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Assessing the effectiveness of blended learning for BS Criminology in Occidental Mindoro State College

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Abstract

This study employed a quantitative research design with a descriptive-correlational approach to assess the effectiveness of blended learning for BS Criminology students and identify challenges encountered during this learning modality. The research focused on analyzing the level of effectiveness, challenges faced, the relationship between these factors, differences based on year level, and proposing relevant policies. Data collection was conducted using a self-constructed survey questionnaire distributed to 300 students from the BS Criminology program at Occidental Mindoro State College, Sablayan Campus. The survey results indicated that blended learning was generally perceived as effective, with fourth-year students rating it higher in areas such as teacher-student communication and technology integration. These students demonstrated a greater familiarity with blended learning, while second-year students encountered more challenges, particularly in balancing online and face-to-face learning. The study found a significant relationship between the perceived effectiveness of blended learning and the extent of challenges, suggesting that students who viewed blended learning as more effective experienced fewer obstacles. Additionally, the research identified differences in effectiveness across year levels. Data analysis utilized weighted mean, Spearman's rho, and one-way analysis of variance (ANOVA) to evaluate the findings. Based on the results, the study recommended implementing policies to enhance technological support, improve teacher-student communication, and provide tailored resources to help younger students adjust to the blended learning environment more effectively. These policies aim to address the varying needs of students across different year levels and improve overall learning outcomes.

Keywords: criminology, blended learning, effectiveness, challenges

Assessing the effectiveness of blended learning for BS Criminology in Occidental Mindoro State College

1. Introduction

The field of criminology has seen significant advancements due to the integration of technology into education. It helps students manage their time, save money, and access courses from anywhere with an internet signal. It is also less expensive and more accessible to a broader spectrum of students. This approach addresses challenges like knowledge explosions, overcrowded lectures, and growing educational demand. Blended learning, combining virtual classrooms and online platforms, offers greater control, clarity, and accessibility for students worldwide. During the COVID-19 pandemic, the education industry promoted remote teaching via television, online teaching, and the Internet for effective learning. (Attard & Holmes, 2020). Due to the increasing number of COVID-19 cases in the country, educational institutions adopted various approaches that could cater to the students' needs and abide by the health protocol at the same time. This study looks into the effect of blended learning on the academic performance of BS Criminology students. The results of the study noted that there was a significant difference in the students' academic performances before and during the implementation of blended learning. The study further showed that BS Criminology students performed better with the traditional learning approach than with blended learning. (Mukay et al, 2023).

Some student characteristics, backgrounds, and design features are significant predictors of student learning. It showed that blended learning design features such as technology quality, online tools, and face-to-face support and student characteristics such as attitudes and self-regulation predicted student satisfaction as an outcome. (Kintu, Zhu, and Kagambe, 2017). In foreign countries blended learning, which is well-known as cross- and mixed-mode learning, is merging online and face-to-face pedagogical methods. Like Asian countries, different scientific articles in the educational literature focus on blended learning. (Gaol & Hutagalong, 2020).

The shift to online education during the COVID-19 pandemic presented new challenges in online distance learning, necessitating a focus on new factors influencing user satisfaction (Chen, 2020). This need aligns with Lemos and Pedro's (2012) observation of a knowledge gap regarding student experiences in e-learning initiatives, despite their central role in the educational process. This research aims to explore the effectiveness of the blended learning approach for criminology students, examining its impact on student outcomes, satisfaction, and skill development. By identifying the benefits and limitations of this educational model, this study seeks to inform educators, policymakers, and institutions about the potential of blended learning to drive innovation in criminology education.

1.1 Objective of the Study

➢ Determine the level of effectiveness of blended learning for BS Criminology

➢ Determine the extent of challenges encountered by the BS Criminology students during their blended learning.

➢ To test if there a significant relationship between the level of effectiveness of blended learning of the BS Criminology Students and the extent of challenges encountered in the conduct of blended learning.

➢ To identify the significant difference in the effectiveness of blended learning in terms of the aforementioned variables when respondents are grouped according to their year level.

➢ Based on the findings, what policies, procedures, and guidelines may be proposed

2. Methodology

This study employs a quantitative research design with a descriptive-correlational approach, enabling the researcher to analyze relationships among variables numerically and statistically. The primary goal is to determine the level of effectiveness and identify challenges associated with blended learning. The study uses survey questionnaires and observations as the main data collection tools, ensuring that the research objectives are adequately addressed and relevant information is gathered. The data were collected from a population of 300 students enrolled in the BS Criminology program at Occidental Mindoro State College, Sablayan Campus. The researcher designed and developed a self-constructed survey questionnaire tailored to the study's specific objectives. The questionnaire utilized a 4-point Likert scale, with clearly defined interpretations for the level of effectiveness (e.g., 1 = "Very Ineffective" to 4 = "Very Effective") and the seriousness of challenges (e.g., 1 = "Not Serious" to 4 = "Very Serious"). This format was selected to ensure clarity and consistency in respondents' answers. Additionally, prior studies were reviewed to validate the questionnaire, and expert input was sought to enhance its reliability and alignment with research objectives.

Before data collection, the researcher secured permission from the Dean of the College of Criminal Justice Education (CCJE) through a formal letter of approval. Upon approval, the survey questionnaires were administered to the participants, accompanied by clear instructions to ensure their proper understanding and completion. The researcher also conducted observations to complement the survey data, adding depth to the analysis and supporting the findings. The collected data were analyzed using appropriate statistical methods to ensure accuracy and reliability. The weighted mean was employed to determine central tendencies, while Spearman's rho was used to examine correlations between variables. To identify significant differences across groups, a one-way analysis of variance (ANOVA) was applied. These statistical tools were chosen for their robustness in analyzing ordinal data and identifying patterns, relationships, and variances within the dataset.

To enhance the validity and reliability of the study, the survey questionnaire underwent expert validation and pilot testing. The validation process ensured that the questions were clear, relevant, and aligned with the research objectives. Pilot testing helped identify and resolve potential ambiguities or biases in the questions, ensuring accurate data collection. Furthermore, the study's reliance on proven statistical methods and triangulation through both surveys and observations added to its credibility. By employing this systematic methodology, the study provides evidence-based conclusions and actionable insights into the effectiveness and challenges of blended learning for BS Criminology students.

3. Results

Personal Growth. Table 1 presents the perceptions of second-year, third year, and fourth-year students regarding the effectiveness of blended learning, which is generally viewed as Effective (E) across all year levels, with some variations in responses. These variations reveal important implications regarding the adaptability and experiences of students at different stages of their academic journey.

For second-year students, the overall mean score of 3.24 (SD = 0.44) reflects a positive reception to blended learning, particularly in terms of adapting to the new normal (M = 3.34, SD = 0.53) and engaging in social presence and interaction (M = 3.28, SD = 0.54). This suggests that, despite being relatively new to blended learning, second-year students are able to adapt to technological integration and social engagement, as emphasized by Hrastinski (2019), who pointed out that blended learning improves students' adaptability by combining online and offline methods. However, the slight variability in standard deviations (SD) signals that not all students have the same level of comfort with these aspects, possibly due to different learning backgrounds or initial apprehension towards blended formats.

Third-year students demonstrate a slight increase in their overall mean score to 3.30 (SD = 0.53), with a stronger appreciation for adaptability (M = 3.38, SD = 0.61) and self-assessment (M = 3.34, SD = 0.60). This higher score

suggests that third-year students are becoming more autonomous and reflective in their learning processes, aligning with Bernard et al. (2014), who found that blended learning enhances self- regulation and personal reflection. The slight variability in their responses, reflected by higher standard deviations, may imply that while students are benefiting from these aspects, individual experiences with the flexibility of blended learning still vary. This variability could be attributed to the differences in how instructors structure their courses, as noted by Cleveland-Innes and Wilton (2018), who emphasized the crucial role of instructors in creating effective blended learning experiences.

Fourth-year students exhibit the highest overall satisfaction with a mean score of 3.60 (SD = 0.51), highlighting their growing familiarity with blended learning. Their positive views on teacher-student communication (M = 3.68, SD = 0.59) and the breakdown of barriers through mixed learning methods (M = 3.65, SD = 0.59) are particularly significant. These findings are consistent with Garrison and Kanuka (2004), who observed that blended learning fosters stronger teacher-student connections, especially among more experienced students. This suggests that fourth-year students, having spent more time in a blended environment, are able to leverage both online and face-to-face interactions to build more meaningful relationships with their instructors and peers.

Table 1
Level of Effectiveness of Blended Learning in terms of Personal Growth

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
Through blended learning, students can discover their own capacity to adapt to the new normal by doing activities online and in person.	3.34	0.53	E	3.28	0.67	E	3.47	0.64	E
Blended learning promotes flexibility in various learning styles.	3.22	0.55	E	3.26	0.70	E	3.58	0.70	E
It boosts an individual's ability to adjust to changing conditions/ circumstances and new challenges.	3.25	0.54	E	3.38	0.61	E	3.56	0.68	VE
In blended learning there is a positive teacher-student and peer-to-peer relationship in terms of communication	3.23	0.55	E	3.25	0.68	E	3.68	0.59	VE
Blended learning cuts the barriers brought by the distance between the teachers and students through online and in-person teaching and learning methods.	3.19	0.60	E	3.31	0.64	E	3.65	0.59	VE
It allows students to take ownership of their learning journey, contributing to their sense of responsibility and independence.	3.22	0.54	E	3.31	0.62	E	3.61	0.65	VE
Blended learning environments provide opportunities for self- assessment and reflection for students to track their progress, identify strengths and limitations, and cultivate self-awareness.	3.22	0.51	E	3.34	0.60	E	3.67	0.51	VE
Students in a blended learning environment often have to take the initiative in finishing online modules, participating in conversations, and meeting deadlines.	3.26	0.58	E	3.27	0.66	E	3.61	0.58	VE
Blended learning allows students to work at their own pace which lessens stress levels.	3.2	0.62	E	3.28	0.63	E	3.58	0.63	VE
Students in blended learning engage in social presence and interaction.	3.28	0.54	E	3.34	0.57	E	3.65	0.57	VE
Overall Mean	3.24	0.44	E	3.3	0.53	E	3.6	0.51	E

The Very Effective (VE) rating also implies that with increased exposure, students become more proficient in

navigating both the technological and interpersonal dynamics of blended learning. The trend of increasing satisfaction from second- to fourth-year students points to the role of academic maturity in shaping students' perceptions of blended learning. As Vaughan (2007) and Owston et al. (2019) suggest, senior students are typically more adept at managing self-directed learning and collaborative work, allowing them to fully benefit from the flexible, interactive nature of blended learning. This progression highlights that, as students advance in their academic journey, they develop greater proficiency in balancing the demands of different learning modalities, ultimately leading to a more rewarding and effective learning experience. The implications of these findings underscore the importance of scaffolding blended learning environments effectively to meet the evolving needs of students at different stages of their education.

Instructor Competency and Effectiveness. Table 2 provides insights into students' perceptions of the effectiveness of blended learning based on several instructional indicators across different academic levels. The overall mean scores indicate a gradual increase in satisfaction from second-year students (M = 3.23, SD= 0.48), to third-year students (M = 3.33, SD = 0.53), and the highest among fourth-year students (M = 3.54, SD = 0.59). This progression suggests that as students advance through their academic journey, they develop a more positive perception of blended learning, viewing it as more effective in facilitating their learning experience. Notably, fourth-year students rated several aspects as Very Effective (VE), indicating greater satisfaction with blended learning compared to the lower-year levels, who rated the learning experience as merely Effective (E).

One key finding is that fourth-year students perceive instructors as more capable of fluidly shifting between in-person and online methods (M = 3.59, SD = 0.63) and skillfully integrating multimedia and interactive resources (M = 3.62, SD = 0.63) to enhance the learning experience. These aspects were viewed as Very Effective by fourth-year students, compared to the lower mean scores from second-year (M = 3.22, SD = 0.59) and third-year students (M = 3.31, SD = 0.59). This shift in perception highlights the growing familiarity and comfort of senior students with blended learning, as they are likely more experienced in navigating the technological and pedagogical dynamics of this approach. Moreover, fourth-year students place high value on the instructor's prompt feedback and personalized guidance (M = 3.56, SD = 0.61), which is seen as a key factor in facilitating their development and understanding of the course material. This indicates that as students become more academically mature, they increasingly recognize the importance of timely and constructive feedback in their learning process. Additionally, the emphasis on designing engaging content that promotes self-reflection and self-assessment (M = 3.5, SD = 0.66) further supports the idea that senior students appreciate opportunities for deeper learning and personal growth through blended methods.

The implications of these findings are significant. First, the data suggests that students' academic maturity plays a crucial role in their perceptions of blended learning effectiveness. As students advance in their studies, they become more adept at managing the self-directed and collaborative elements of blended learning, which enhances their satisfaction. This aligns with research by Vaughan (2007), who emphasized that senior students are typically more proficient in self-regulation and managing the demands of blended environments. Additionally, the positive ratings from fourth-year students regarding instructor performance in online and face-to-face settings suggest that experienced students are better equipped to take advantage of the flexibility and interactivity offered by blended learning. This corroborates findings from Owston et al. (2019), who noted that senior students are often better positioned to navigate the challenges of blended learning.

Lastly, the study highlights the importance of continuous professional development for instructors in mastering the blended approach. Since fourth-year students expressed higher satisfaction with instructors' ability to fluidly switch between teaching methods and integrate engaging content, this underscores the need for teachers to continually enhance their technological and pedagogical skills to meet the evolving needs of students. As Cleveland-Innes and Wilton (2018) point out, the efficacy of blended learning largely depends on the instructor's capacity to scaffold and design meaningful learning experiences. Therefore, institutions should invest in training and support for educators to ensure they can effectively deliver blended learning across all year levels.

Table 2

Level of Effectiveness of Blended Learning in terms of Instructor Competency and Effectiveness

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	**SD**	**VI**	**M**	**SD**	**VI**	**M**	**SD**	**VI**
The teacher displayed an extraordinary ability to fluidly change teaching methods between in-person and online sessions.	3.22	0.59	E	3.31	0.59	E	3.59	0.63	VE
The instructor's skill in combining multimedia, interactive resources, and online collaboration tools enhanced the learning experience, making the course content accessible and engaging for all learners.	3.17	0.65	E	3.31	0.65	E	3.62	0.63	VE
Both online and in-person, the instructor effectively facilitated active involvement and conversations.	3.21	0.58	E	3.31	0.65	E	3.5	0.66	VE
Students valued the instructor's prompt feedback and tailored advice which considerably aided students' development and knowledge of the course material.	3.27	0.48	E	3.3	0.62	E	3.56	0.61	VE
Instructors design engaging online content that encourages self-reflection learning by incorporating opportunities for goal setting, self-assessment, and reflection into the curriculum.	3.24	0.57	E	3.36	0.61	E	3.5	0.66	VE
Blended learning detects the administrators' educational requirements as well as their current competencies in leadership.	3.23	0.57	E	3.32	0.61	E	3.5	0.66	VE
Blended learning employed by teachers to promote meaningful and authentic learning.	3.2	0.59	E	3.32	0.63	E	3.45	0.73	VE
Blended learning is vital in determining the capabilities of blended educators as bases for proficiency enhancement.	3.23	0.5	E	3.36	0.59	E	3.59	0.61	E
Blended learning necessitates numerous changes and practices through technology application and face-to- face interaction.	3.24	0.52	E	3.34	0.64	E	3.56	0.68	VE
Keep information engaging and relevant across all platforms and promote a dynamic and participatory learning experience for all students.	3.24	0.58	E	3.34	0.64	E	3.53	0.71	VE
Overall Mean	3.23	0.48	E	3.33	0.53	E	3.54	0.59	VE

Technology Proficiency. The data in Table 3 illustrates students' perceptions of technological proficiency and the use of digital tools in blended learning across second-year, third-year, and fourth-year levels. The overall mean scores reveal a progressive increase in satisfaction, with second-year students rating the experience as Effective (M = 3.22, SD = 0.45), third-year students similarly viewing it as Effective (M = 3.31, SD = 0.53), and fourth-year students rating it as Very Effective (M = 3.53, SD = 0.51). This upward trend indicates that as students advance academically, they become more accustomed to blended learning environments and perceive them as more effective in terms of technological integration and learning facilitation.

Specifically, fourth-year students rated several aspects as Very Effective (VE), such as the instructor's technological proficiency (M = 3.52, SD = 0.66) and the integration of interactive multimedia to cater to different learning styles (M = 3.52, SD = 0.64). These ratings suggest that senior students, having had more exposure to blended learning, have developed higher expectations for and satisfaction with the seamless use of digital tools. Additionally, the high mean score for the teacher's technical assistance (M = 3.56, SD = 0.56) highlights the importance of instructors' ability to support students in overcoming technological barriers, ensuring that learning is not disrupted by technical difficulties. Moreover, the increased satisfaction among fourth-year students concerning the use of mobile technologies and social media (M = 3.56, SD = 0.56) suggests that more experienced students see these tools as valuable enablers of learning, particularly in promoting communication and collaboration both inside and outside the classroom. This is consistent with their higher appreciation of technology facilitating online discussions and real-time interactions (M = 3.52, SD = 0.61).

The implications of these findings are clear: as students become more familiar with blended learning, their expectations and experiences improve, resulting in higher satisfaction, particularly in terms of technological integration. This aligns with the research of Vaughan (2007) and Owston et al. (2019), who argue that senior students are often more capable of managing the complexities of blended learning, which requires both self-directed learning and proficiency with digital tools. Additionally, the growing reliance on mobile technologies and social media reflects the evolving nature of education, where these platforms are not just supplementary but integral to the learning process.

For educators, these results highlight the need to continuously improve their technological proficiency and provide robust technical support to ensure that students can fully engage with blended learning environments. Institutions should also focus on offering training for both students and faculty on effective use of digital tools, as well as integrating more interactive and multimedia content to meet the diverse needs of learners. These strategies will help ensure that blended learning remains effective and continues to meet students' evolving expectations.

Table 3
Level of Effectiveness of Blended Learning in terms of Technology Proficiency

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
The instructor demonstrated exceptional technological proficiency by seamlessly integrating various digital tools and platforms, resulting in a user-friendlyand unified learning experience.	3.19	0.64	E	3.36	0.59	E	3.52	0.66	VE
Students appreciated the course's use of interactive multimedia, showcasing the instructor's skill in creating engaging content that caters to different learning styles.	3.24	0.57	E	3.32	0.64	E	3.52	0.64	VE
The instructor demonstrated proficiency in technology by effectively facilitating online communication, collaboration, and community among students through discussion forums, video conferences, and real-time chat sessions.	3.22	0.51	E	3.28	0.61	E	3.52	0.61	VE
Students appreciated the teacher's technical assistance, enabling effective use of learning platforms and digital tools, overcoming technological hurdles, and allowing focus on course material and objectives.	3.25	0.53	E	3.32	0.61	E	3.56	0.56	VE
Students were able to use technology in their own unique way.	3.27	0.5	E	3.31	0.58	E	3.55	0.59	VE
The student's success is dependent on the ability to cope with technical difficulty as well as technical skills in computer operations and internet navigation.	3.18	0.52	E	3.3	0.62	E	3.48	0.66	VE
The flipped classroom approach in blended learning is highly effective for students as it allows them to prepare online learning activities.	3.15	0.56	E	3.31	0.66	E	3.59	0.53	E
With The increasing presence of technology, and social behavioral science (psychology, psychobiology, anthropology, sociology, economics, and cognitive science), students learn to communicate in and out of class.	3.31	0.52	E	3.3	0.6	E	3.56	0.64	VE
The rapid use of mobile technologies and social media was considered an enabler of blended learning.	3.22	0.59	E	3.32	0.58	E	3.56	0.56	VE
Students are equipped with knowledge on how to make use of the necessary gadgets for blended learning.	3.22	0.52	E	3.31	0.65	E	3.5	0.66	VE
Overall Mean	3.22	0.45	E	3.31	0.53	E	3.53	0.51	VE

Access to Learning Resources. The data in table 4 reveals a clear progression in students' perceptions of the

effectiveness of blended learning platforms across second-year, third-year, and fourth-year students. The overall mean scores increase from second-year (M = 3.23, SD = 0.46) and third-year (M = 3.31, SD = 0.52), both rated as "Effective" (E), to fourth-year students rating the platform as "Very Effective" (VE) (M= 3.56, SD = 0.56). This trend suggests that as students' progress through their academic journey, they develop a stronger appreciation for the blended learning tools, becoming more proficient and comfortable in using them to enhance their learning experience.

For fourth-year students, several indicators were rated as Very Effective, such as access to diverse learning tools (M = 3.58, SD = 0.58), 24/7 study resources (M = 3.59, SD = 0.55), and the ability to adapt learning to individual styles (M = 3.53, SD = 0.71). These ratings imply that senior students, who may have more complex learning needs, highly value the flexibility and personalized learning experience that blended platforms offer. Additionally, they recognize the role of practical examples and case studies (M = 3.59, SD= 0.58) in deepening their understanding of course material, bridging the gap between theory and practice. Interestingly, the fourth-year cohort rated indicators related to resource accessibility, timely updates, and intuitive interfaces as Very Effective (e.g., "students can complete assigned tasks with available resources" M = 3.61, SD = 0.55), highlighting the importance of ease of navigation and immediate access to resources as they prepare for more demanding academic tasks.

The implications of these findings suggest that as students advance in their studies, they increasingly rely on blended learning platforms to meet their diverse and evolving educational needs. This progression underscores the need for institutions to ensure that these platforms remain adaptive, user-friendly, and equipped with comprehensive resources that cater to different learning styles. For educators, this emphasizes the importance of curating diverse materials and updating resources regularly, as timely notifications and easy access play a significant role in student engagement and academic success. The integration of real-life case studies and practical examples further enhances student learning outcomes, especially for senior students preparing for real-world applications of their knowledge. These findings also suggest that blended learning platforms can be powerful tools for promoting personalized education, fostering sustainable learning practices, and equipping students with the necessary skills to navigate complex academic and real-life challenges.

Table 4
Level of Effectiveness of Blended Learning in terms of Access to Learning Resources

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
The blended learning platform offered students a diverse range of learning tools, including e-books, articles, videos, and interactive modules, enhancing their learning experience through convenient access from anywhere.	3.28	0.51	E	3.42	0.53	E	3.58	0.58	VE
Study resources are available 24/7, enabling students to study at their own pace and meet their needs, thereby enhancing their overall learning experience.	3.16	0.63	E	3.25	0.66	E	3.59	0.55	VE
The platform caters to diverse learning styles and preferences, enabling students to choose materials that suit their individual needs, resulting in a personalized and adaptive learning experience.	3.21	0.58	E	3.31	0.62	E	3.53	0.71	VE
The combined learning resources significantly enhanced students' understanding and engagement with the subject matter by providing practical examples and case studies that connected theoretical knowledge to real-life situations.	3.23	0.52	E	3.35	0.51	E	3.59	0.58	VE
Students dedicate their time to connecting and locating relevant resources to complete their assigned tasks.	3.23	0.5	E	3.25	0.63	E	3.61	0.55	VE

The website is available for students to access through open-access links.	3.22	0.62	E	3.32	0.57	E	3.52	0.66	VE
Blended learning platforms promote sustainable living, building on an e- hub with sub-portals in "search" to facilitate activities such as "Education for Sustainable Development" (ESD), webinars, authentic learning, and the role of m-e-learning.	3.22	0.57	E	3.36	0.55	E	3.55	0.61	VE
The accessibility of resources provided to students allows them to review, reinforce, and explore concepts at their own pace.	3.21	0.58	E	3.31	0.62	E	3.52	0.71	VE
Students value timely notifications and updates on new materials, ensuring they stay informed and have access to the latest information for their studies.	3.27	0.55	E	3.32	0.64	E	3.55	0.68	VE
Students involve intuitive interfaces, simple navigation, and clear categorization of learning materials that make it easy for them to find and engage with the resources they require.	3.23	0.6	E	3.25	0.61	E	3.58	0.63	VE
Overall Mean	3.23	0.46	E	3.31	0.52	E	3.56	0.56	VE

Satisfaction. The data reveals a clear progression in student satisfaction with blended learning as they move from their second to fourth year (Table 5). Across various indicators, second- and third-year students rated the blended learning method as "Effective" (E), with overall means of 3.24 (SD = 0.47) and 3.29 (SD = 0.56), respectively. However, by their fourth year, students found the method "Very Effective" (VE), with a higher overall mean of 3.56 (SD = 0.60). This increase in satisfaction suggests that as students become more familiar with both online and in-person learning environments, they increasingly benefit from the flexibility, resources, and autonomy that blended learning offers.

For example, the flexibility provided by blended learning, which allows students to balance their academic responsibilities with other commitments, was rated significantly higher by fourth-year students (M= 3.61, SD = 0.58) compared to second- and third-year students (M = 3.27, SD = 0.52; M = 3.25, SD = 0.70). This trend is consistent with studies by Bernard et al. (2014), which found that senior students are more adept at managing self-directed learning and handling the flexible nature of blended learning. Similarly, the importance of timely feedback and strong teacher-student relationships was rated much higher by fourth-year students (M = 3.56, SD = 0.64) compared to younger students, indicating that the ability to engage in meaningful interactions with professors becomes more appreciated as students' progress in their studies.

The availability of abundant learning resources such as online libraries, interactive modules, and multimedia content also received higher ratings from senior students (M = 3.58, SD = 0.61), further highlighting the critical role these resources play in supporting advanced learning. This aligns with the findings of Lim and Morris (2009), who found that access to diverse learning materials significantly improves students' comprehension and satisfaction in blended learning environments. However, younger students (second and third year) rated many of these factors slightly lower, which could indicate initial struggles with the blended learning format. Research by Wong et al. (2020) supports this observation, as they found that less experienced students often struggle with time management and adjusting to the independence required for successful blended learning. This suggests that institutions should offer additional support for younger students, such as orientation on self-regulation and time management strategies for navigating blended learning environments.

The implications of these findings are clear: educators and institutions must continue to enhance the features of blended learning to support students at different stages of their academic journey. For younger students, more structured support and guidance may be necessary, while for senior students, maintaining flexibility, providing diverse resources, and ensuring strong communication channels with instructors will be key to sustaining engagement and academic success.

Table 5
Level of Effectiveness of Blended Learning in terms of Satisfaction

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	**SD**	**VI**	**M**	**SD**	**VI**	**M**	**SD**	**VI**
The blended learning method, combining online and in-person experiences, was engaging and motivating for students through engaging sessions and multimedia content.	3.26	0.56	E	3.29	0.68	E	3.59	0.61	VE
Learners appreciated the flexibility of blended learning, which allowed them to access course materials online and attend in-person sessions, enabling them to balance their studies with other commitments.	3.27	0.52	E	3.25	0.70	E	3.61	0.58	VE
Students appreciated the professors' quick response to questions and friendly nature, which enhanced the overall learning experience.	3.22	0.56	E	3.29	0.63	E	3.56	0.64	VE
The abundance of resources like online libraries, interactive modules, and multimedia content significantly enhanced students' learning and subject comprehension.	3.25	0.56	E	3.33	0.60	E	3.58	0.61	VE
Students are pleased with the relationship between distance learning and student progress, autonomy, and pleasure in the field of distance learning.	3.25	0.54	E	3.32	0.67	E	3.58	0.63	VE
Positive comments often focus on the flexibility offered by blended learning, allowing students to access materials at their own pace and convenience.	3.29	0.51	E	3.26	0.65	E	3.55	0.66	VE
Students appreciate the ability to monitor their progress, receive constructive feedback, and make necessary adjustments to enhance their understanding of the course material.	3.22	0.57	E	3.32	0.55	E	3.53	0.71	VE
Positive feedback expresses gratitude for the progress of tracking tools and fast feedback.	3.19	0.57	E	3.29	0.67	E	3.50	0.73	VE
Positive feedback often highlights the variety of multimedia, collaborative tools, and interactive content that enhance the overall learning process	3.27	0.50	E	3.28	0.65	E	3.55	0.68	VE
In blended learning, there is a high level of satisfaction between a student-to-student relationship and a teacher-to-student relationship.	3.22	0.56	E	3.30	0.64	E	3.59	0.68	VE
Overall Mean	3.24	0.47	E	3.29	0.56	E	3.56	0.60	VE

Summary on the Level of Effectiveness of Blended Learning. Data in Table 6 demonstrate a progressive increase in students' ratings across all parameters as they advance from their second to fourth year. The overall mean for second-year students was 3.23, interpreted as "Effective" (E), while third-year students rated these parameters slightly higher at 3.31 (E). By their fourth year, students rated all parameters as "Very Effective" (VE), with an overall mean of 3.56. This suggests that senior students perceive their personal growth, instructor competency, technology proficiency, access to resources, and overall satisfaction with the learning experience more positively as they mature in their academic journey. Fourth-year students rated their personal growth significantly higher (M = 3.6, VE) than second-year (M = 3.24, E) and third-year students (M = 3.3, E). This trend could be attributed to the increasing responsibilities and independence that come with advanced studies, which allow students to develop more holistically. Studies like Zimmerman (2002) corroborate this finding, emphasizing that self-regulated learning and personal growth tend to improve as students become more experienced in managing their academic workload.

Similarly, perceptions of instructor competency increased from second-year (M = 3.23, E) to fourth-year (M = 3.54, VE) students. This could be a reflection of students' growing ability to engage more critically with course content and instructional methods. According to studies by Kember and Gow (2009), students often develop a

deeper appreciation for effective teaching as they advance in their academic careers, particularly as courses become more specialized and aligned with their career goals. The ability to navigate technology and access learning resources also received higher ratings from fourth-year students (M = 3.53 and M = 3.56, VE), indicating greater familiarity and comfort with digital tools and resources. As students gain more experience with technology over time, they become better equipped to use these resources effectively. Research by Garrison and Vaughan (2008) supports this, highlighting that students in upper-level courses often demonstrate greater digital literacy and confidence in using technological platforms to support their learning. Finally, satisfaction with the learning experience also increased as students progressed through their studies, with fourth-year students reporting significantly higher levels of satisfaction (M = 3.56, VE) than their second- (M = 3.24, E) and third year (M = 3.29, E) counterparts. This aligns with findings from Dziuban et al. (2006), who noted that students become more satisfied with blended and technology-supported learning environments as they develop the skills to balance academic demands with personal responsibilities.

Table 6
Summary of the Level of Effectiveness of Blended Learning

Parameters	2nd Year (n=116)		3rd Year (n=118)		4th Year (n = 66)	
	M	VI	M	VI	M	VI
Personal Growth	3.24	E	3.3	E	3.6	VE
Instructor Competency and Effectiveness	3.23	E	3.33	E	3.54	VE
Technology Proficiency	3.22	E	3.31	E	3.53	VE
Access to Learning Resources	3.23	E	3.31	E	3.56	VE
Satisfaction	3.24	E	3.29	E	3.56	VE
Overall Mean	**3.23**	**E**	**3.31**	**E**	**3.56**	**VE**

The increasing ratings across these parameters indicate that educational institutions must continuously adapt their support for students at different stages of their academic journey. For younger students, there may be a need for additional guidance in technology use, personal growth, and engagement with instructors, while senior students benefit from more autonomy, access to advanced resources, and a deeper connection with their instructors. Tailoring resources and support based on the student's academic level can enhance learning outcomes and overall satisfaction with the educational experience. These results suggest that as students become more comfortable with technology and self-directed learning, they not only perform better but also feel more positive about their growth and the support they receive. Institutions should therefore focus on strengthening digital infrastructure, providing diverse and flexible learning resources, and ensuring instructor competency to maintain high levels of student satisfaction throughout their academic journey.

Personal Growth. The data indicates that students across all year levels consistently rated their challenges in a blended learning environment as "Moderately Satisfactory" (MS), with some noticeable trends over time. The second-year students recorded an overall mean of 2.44, while third-year students slightly decreased to 2.27, and by the fourth year, students gave an even lower rating of 1.86. These declining ratings suggest that students' struggles with blended learning decrease as they progress through their academic years.

Second-year students struggled more with balancing online and face-to-face modalities (M = 2.34, SD = 0.88), and this challenge becomes less pronounced in the fourth year (M = 1.83, SD = 0.99). The ability to manage time and remain motivated also showed a similar trend, with second-year students reporting higher difficulty (M = 2.47, SD = 0.91), which diminished as students advanced to the fourth year (M = 1.94, SD = 1.07). These findings align with studies suggesting that experience with blended learning over time helps students develop better self-regulation and time management skills (Broadbent & Poon, 2015).

Social isolation and the decrease in face-to-face interactions were rated as a significant concern for second-year students (M = 2.44, SD = 0.88). By the fourth year, this concern reduced (M = 1.82, SD = 1.01), indicating that students might become more comfortable with limited physical interaction as they mature in their studies. This pattern is consistent with the findings of Hrastinski (2019), which suggest that as students gain experience with online learning, they develop alternative strategies for building relationships and seeking social support in

virtual environments.

Table 7
Extent of the Challenges Encountered During Blended Learning in terms of Personal Growth

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
Balancing the requirements of self- paced online learning with in- person sessions.	2.34	0.88	MS	2.17	0.95	MS	1.83	0.99	MS
Struggling with self-motivation to remain focused and effectively manage my time between online and face-to-face modalities.	2.47	0.91	MS	2.22	0.94	MS	1.94	1.07	MS
Students may struggle to accommodate to different teaching methods, approaches, and expectations across these many modalities.	2.44	0.84	MS	2.28	0.96	MS	1.86	1.04	MS
Blended learning, despite its advantages, may lead to a decrease in face-to-face social interactions, potentially causing personal isolation and hindering personal growth and holistic development.	2.44	0.88	MS	2.24	0.95	MS	1.82	1.01	MS
Inadequate social interaction and motivation	2.44	0.93	MS	2.20	0.94	MS	1.83	1.05	MS
Blended learning may enable you to avoid rote learning.	2.36	0.86	MS	2.18	0.93	MS	1.83	1.02	MS
As students must balance their schedules while remaining motivated to finish online modules or activities, blended learning frequently necessitates a high level of self-discipline and time management.	2.54	0.90	S	2.32	1.01	MS	1.83	1.00	MS
Most of the respondents need to seek social support to cope with blended learning.	2.47	0.84	MS	2.35	1.02	MS	1.86	0.97	MS
In blended learning students may experience ascertain issues, concerns, and problems in a blended learning environment, elicit and explore students' coping mechanisms and learning strategies.	2.45	0.90	MS	2.35	1.01	MS	1.89	1.04	MS
Due to a lack of interaction and the learners' ability to cope, the student and teacher qualities can become limited.	2.47	0.91	MS	2.40	1.00	MS	1.85	1.00	MS
Overall Mean	2.44	0.80	MS	2.27	0.87	MS	1.86	0.94	MS

Self-discipline, particularly in completing online modules, was one of the few parameters rated as "Satisfactory" (S) by second-year students (M = 2.54, SD = 0.90) but became "Moderately Satisfactory" by the fourth year (M = 1.83, SD = 1.00). The need for social support in coping with blended learning was also noted, with second-year students rating it at M = 2.47, SD = 0.84, compared to M = 1.86, SD = 0.97 in the fourth year. This suggests that as students advance, they require less external support, likely due to their increased familiarity with independent learning strategies (Kuo et al., 2014). These results highlight the importance of providing additional support for younger students who are new to blended learning environments. Early in their academic careers, students might struggle with time management, motivation, and the lack of social interaction. Educators and institutions can offer targeted interventions, such as time management workshops, peer mentoring, and fostering virtual communities, to help ease the transition into blended learning.

As students advance, they appear to become more adept at managing the complexities of blended learning, indicating a reduced need for intervention in later years. However, the diminishing need for social interaction also suggests that institutions should explore ways to maintain student engagement and prevent isolation, particularly in the early stages of academic programs. These findings support the idea that with proper guidance and resources, students can overcome initial difficulties in blended learning and develop into self-directed learners capable of thriving in hybrid learning environments. Studies by Garrison and Kanuka (2004) emphasize the critical role of social presence and cognitive development in blended learning, further reinforcing the need for institutions to provide ongoing support across various year levels.

Instructor Competency and Effectiveness. The analysis of student ratings regarding the challenges instructors face in blended learning reveals a consistent pattern across 2nd-year, 3rd-year, and 4th-year students. The 2nd-year students rated these challenges the highest, with most indicators interpreted as **Satisfactory** (S), such as the integration of new technologies into classrooms (M = 2.55, SD = 0.87) and the need for instructors to restructure learning processes (M = 2.60, SD = 0.91). This suggests that younger students perceive these challenges as more significant, likely due to their limited experience with blended learning environments. In contrast, 3rd-year and 4th-year students rated these challenges lower, with most indicators falling into the Moderately Satisfactory (MS) range, indicating that as students' progress, they may become more accustomed to the blended learning format, perceiving these challenges as less impactful.

For example, the difficulty in balancing online and in-person approaches saw a gradual decrease in ratings from the 2nd year (M = 2.55, SD = 0.90) to the 4th year (M = 1.97, SD = 1.04). Similarly, the perceived inability of instructors to comprehensively assess students' skills also saw a decrease from 2nd-year (M = 2.59, SD = 0.92) to 4th-year students (M = 2.00, SD = 1.08). The ratings for technical issues like poor internet connectivity and platform glitches also decreased across year levels, from 2nd-year (M = 2.62, SD = 0.84) to 4th-year students (M = 2.03, SD = 1.10), suggesting that students might either be more tolerant of these issues or have developed coping mechanisms over time. These results indicate that 2nd-year students may need more support and guidance in adapting to blended learning environments, as they perceive technological and instructional challenges as more pronounced. Instructors and institutions should focus on providing additional resources and training, particularly for early-year students, to ease their transition into blended learning. Furthermore, technical support and faculty development programs should be prioritized to address the challenges of integrating digital tools, balancing teaching methods, and managing technical issues.

From an instructional standpoint, it is crucial for educators to focus on strategies that maintain student engagement and coherence between online and in-person content, as these were consistently rated as moderate challenges across all year levels. Additionally, as noted in studies by Garrison and Vaughan (2008) and Graham (2013), the success of blended learning hinges on adequate institutional support, both in terms of technology and instructional design. Such support can help alleviate the pressures on instructors to balance different teaching modalities and ensure a smooth, integrated learning experience for students.

Table 8
Extent of challenges encountered during blended learning in terms of instructor competency and effectiveness

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
Teachers may face challenges in integrating new technologies and digital tools into their classrooms, affecting learning management systems, multimedia integration, and ensuring a pleasant technological experience for students.	2.55	0.87	S	2.35	1.00	MS	1.89	1.02	MS
Instructors are forced to restructure the learning process and adjust their classroom material to accommodate such change, or else lectures will appear tedious to most students.	2.60	0.91	S	2.33	1.00	MS	1.89	1.02	MS
Instructors may find it difficult to establish a balance between these two approaches while ensuring content coherence and engagement across both platforms. It might be challenging to coordinate online and in-person educational approaches.	2.55	0.90	S	2.33	0.99	MS	1.97	1.04	MS
Inability of the Instructor to comprehensively assess the skills of the students.	2.59	0.92	S	2.33	0.96	MS	2.00	1.08	MS

Parents' perceptions of the blended learning modality and teachers' proficiency during online sessions may not be met.	2.54	0.90	S	2.31	0.97	MS	2.05	1.07	MS
Blended learning may enable you to avoid rote learning.	2.57	0.90	S	2.32	1.00	MS	2.06	1.11	MS
Instructor characteristics may be difficult to discern during an online session.	2.53	0.89	S	2.33	0.98	MS	2.00	1.08	MS
Instructors must navigate the challenge of adapting their teaching methods to accommodate different learning styles, ensuring that the material is accessible and engaging for all students.	2.57	0.90	S	2.32	1.00	MS	2.06	1.11	MS
Instructors often face challenges related to technical issues such as poor internet connectivity, platform glitches, or hardware malfunctions.	2.62	0.84	S	2.35	1.03	MS	2.03	1.10	MS
Due to a lack of technical abilities required for blended learning, the instructor may become ineffective.	2.59	0.90	S	2.37	1.03	MS	1.97	1.05	MS
Overall Mean	2.57	0.81	S	2.33	0.91	MS	1.99	1.02	MS

Technology Proficiency. The data reflects the challenges faced by 2nd, 3rd, and 4th-year students in online and blended learning environments. Each indicator provides insights into key areas where difficulties are more or less pronounced depending on the students' academic year. Most indicators fall under the "Serious" (S) category, with mean scores between 2.50 and 2.67. This suggests that 2nd-year students experience significant difficulties in areas such as internet access, use of instructional tools, lack of gadgets, and participation in online discussions. These students are most affected by inadequate infrastructure and training gaps. The majority of indicators fall under the "Moderately Serious" (MS) category, with mean scores ranging from 2.39 to 2.50. While challenges persist, they are less severe compared to those faced by 2nd- year students. This could imply that 3rd-year students are becoming more familiar with the online learning environment and its tools but still face technical issues and a need for additional training. The indicators for 4th-year students are consistently in the "Moderately Serious" (MS) range, with mean scores between 1.95 and 2.06. The lower scores reflect that 4th-year students have developed more effective strategies to navigate the challenges of online learning, likely due to accumulated experience and better adaptability to technological demands.

The results highlight a significant learning curve that students face as they progress through their academic years, with the severity of challenges lessening in later years. Institutions must focus on providing targeted interventions, particularly for 2nd-year students who struggle the most. This could include improving access to internet and technological resources, offering comprehensive digital literacy training, and ensuring smooth integration of multiple digital tools. For 3rd and 4th-year students, ongoing support to enhance their technical proficiency and ensure reliable access to learning resources is essential. Addressing these challenges can improve students' engagement and performance in blended learning environments. This is supported by several studies which emphasize the detrimental impact of poor internet access and technological issues on students' online learning experiences. A study by Tichavsky et al. (2015) showed that inadequate internet and technical problems are significant barriers to effective learning in virtual classrooms, leading to frustration and reduced engagement. Also, Research by Zhang et al. (2020) underscores the importance of digital literacy for both instructors and students. Their study found that a lack of adequate training in digital tools leads to inefficiencies in online teaching and learning, supporting the findings that both groups require additional training to effectively navigate online platforms.

Access to Learning Resources. The data from 2nd, 3rd, and 4th-year students (n = 116, 118, and 66, respectively) indicate that while students across all academic years face significant challenges in online and blended learning environments, these challenges tend to diminish as students' progress through their studies. Key observations reveal that technological access and resources remain critical challenges, particularly for 2nd-year students, with

a mean rating of 2.58 to 2.60. While this issue slightly improves for 3rd-year students (mean = 2.46) and further decreases for 4th-year students (mean = 1.95), it still remains a significant concern. This suggests that senior students may have adapted better or acquired more resources, although the digital divide persists. Similarly, difficulty navigating multiple online platforms is most prominent among 2nd-year students (mean = 2.68) and remains a challenge for 3rd-year students (mean = 2.45), before easing somewhat for 4th-year students (mean = 2.02). This trend points to increased familiarity with online tools among senior students.

Table 9
Extent of the Challenges Encountered During Blended Learning in terms of Technology Proficiency

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	**SD**	**VI**	**M**	**SD**	**VI**	**M**	**SD**	**VI**
Inadequate internet access, software malfunctions, or compatibility issues between multiple tools and platforms may impede the smooth transmission of course information, causing harm to both instructors and students.	2.57	0.86	S	2.42	0.96	MS	1.95	1.07	MS
Instructors and students may need additional training to effectively use various instructional devices, which can lead to a learning curve that impacts teaching and learning processes.	2.61	0.86	S	2.39	1.00	MS	1.98	1.07	MS
Online learning can be challenging due to difficulties in using interactive tools and students struggling with active participation in digital discussions or activities.	2.59	0.87	S	2.49	1.04	MS	2.00	1.04	MS
The online learning environment may face challenges in protecting personal and sensitive information, potentially affecting trust and confidence among instructors and students.	2.59	0.88	S	2.43	0.97	MS	2.02	1.06	MS
Not all of the students have gadgets and internet connections.	2.67	0.91	S	2.50	1.00	S	2.03	1.08	MS
The challenge lies in the absence of necessary facilities and technologies for blended learning.	2.55	0.87	S	2.44	0.97	MS	2.00	1.07	MS
Lack of physical examination maneuvers during online sessions.	2.50	0.89	S	2.49	0.98	MS	2.03	1.11	MS
Some students are having difficulties in regularly going online.	2.64	0.88	S	2.46	1.00	MS	2.06	1.12	MS
Blended learning faces challenges like incorporating digital technology, requiring skills and knowledge, and improving students' reading comprehension abilities.	2.60	0.85	S	2.47	1.02	MS	1.98	1.09	MS
Participants are most challenged through carrying out a lesson and a lack of resources.	2.63	0.91	S	2.49	1.04	MS	1.98	1.05	MS
Overall Mean	2.59	0.80	S	2.46	0.93	MS	2.00	1.04	MS

Access to learning materials, such as digital libraries or licensed content, also presents challenges across all years, with 4th-year students showing slightly more ease (mean = 1.98), likely due to greater experience in navigating such barriers. Technological literacy issues follow a similar pattern, where younger students face greater difficulty adapting to digital tools, though this gradually improves as they advance in their academic journey. Additionally, adjusting to blended learning environments is a significant challenge, especially for 2nd-year students (mean = 2.61), but decreases for 3rd-year (mean = 2.42) and 4th-year students (mean = 2.03).

These findings have several implications. Over time, students seem to develop coping mechanisms and gain better access to resources, but disparities, particularly among younger students, persist. The digital divide continues to pose barriers to educational equity, and institutions must prioritize closing these gaps by offering stronger technological support. Moreover, the consistent struggle to navigate multiple online platforms and access quality materials highlights the need for targeted pedagogical training in digital literacy. Educational institutions should also ensure equitable resource distribution so that all students have reliable access to necessary technologies. Supporting studies corroborate these findings. For instance, research by Pokhrel and Chhetri (2021) on the impact of COVID-19 on online education found that students from lower socioeconomic backgrounds struggled with

technological access, echoing the current study's findings of technological challenges, especially among lower-year students. Selwyn's (2020) study on digital literacy also supports the conclusion that students' ability to effectively use digital tools varies significantly, with younger students facing greater difficulties. Furthermore, Hrastinski's (2019) work on blended learning challenges aligns with this study's observation that students, particularly in lower years, struggle with resource gaps and technological fluency.

Table 10
Extent of Challenges Encountered During Blended Learning in terms of Access to Learning Resources

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
Due to limitations in access to critical technology, such as devices or a consistent internet connection, some students may struggle to access online content, resulting in an unequal learning experience.	2.58	0.92	S	2.46	1.05	MS	1.95	1.07	MS
Some students may have trouble obtaining specific learning materials due to availability restrictions, such as limited access to digital libraries, e-books, or licensed content required for the course.	2.58	0.89	S	2.41	1.01	MS	1.98	1.09	MS
A wide selection of online learning instruments may present difficulties for students in organizing and navigating the materials.	2.58	0.88	S	2.43	0.99	MS	1.94	1.04	MS
Difficulties in locating certain materials or knowing how to successfully access and use those resources could hinder the learning process.									
Students might find it difficult when assessing the quality and reliability of internet information. Sorting through a sea of online materials to discover what is authentic and dependable for academic purposes can be difficult.	2.53	0.89	S	2.40	0.99	MS	2.06	1.09	MS
Due to the sudden changes, they resorted to adjustments, but conflicts such as not having enough resources necessary for blended learning requirements still emerge.	2.61	0.92	S	2.42	1.03	MS	2.03	1.11	MS
Uneven access to reliable internet connections and technology devices among students can create disparities in their ability to access online learning resources.	2.60	0.89	S	2.41	1.00	MS	2.00	1.10	MS
Students may find it challenging to navigate and manage multiple platforms, leading to confusion and potential difficulty accessing essential learning resources.	2.68	0.86	S	2.45	1.01	MS	2.02	1.12	MS
This challenge can hinder students' ability to access the necessary resources, impacting the effectiveness of their learning experience.	2.64	0.87	S	2.44	1.01	MS	2.03	1.14	MS
Students with varying levels of technological literacy may encounter challenges in effectively using digital tools.	2.58	0.83	S	2.47	1.04	MS	2.02	1.14	MS
Technological obstacles can make learning resources inaccessible to students who are unfamiliar with or do not have frequent access to a particular technology.	2.58	0.86	S	2.42	1.03	MS	2.03	1.10	MS
Overall Mean	2.60	0.80	S	2.43	0.95	MS	2.01	1.05	MS

Satisfaction. The data shows that maintaining consistency between online and in-person learning is perceived as a significant challenge by 2nd-year students (mean = 2.57, SD = 0.92), but this challenge becomes less pronounced by the 4th year (mean = 2.05, SD = 1.12). This suggests that while students may initially struggle with inconsistencies in content delivery, they likely develop coping strategies or become more familiar with the blended format as they progress. The implication here is that educational institutions should prioritize consistent quality

across both modalities, especially for younger students who are still adjusting to this learning style.

Technical disruptions, such as platform malfunctions and poor internet connectivity, continue to be a major source of dissatisfaction, especially for 2nd and 3rd-year students (means = 2.60 and 2.47, respectively). These disruptions can impede learning and increase frustration, suggesting that schools should invest in better technical infrastructure and offer consistent tech support to reduce these barriers, particularly for younger students who are less equipped to deal with these challenges. Across all years, students report challenges with engagement and participation in both online and face-to-face sessions. The means of 2.55 for 2nd-year students and 2.02 for 4th-year students highlight a decline in perceived difficulty over time, but engagement remains a key issue. This indicates the need for strategies to enhance interaction, such as using more engaging tools, interactive content, and fostering better teacher-student dynamics, particularly for lower-year students.

Blended learning challenges, including lack of skills, limited social interaction, and poor internet connection, have affected the satisfaction levels of students and educators, particularly for 2nd-year students (mean = 2.58). Although the severity decreases by the 4th year, institutions should address these issues early on by offering more resources, skills training, and support systems to smooth the transition to blended learning environments. Students across all year levels express dissatisfaction when expectations regarding blended learning are not met. Although this issue is less severe among 4th-year students, with means dropping from 2.48 to 2.05, unmet expectations regarding course structure and engagement can still lead to dissatisfaction. Schools should emphasize clear communication about course delivery methods and set realistic expectations to mitigate this issue.

Research supports these findings. For instance, a study by Pokhrel and Chhetri (2021) highlights that students encounter significant issues with online learning due to technical problems, a finding consistent with the technical challenges identified in this study. Another study by Hrastinski (2019) also aligns with these results, as it emphasizes the difficulties students face in adjusting to blended learning, including technical issues and a lack of interaction, which are prevalent challenges across all academic levels in this dataset. In contrast, a study by Selwyn (2020) suggests that while technical issues are common, students in more developed educational environments may experience fewer issues over time due to better infrastructure and support systems, which may explain the decreasing means among senior students in the present study. This suggests that institutions that invest more in technology and training can reduce these challenges more effectively. These findings indicate that while students may adapt to online and blended learning environments over time, significant challenges remain, particularly for younger students. To enhance student satisfaction and engagement, institutions must focus on providing consistent learning experiences, improving technical infrastructure, and fostering better interaction in both online and face-to-face formats.

Table 11
Extent of the Challenges Encountered During Blended Learning in terms of Satisfaction

Indicators	2nd Year (n = 116)			3rd Year (n = 118)			4th Year (n = 66)		
	M	SD	VI	M	SD	VI	M	SD	VI
Maintaining consistency in online and in-person learning can be challenging, as students may perceive discrepancies in content quality across various media, potentially impacting their mental state.	2.57	0.92	S	2.49	1.00	MS	2.05	1.12	MS
Encouraging effective interaction and participation among students and teachers in online and face-to-face sessions can be challenging, potentially impacting satisfaction levels.	2.55	0.86	S	2.42	1.00	MS	2.02	1.10	MS
Technical issues, like platform malfunctions, internet connectivity issues, or device malfunctions, can disrupt the learning process and cause discontent among students and teachers.	2.60	0.88	S	2.47	1.02	MS	2.00	1.10	MS

Tailoring the educational process to individual needs and preferences can be challenging, as it may require adjusting resources and instructional methods to accommodate different learning styles.	2.56	0.92	S	2.50	1.04	S	2.00	1.10	MS
Blended learning faces challenges such as lack of skills, poor internet connection, limited social interaction, and lack of gadgets are the reasons that affect the satisfaction of students and educators.	2.58	0.91	S	2.47	1.06	MS	2.02	1.09	MS
Some students may feel a lack of interaction or engagement in one or both modalities, impacting their overall satisfaction with the course.	2.60	0.88	S	2.49	1.04	MS	1.98	1.12	MS
Students are uninterested in participating in online discussions, which reduces the effectiveness and fulfillment of blended learning.	2.59	0.83	S	2.42	1.05	MS	2.08	1.13	MS
Students may have varied expectations regarding the blended learning experience. If these expectations are not effectively communicated or aligned with the actual course structure, it can result in dissatisfaction among students.	2.48	0.92	MS	2.49	1.00	MS	2.05	1.12	MS
Achieving a balance between online and in-person engagement can be challenging. Some students may feel a lack of interaction or engagement in one or both modalities, impacting their overall satisfaction with the course.	2.55	0.88	S	2.52	1.03	S	2.05	1.12	MS
Inconsistencies in course delivery may impact the overall satisfaction of students who value a cohesive learning experience.	2.55	0.90	S	2.48	0.99	MS	2.02	1.10	MS
Overall Mean	2.56	0.81	S	2.48	0.98	MS	2.02	1.06	MS

Summary of the Challenges Encountered. The analysis and interpretation of the data reveal a trend of decreasing satisfaction and engagement as students' progress through their academic years. Across the three indicators—Personal Growth, Instructor Competency and Effectiveness, Technology Proficiency, and Access to Learning Resources—the mean scores decline from the second year to the fourth year. The second- year students generally perceive their experiences positively, with scores indicating "Satisfactory" (S) for most categories, while third-year and fourth-year students report a shift towards "Moderately Satisfactory" (MS). For instance, personal growth, which is essential for student development, shows a noticeable decline from 2.44 in the second year to 1.86 in the fourth year. Similarly, satisfaction in access to learning resources, vital for educational success, drops from 2.60 to 2.01 by the fourth year.

This declining trend has significant implications. The findings suggest that as students advance through their program, they may encounter challenges that negatively impact their perception of the learning environment. The decrease in ratings for instructor competency, technology proficiency, and access to learning resources may indicate that students become more critical or that institutional support becomes less effective as they approach the completion of their studies. This can lead to decreased motivation and overall dissatisfaction, potentially affecting academic performance and retention rates.

In linking these results to related studies, this trend of declining satisfaction over time is consistent with research by Tinto (1993) on student retention and the student experience. Tinto's model highlights the importance of continuous support and engagement throughout a student's academic journey, emphasizing that academic and social integration is crucial for student success. Moreover, studies such as those by Astin (1999) emphasize the role of institutional support systems and faculty involvement in sustaining student satisfaction and achievement.

Table 12
Summary of the Extent of the Challenges Encountered During Blended Learning

Indicators	2nd Year (n=116)		3rd Year (n=118)		4th Year (n = 66)	
	M	VI	M	VI	M	VI
Personal Growth	2.44	MS	2.27	MS	1.86	MS
Instructor Competency and Effectiveness	2.57	S	2.33	MS	1.99	MS
Technology Proficiency	2.59	S	2.46	MS	2.00	MS
Access to Learning Resources	2.60	S	2.43	MS	2.01	MS
Satisfaction	2.56	S	2.48	MS	2.02	MS
Overall Mean	2.55	S	2.39	MS	1.98	MS

Level of Effectiveness of Blended Learning and the Extent of Challenges Encountered. The analysis of the significant relationship between the level of effectiveness of blended learning and the extent of challenges encountered reveals strong negative correlations across all variables. The negative values of the correlation coefficients (ranging from -0.486 to -0.922) indicate that as the challenges encountered by students increase, the perceived effectiveness of blended learning decreases significantly. For instance, satisfaction has the strongest negative correlation with challenges (r = -0.922), showing that students who face more difficulties in the blended learning environment are far less satisfied. Similarly, the strong negative correlations between challenges and personal growth (r = -0.486), instructor competency (r = -0.553), technology proficiency (r = -0.598), and access to learning resources (r = -0.556) imply that these critical components of blended learning are severely impacted when students face challenges.

Table 13
Significant relationship between level of effectiveness of blended learning and the extent of challenges encountered

Variables	r	p-value	Decision	Analysis
Personal Growth vs. Challenges	-.486**	0.000	Reject Ho	Significant
Instructor Competency and Effectiveness vs. Challenges	-.553**	0.000	Reject Ho	Significant
Technology Proficiency vs. Challenges	-.598**	0.000	Reject Ho	Significant
Access to Learning Resources vs. Challenges	-.556**	0.000	Reject Ho	Significant
Satisfaction vs. Challenges	-.922**	0.000	Reject Ho	Significant
Level of Effectiveness vs. Extent of Challenges	-.570**	0.000	Reject Ho	Significant

Note: **. Correlation is significant at the 0.01 level (2-tailed).

These findings have important implications for the design and implementation of blended learning programs. The significant inverse relationship suggests that blended learning is effective only when challenges, such as technological barriers, lack of access to resources, or inadequate instructor support, are minimized. As challenges intensify, students' growth, satisfaction, and engagement with blended learning decrease, potentially undermining academic performance and success. This aligns with the study by Garrison and Kanuka (2004), which highlighted that while blended learning offers flexibility, its effectiveness is contingent upon reducing the challenges that students face, particularly in terms of access to reliable technology and instructor interaction. Moreover, the results are consistent with Vygotsky's (1978) Social Constructivist Theory, which emphasizes the importance of interaction and support for effective learning. When students face challenges that disrupt access to these support mechanisms, the effectiveness of learning declines significantly.

In conclusion, the significant negative relationships suggest that addressing and mitigating challenges in blended learning environments is crucial to enhancing students' personal growth, technology proficiency, and overall satisfaction. Institutions must focus on minimizing these obstacles to ensure that blended learning can achieve its full potential in fostering educational success.

Differences in the Effectiveness of Blended Learning

The analysis of differences in the effectiveness of blended learning according to year level, as reflected by the ANOVA results, shows significant variations across all indicators: personal growth, instructor competency and

effectiveness, technology proficiency, access to learning resources, and overall satisfaction. Each of these indicators yields a p-value of less than 0.05, indicating that there are statistically significant differences between the year levels in terms of how they perceive the effectiveness of blended learning.

For personal growth, the F-value of 12.246 (p = 0.000) suggests that students across different year levels experience varied levels of growth within the blended learning environment. This may be due to differences in academic maturity, adaptability to technology, or exposure to the blended learning format. Instructor competency and effectiveness also shows significant variation (F = 7.637, p = 0.001), potentially indicating that upper-year students might have higher expectations from instructors compared to lower-year students, leading to differing perceptions of instructor effectiveness. Similarly, for technology proficiency (F= 8.349, p = 0.000) and access to learning resources (F = 9.249, p = 0.000), upper-year students may face greater technological challenges or feel more critical about the resources available, given their more advanced academic requirements. Finally, satisfaction (F = 8.016, p = 0.000) also shows significant differences, with varying levels of satisfaction across the year levels, suggesting that student expectations and experiences with blended learning shift as they progress through their academic journey.

These findings have important implications for the implementation of blended learning across different academic years. Since upper-year students seem to perceive lower effectiveness in many aspects, educational institutions may need to adjust the delivery of blended learning to address the specific needs of students at different stages. For example, upper-year students may require more advanced resources, greater technological support, and more sophisticated instructor engagement to match their higher academic demands. In linking this to related studies, the results are consistent with the work of Arbaugh and Duray (2002), who noted that student satisfaction and effectiveness in online and blended learning environments are influenced by students' year level and their prior exposure to such learning modes. The results also resonate with Keller's (1987) ARCS Model of Motivation, which suggests that as students advance through their academic years, their motivation and engagement are driven by different factors, including the relevance and support of the learning environment.

In conclusion, these findings underscore the importance of tailoring blended learning strategies to meet the evolving needs of students as they progress through their academic years. Institutions should consider differentiated approaches, offering more advanced and personalized support for upper-year students to enhance their learning experience and satisfaction.

Table 14
Differences in the Effectiveness of Blended Learning According to Year Level

		Sum of Squares	df	Mean Square	F	p-value
Personal Growth	Between Groups	5.892	2	2.946	12.246	0.000
	Within Groups	71.451	297	0.241		
	Total	77.343	299			
Instructor Competency and Effectiveness	Between Groups	4.191	2	2.095	7.637	0.001
	Within Groups	81.486	297	0.274		
	Total	85.676	299			
Technology Proficiency	Between Groups	4.106	2	2.053	8.349	0.000
	Within Groups	73.026	297	0.246		
	Total	77.131	299			
Access to learning Resources	Between Groups	4.75	2	2.375	9.249	0.000
	Within Groups	76.26	297	0.257		
	Total	81.01	299			
Satisfaction	Between Groups	4.597	2	2.298	8.016	0.000
	Within Groups	85.163	297	0.287		
	Total	89.76	299			

4. Conclusions

The conclusions drawn from the analysis of students' perceptions of blended learning reveal that overall satisfaction and adaptability improve as students advance through their academic levels. Fourth-year students

demonstrate a higher level of comfort and success in navigating blended learning, rating their experience as "Very Effective" compared to the "Effective" ratings of second- and third-year students. This progression reflects increased adaptability, technological proficiency, and an appreciation for well-integrated learning tools and instructional methods. Key factors such as instructor competency, access to digital resources, and personalized learning experiences are highly valued by students in their later academic years, further enhancing their overall satisfaction. However, challenges remain, particularly for younger students. Second-year students face more significant difficulties related to technological access, platform navigation, and time management, indicating the need for targeted interventions to bridge the gap for lower academic levels. Institutions must prioritize scaffolding support for younger students through digital literacy workshops, peer mentoring programs, and early-stage guidance in time management and platform usage. By progressively integrating digital tools and resources, students can build their technological confidence and proficiency over time.

These findings also highlight the importance of instructor training and development, ensuring faculty are equipped to deliver effective and engaging blended learning experiences. Personalizing learning experiences and leveraging adaptive technologies can further enhance student satisfaction and outcomes across all academic levels. Equitable access to digital resources and consistent feedback mechanisms are essential to fostering an inclusive and effective blended learning environment. Overall, while blended learning is a highly effective approach across academic levels, addressing the unique challenges faced by younger students through structured interventions and ongoing faculty development will significantly improve learning outcomes and overall satisfaction.

4.1 Recommendations

Based on the conclusions, several recommendations can be made to improve students' blended learning experiences. First, younger students, particularly those in their second and third years, face more challenges with technological access, platform navigation, and time management. To address these issues, universities should offer targeted support in the form of workshops on online platform usage, time management, and access to technology resources. Additionally, increasing access to technological tools is crucial. Institutions can expand campus Wi-Fi, provide lending devices, and offer discounts on software and hardware to ensure all students, particularly those with limited resources, can participate fully in blended learning. Moreover, since fourth-year students express higher satisfaction with their instructors' blended learning methods, implementing professional development programs for educators is essential. These programs should focus on enhancing the use of online teaching tools and multimedia resources while maintaining a balance between virtual and in-person instruction.

Furthermore, developing personalized learning and feedback mechanisms is vital, especially as students place greater importance on teacher-student interaction as they progress academically. Institutions should ensure timely feedback and tailored learning experiences to meet individual needs. Peer mentorship programs, where fourth-year students assist younger students in adapting to blended learning, can also ease the transition for those struggling with the format. Finally, universities should regularly monitor and assess the integration of technology in blended learning environments. Evaluating students' needs and the effectiveness of the tools being used will ensure the system remains efficient and accessible. By implementing these recommendations, educational institutions can enhance students' adaptability and satisfaction with blended learning across all academic levels.

5. References

Arbaugh, J. B., & Duray, R. (2002). Technological and structural characteristics, student learning and satisfaction with web-based courses: An exploratory study of two online MBA programs. *Management Learning, 33*(3), 331–347. https://doi.org/10.1177/1350507602333003

Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 40*(5), 518–529.

Attard, K., & Holmes, M. (2020). The role of technology in modern criminology education. *Journal of Educational Technology, 12*(3), 45–56.

Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. *Journal of Computing in Higher Education, 26*(2), 87–122. https://doi.org/10.1007/s12528-013-9077-3

Broadbent, J., & Poon, W. L. (2015). Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. *The Internet and Higher Education, 27,* 1–13. https://doi.org/10.1016/j.iheduc.2015.04.007

Chen, X. (2020). Challenges in online distance learning during COVID-19: A case study. *Educational Research and Reviews, 15*(7), 345–355. https://doi.org/10.5897/ERR2020.4061

Cleveland-Innes, M., & Wilton, D. (2018). *Guide to blended learning.* Commonwealth of Learning. https://oasis.col.org/handle/11599/3095

Dziuban, C., Moskal, P., & Hartman, J. (2006). Higher education, blended learning, and the generations: Knowledge is power–no more. *Educause Review, 41*(2), 80–97.

Gaol, F. L., & Hutagalong, F. (2020). Blended learning in foreign education systems: A comparative study with Asia. *Journal of International Education Studies, 13*(2), 109–121.

Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education, 7*(2), 95–105. https://doi.org/10.1016/j.iheduc.2004.02.001

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. Jossey-Bass.

Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of distance education* (3rd ed., pp. 333–350). Routledge.

Hrastinski, S. (2019). What do we mean by blended learning? TechTrends, 63, 564–569. https://doi.org/10.1007/s11528-019-00375-5

Keller, J. M. (1987). Development and use of the ARCS model of motivational design. *Journal of Instructional Development, 10*(3), 2–10. https://doi.org/10.1007/BF02905780

Kember, D., & Gow, L. (2009). Cultural specificity of approaches to study. *British Journal of Educational Psychology, 59*(3), 376–388. https://doi.org/10.1111/j.2044-8279.1989.tb03098.x

Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: The relationship between student characteristics, design features, and outcomes. *International Journal of Educational Technology in Higher Education, 14*(1), 7. https://doi.org/10.1186/s41239-017-0043-4

Kuo, Y.-C., Walker, A. E., Schroder, K. E. E., & Belland, B. R. (2014). Interaction, internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *The Internet and Higher Education, 20,* 35–50. https://doi.org/10.1016/j.iheduc.2013.10.001

Lemos, M., & Pedro, A. (2012). E-learning and student experience: Addressing the knowledge gap. *International Journal of E-Learning Studies, 8*(4), 221–237.

Lim, D. H., & Morris, M. L. (2009). Learner and instructional factors influencing learning outcomes within a blended learning environment. *Educational Technology & Society, 12*(4), 282–293.

Mukay, M., Cato, L., Sarmiento, J., & Ylanan, P. (2023). Effects of blended learning on academic performance: A study of BS Criminology students. *Journal of Criminology and Educational Research, 18*(1), 14–29.

Owston, R., York, D. N., & Murtha, S. (2019). Student perceptions and achievement in a university blended learning strategic initiative. *The Internet and Higher Education, 42,* 43–52. https://doi.org/10.1016/j.iheduc.2018.10.003

Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future, 8*(1), 133–141. https://doi.org/10.1177/2347631120983481

Selwyn, N. (2020). Telling tales on technology: Qualitative studies of technology and education. *Oxford Review of Education, 46*(2), 228–242. https://doi.org/10.1080/03054985.2019.1630302

Tichavsky, L. P., Hunt, A. N., Driscoll, A., & Jicha, K. (2015). "It's just nice having a real teacher": Student perceptions of online versus face-to-face instruction. *International Journal for the Scholarship of Teaching and Learning, 9*(2), Article 2. https://doi.org/10.20429/ijsotl.2015.090202

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of

Chicago Press.

Vaughan, N. (2007). Perspectives on blended learning in higher education. *International Journal on E-Learning, 6*(1), 81–94.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wong, J., Baars, M., Davis, D., Van Der Zee, T., Houben, G. J., & Paas, F. (2020). Supporting self-regulated learning in online learning environments and MOOCs: A systematic review. *International Journal of Human-Computer Interaction, 36*(1), 1–19. https://doi.org/10.1080/10447318.2019.1644164

Zhang, J., Wang, L., & Zhang, L. (2020). The influence of digital literacy on students' learning performance in blended learning environments: A case study. *Journal of Educational Technology Development and Exchange, 13*(1), 35–53. https://doi.org/10.18785/jetde.1301.02

Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory into Practice, 41*(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

Influence of teachers' stress and social support to teachers' performance

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Abstract

This study aimed to determine which domain in the teacher's stress and social support significantly influences the performance of elementary public school teachers. The researcher used the quantitative, non-experimental design utilizing a correlational technique with regression analysis. The respondents were the 182 elementary public school teachers of Santo Tomas West District Division of Davao del Norte who were chosen through a stratified random sampling technique. This study revealed that teachers stress in terms of information load, interpersonal load, change load, activity structure, and time structure was low. This study also revealed that social support in terms of non-school sources of support and school sources of support was very high. This study showed that teachers' performance in instructional process, classroom management, interpersonal relationships, and professional responsibilities was very high. Moreover, the result of the study revealed that teachers' stress and social support have a significant relationship to teachers' performance. However, only social support has a significant influence on teachers' performance. Lastly, all the domains of social support, namely non-school and school sources of support, significantly influence teachers' performance.

Keywords: MAED educational management, teachers stress, social support, teachers performance, SDG indicators: #4 Quality Education

Influence of teachers' stress and social support to teachers' performance

1. Introduction

The problem of teachers' performance affects students' academic achievement. It is common knowledge that teachers who are not well-adjusted are unable to oversee their classrooms efficiently. Most teachers are driven, enthusiastic, and enjoy what they do, yet many cannot handle the heavy workload, sleepless nights, and high stress levels that instructors deal with daily. The need for educators to acquire new technology, online instructional tools, tactics, and techniques to instruct students has expanded due to the global pandemic. Although there has been evidence of success with new instructors, teachers are quitting the field worryingly, particularly in the initial four years of their teaching careers (Cruz, 2022). Furthermore, researchers presented findings to establish the link between teachers' stress and social support to teachers' performance. In addition to the theoretical bases, emotional intelligence and self-efficacy are significantly associated with teachers' performance. Teachers with high emotional intelligence and social skills typically exhibit better classroom management. Teachers' performance is also strongly connected with their self-efficacy and job participation. Teachers with conscientiousness characteristics are also mentioned as significant determinants of their achievement (Kanya et al., 2021).

Researching teachers' performance is essential. Nowadays, people consider education as the most valuable asset. It is an apparatus designed to help people think, work, and make decisions. Supervisory strategies can help teachers reach their objectives and enhance their performance. Since teachers are one of the most critical components of the educational process, their supervision and training have a bearing on the overall quality of education. Through enhanced professional development and job performance, monitoring may improve teaching strategies and result in student achievement. Ongoing education makes teachers more productive (Hoque et al., 2020).

This study implied that teachers must continuously enhance the techniques and abilities essential to their work. Being a teacher can be a rewarding and challenging career. Professional development for educators is critical to any school's success. Success in the field requires unique abilities, information, and experiences. To succeed in their jobs, teachers need a wide range of abilities. To effectively communicate curricular content to pupils with varying learning styles, they must possess exceptional communication skills. They also require patience, social support, and the capacity to maintain composure under pressure. Their ability to collaborate allows them to work well with others (Daguman, 2020).

The connection between the influence of teachers' stress and social support may significantly affect teachers' performance. Evidence demonstrates that high-achieving teachers are essential to improving student accomplishment; high-quality instruction is a prerequisite for high-quality learning. The Philippines can foster the development of well-rounded, morally-driven students with 21st-century abilities and advance the nation by hiring top-notch educators. We need talented professionals who are creative problem-solvers, critical thinkers, and culturally knowledgeable. To achieve excellent results, emotional assistance considers the affectability of the teacher, the environment in the educational setting, and classroom management (Taguba, 2022).

Various literature and related studies described the relationship between teachers' stress and social support to teachers' performance as a well-established fact. Study shows that the majority of teachers experience psychological issues to some extent. They frequently feel the impacts of a high workload and psychological strain, which has a negative effect on their ability to teach. Social support in the workplace is a vital indicator to determine the mental status of teachers. Worker sentiments toward their employment refer to workplace well-being; good feelings outweigh negative ones. It is critical to pay attention to teachers' work performance and psychological wellness as shown by their level of workplace well-being. The well-being of teachers at work

directly affects their ability to perform better and live better lives. It also influences their professional development, success, drive, and interests (Sun et al., 2022).

Teachers who feel their work is too demanding may disengage from their professions. Teachers who were not successful were more likely to consider quitting. Perceived distress amplified the impact of low thriving on the intention to leave. They demonstrated that teachers' stress levels and mental health influence individuals' plans to quit. Teachers who are under stress tend to perform poorly and are more likely to become disengaged from their jobs. Their reported distress and mental health influenced teachers' intentions to depart. Interventions must be planned and implemented to support teachers' mental health and manage stress (Marais-Opperman et al., 2021). The phenomenon of exhaustion is associated with the workplace and impacts various aspects of teacher performance, including work efficiency, relationships with others, and happiness in general. Mainly, psychological, physiological, and spiritual weariness may result from instructors' expectations not matching the reality of their work environment. The principal's leadership style or connection to the teachers is related to the teachers' level of exhaustion. Teachers may encounter potentially stressful situations because they must work in tandem with teachers, administrators, counselors, and other educators and meet their students virtually every day. Teachers face various pressures, including heavy lesson preparation burdens, role uncertainty, and classroom control challenges (Panisoara et al., 2020).

The implications of previous works are relevant to the study since they are the basis for formulating the problem presented by the researcher. The related studies aided the researcher in developing the questionnaires used to create the association between the influence of teachers' stress and social support on teachers' performance. Furthermore, in support of the theory mentioned above, the relationship between measures takes into account that there is a more significant relationship than the readings mentioned above, which also accounts for the relationship between the measures used in the study. The researcher considers that other underlying elements provide insights and elucidations about the work.

This study is anchored on the theory of Emotional intelligence by Daniel Goleman. Understanding feelings and awareness of themselves are needed to realize a feeling as it arises inside oneself. Self-regulation, or the capacity to effectively control feelings, is necessary for emotion management. People with this ability recover from life's setbacks and pressures far faster. Strong social networks and interpersonal ties help people function effectively. (Goleman, 1998). Balboa (2020) supports the first independent variable with the following indicators: information load, interpersonal load, change load, activity structure, and time structure. The second independent variable is supported by Korte and Simonsen (2018), with the following indicators: non-school sources of support and school sources of support. The dependent variable is supported by Nelson (2013) with the following indicators: instructional process, classroom management, interpersonal relationships, and professional responsibilities. This study uses the Emotional Intelligence theory to determine the influence of teachers' stress and social support on teachers' performance.

The first independent variable of the conceptual framework, as shown in Figure 1 at the back of the study, is teachers' stress, supported by Balboa (2020) with the following indicators: *information load, interpersonal load, change load, activity structure, and time structure. Information load* refers to teachers' capacity to tolerate information overload in occupational settings. *Interpersonal load* refers to teachers' experience of stress related to interpersonal relationships at work. *Change load* refers to teachers' tolerance and understanding of work-related change. *Activity structure* relates to teachers' tolerance and experience in completing work activities and meeting expectations. *Time structure* refers to teachers' stress related to timelines and deadlines at work.

The second independent variable is social support, as supported by Korte and Simonsen (2018), with the following indicators: *non-school sources of support* and *school sources of support. Non-school sources of support* refer to support from family, community, partner or spouse, and friends outside work. *School sources of support* refer to support from administrators, co-teachers, students, parents, and the community where teachers work.

The dependent variable is teachers' performance, supported by Nelson (2013) with the following indicators: *instructional process, classroom management, interpersonal relationships,* and *professional responsibilities*. The *instructional process* refers to the preparation and strategies that accommodate students' learning needs that promote learners' success. *Classroom management* refers to the classroom environment that supports responsible student behavior constructively. *Interpersonal relationship* refers to interaction with parents, community, and staff. *Professional responsibilities* refer to schools' policies and procedures that participate in professional growth and development for teachers.

The researcher has not come across a study that is the same as the one undertaken in the researcher's target locality, which focuses on the influence of teachers' stress and social support on teachers' performance. There are studies on teachers' performance but not on target locality. Governments and the international community must uphold values and implement reforms for all parties involved in education to realize the promised future for children, youth, and other stakeholders in the field (Agron, 2021). Thus, there is an urgency to conduct the study.

Independent Variables   **Dependent Variable**

Teachers Stress Information Load Interpersonal Load Change Load Activity Structure Time Structure	**Teachers Performance** Instructional Process Classroom Management Interpersonal Relationship Professional Responsibilities

| **Social Support**
Non-school Sources of Support
School Sources of Support | |
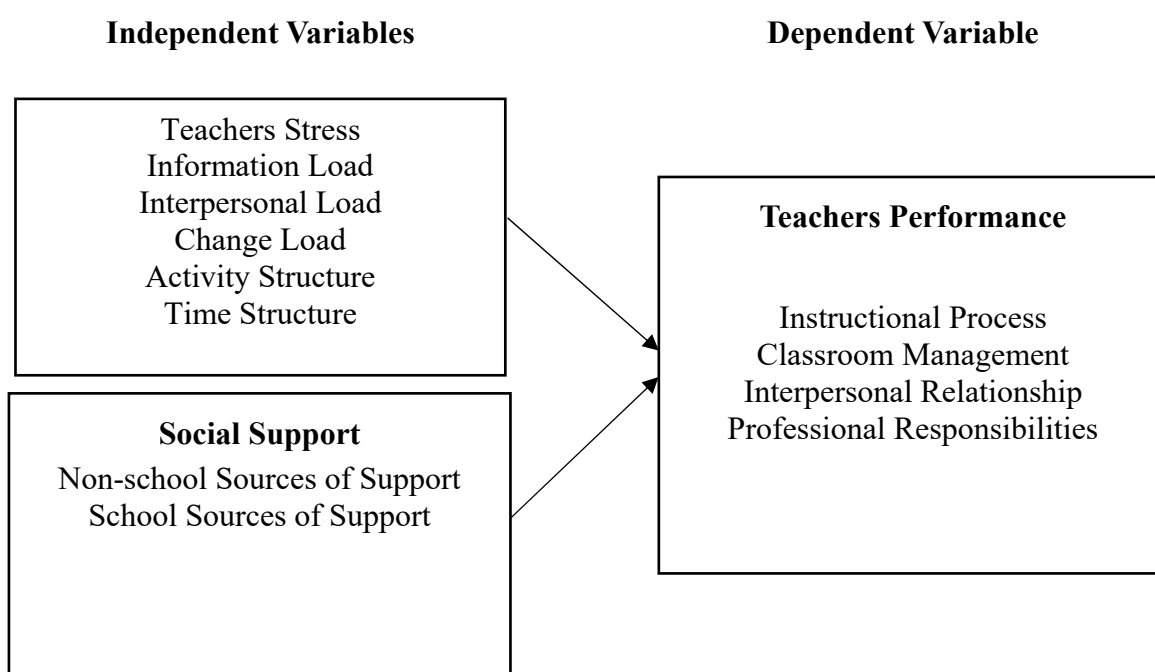
Figure 1. Conceptual Framework of the Study

Research Objective - The study's primary objective is to seek the influence of teachers' stress and social support to teachers' performance. Specifically, it sought to attain the following.

➢ To describe the level of teachers' stress in terms of information load, interpersonal load, change load, activity structure, and time structure.

➢ To describe the level of social support in terms of non-school sources of support and school sources of support.

➢ To describe the level of teachers' performance in terms of instructional process, classroom management, interpersonal relationships, and professional responsibilities.

➢ To determine if there is a relationship between teachers stress and social support to teachers performance.

➢ To find out if there are domains in teachers stress and social support that significantly influence teachers performance.

Hypothesis - The following hypotheses were verified at a 0.05 significant level:

➢ There is no significant relationship between teachers stress to teachers performance and social support to teachers' performance.

➢ There is no domain in teachers stress and social support that significantly influence teachers performance.

The significance of the study highlights fascinating themes and problems that will aid future researchers in conducting additional research on the influence of teachers' stress and social support on teachers' performance, which will inevitably be there to their advantage. Similar studies could be conducted by other researchers in other settings, enabling them to relate to this. Additionally, the local government will benefit from this. They might have to help schools more actively, particularly with activities associated with school. They must provide schools with more funding, equipment, and technical help. Private neighborhood educational institutions should be considered when offering assistance. Azzahra (2020). Furthermore, this will help the Department of Education since teacher excellence and success determine the caliber of a program in an academic department.

2. Method

Research Respondents - The respondents were the elementary public school teachers of Santo Tomas West District Division of Davao del Norte for the school year 2023-2024. Santo Tomas is a first-class municipality, officially referred to as Sto. Tomas. The study was specific to the settings of elementary public school teachers at Santo Tomas West District in the Division of Davao del Norte. Furthermore, the computed sample size used at least a 0.05 significance level, and the total population was 331 according to Slovin's formula. Slovin's formula was utilized to calculate the sample size. As for precision, Kothari (2004) says that, with a 95% confidence level, the sample results reflect the actual status of the population inside a particular precision spectrum. The researcher employed the stratified random sampling technique to select the respondents. In this type of sampling, a particular set of things is chosen randomly and then categorized from the population. The selected sample is combined from multiple strata to form a single sample. Using a probability sampling technique called stratified random sampling, samples are selected from the total population according to the characteristics of a specific factor (Iliyasu & Etikan, 2021). In this study, the researcher described the inclusion criteria of the population (elementary teachers) and location in (Santo Tomas West District, Division of Davao del Norte). Contrary to that, the exclusion criteria were teachers outside Santo Tomas West District, Division of Davao del Norte. Respondents who felt threatened by how the study was conducted were allowed to leave at any time. Participants were free to leave the study at any stage if they wanted to. Respondents participated based on informed consent.

Materials and Instrument - This study used three (3) sets of adapted and modified questionnaires to assess the teachers stress, social support, and teachers performance of elementary public school teachers. Teachers stress has five (5) indicators, namely: information load, interpersonal load, change load, activity structure, and time structure. Social support has two (2) indicators namely: non-school sources of support and school sources of support. Teachers performance has four (4) indicators, namely: instructional process, classroom management, interpersonal relationship, and professional responsibilities. After undergoing internal and external validation, the researcher submitted the survey results to the panel of experts. The external validators gave the questionnaire a 5.0, or very good, content validation rating. Following editing, the researcher conducted the pilot testing, and the results were given to the statistician so that Cronbach's Alpha could be used to assess the validity and reliability of the items.

Design and Procedure - This study used a quantitative non-experimental research design using a casual effect approach utilizing multiple regression analysis. It is systematic and empirical and utilizes various typologies, methodological approaches, and techniques. This was concerning the relationship between the variables of the study. Hence, Kalla (2011), a correlational investigation, ascertains the link between two or more variables; that is, it ascertains if an upsurge or decrease in one variable can affect the reduction or increase of

another. Furthermore, according to Siegle (2015), correlational research merely examines the correlations between variables rather than attempting to impact any one of them. He went on to say that correlations can vary in the degree or intensity of the link and have either a favorable or adverse orientation. To get the data, the researcher requested authorization. Recruitment was free from compulsion, improper influence, or enticement. After retrieving the questionnaires, the researcher screened the data to reduce the likelihood of outliers during analysis. Subsequently, the information was transcribed, recorded, and examined. In addition, because the respondents were preoccupied, the researcher had to wait several days to obtain the survey questionnaire. The researcher gathered the data after school to guarantee that there would be no disruptions to the lessons and that the respondents with internet access completed the survey online.

Voluntary Participation. Teachers of the chosen educational institution can withdraw at any moment if they feel intimidated by how the study is conducted. At any point during the study, participants can cancel if they want. Based on informed consent, the respondents took part in the survey.

Privacy and Confidentiality. The participants were aware that their responses were kept confidential and their names would not appear in any part of this study. The data was collected from the subject using Microsoft Excel. The researcher personally retrieved the questionnaires and disposed of them in a manner that left no trace of the possibility of reconstructing information. Also, the researcher adhered to the Data Privacy Law.

Informed Consent Process. The researcher requested the participants to sign the informed consent specified in the instrument for their voluntary participation in the study. Only those who signed the informed consent form were considered part of the study.

3. Results and discussion

This presents the analysis, interpretation, and results of the data collected from the research tools. This study intends to determine which areas significantly affect the teacher's stress and social support for teachers' performance. The standard deviation was less than the standard deviation for a 5-point Likert scale, ranging from 0.53 to 0.97. This study implies that there is less variety in the responses provided by the participants, as the evaluations from this study are very close to the mean (Wittink & Bayer, 1994).

3.1 Level of Teacher Stress

Presented in Table 1 are the mean scores for teachers' stress. The data show an overall mean of 4.139 with a standard deviation of 0.377 and has a descriptive equivalent of low. The result implies that the level of teachers' stress is low. Among the five (5) indicators of teachers' stress, information load obtained the highest mean score of 4.407 and has a standard deviation of 0.452, followed by interpersonal load with a mean score of 4.343 and a standard deviation of 0.462, activity structure with a mean score of 4.176 and a standard deviation of 0.523, and change load with a mean score of 3.893 and a standard deviation of 0.544. However, time structure got the lowest mean score of 3.876 with a standard deviation of 0.572.

Table 1
Level of Teachers Stress

Indicators	Mean	SD	Descriptive Equivalent
Information Load	4.407	0.452	Very Low
Interpersonal Load	4.343	0.462	Very Low
Change Load	3.893	0.544	Low
Activity Structure	4.176	0.523	Low
Time Structure	3.876	0.572	Low
Overall	4.139	0.377	Low

Based on the result, the information load got the highest mean score of 4.407, with a standard deviation of 0.452, expressed as very low. This result reveals that teachers require a peaceful mind for practical work, taking projects one step at a time, arranging their workspaces for privacy, and staying up-to-date with the constantly

changing information. This finding is the same as the conclusion of Solania et al. (2023), that teachers are able to function satisfactorily in their roles even in the face of additional tasks assigned in the classroom. It means that teachers are dedicated and passionate about what they do. Even when their working conditions might not appear ideal, they feel compelled to carry out their responsibilities and teach. There is no correlation between the participants' overall negative outlook towards overburden and their performance on their duties.

This finding is the same as the result of Rossiandy and Indradewa (2023), which states that educators are willing to grow to boost productivity, influencing their job satisfaction to the fullest extent possible because of the improved quality of their work. Teachers' self-assurance in their abilities and expertise might improve their job satisfaction. Since they drive themselves to concentrate more on accomplishment and the caliber of their job, teachers are typically more tolerant of stress.

Second is interpersonal load, which attained an overall mean of 4.343 with a standard deviation of 0.462, expressed as very low, which means that teachers are organized, can handle multiple people at once, prefer smaller groups, and prefer the peace of the country living over large, chaotic groups. This finding is similar to the study by Abejo et al. (2023) that people who possess excellent interpersonal skills typically perform well in leadership roles because they can inspire and engage others around them. Successful interactions and collaboration in personal and professional environments require interpersonal skills. People with strong interpersonal skills know the complexities of interacting with loved ones, coworkers, and friends, and they are more likely to foster pleasant connections and collaborate peacefully with people.

Similarly, this result parallels the study of Flushman et al. (2021), which claims that an educator's community may boost their job happiness. Approaches that 'open' practice in methods that promote sharing, reflection, and taking the required risks to change are effective in collaborative endeavors. Teachers value collaboration over solitary and enjoy being involved in their surroundings. Focusing on making choices and using problem-solving techniques produced a genuine forum for dialogue and the possibility of bringing community-based learning into the educational setting.

Activity structure got an overall mean of 4.176, with a standard deviation of 0.523, expressed as low. This result implies that teachers prioritized planning, organization, and efficiency, demonstrating the ability to handle multiple activities simultaneously, maintain focus, and manage multiple projects simultaneously to ensure success. This finding is in line with the study of Delos Reyes (2023) that educators uphold the highest values of both their professional and personal conduct, organize their tasks in advance, schedule to avoid problems, and prioritize tasks. This finding is supported by Pacia and Guevarra (2023). Educators are sincerely dedicated to fulfilling their professional roles and obligations and approach their work well. The work of teachers is highly valued as "very satisfactory" in several sectors, such as curriculum preparation, learning environments, assessment and reporting, instruction and subject matter understanding, and individual development.

Fourth, change load got an overall mean of 3.893, with a standard deviation of 0.544, expressed as low. This reveals that educators controlled their schedule efficiently, could think clearly with others, cope with the fast-paced environment, and maintain productivity. This finding was the same as the conclusion of Baldelovar (2023), which showed that even educators faced various circumstances that could lead to stress and negatively impact their well-being. Instructors continue to receive ratings of excellent or adequate, implying that educators are practical and pragmatic. Educators were trained to practice remaining calm, focused, and upbeat despite the challenges they faced in their work.

This result parallels the study of Liu et al. (2023) that teachers with greater feelings of worth may develop an upbeat mindset toward stress when faced with work-related changes since they have more faith in their abilities to handle the demands of their professions. This significantly affects the work teachers put into their lessons and the persistence with which they pursue their objectives, even in the face of failure. These positive experiences give educators self-assurance, which enables them to enjoy their work even in the face of stress.

Lastly, time structure got an overall mean of 3.876 with a standard deviation of 0.572, which is low. This implies that teachers preferred to complete one task before starting another and can handle deadlines at work. This finding parallels the result of Olivo (2021) that exceptional time management abilities are necessary for teachers. Instructors reported that they had much paperwork and reports to complete daily; this list would assist them in avoiding duplicating tasks and forgetting crucial ones. Educators also stated that they frequently planned ahead of time.

Evidently, in the study of Paguntalan (2023) that teachers are effective time managers, class time is effectively utilized to accomplish learning objectives throughout the whole teaching and learning process, using effective teaching techniques and making optimum use of all available resources, teachers are able to achieve all the required learning outcomes within the given time frame. They demonstrate the best time management practices during their work, completing all necessary learning outcomes in the least amount of time. Teachers with high self-efficacy are more likely to manage their time reasonably and create classroom environments that support the method of teaching and learning, thereby helping them maintain their teaching-learning process.

3.2 Level of Social Support

Presented in Table 2 are the data on the level of social support based on the respondents' responses. It can be gleaned from the table that social support has an overall mean score of 4.3, with a standard deviation of 0.446, and has a descriptive equivalent of very high. Among the two (2) indicators of social support, non-school sources of support obtained the highest mean score of 4.338 and a standard deviation of 0.495, followed by school sources of support with a mean score of 4.262 and a standard deviation of 0.519. Furthermore, these two indicators of social support have a descriptive equivalent of very high, which means that social support in terms of these indicators is always manifested.

Table 2
Level of Social Support

Indicators	Mean	SD	Descriptive Equivalent
Non – School Sources of Support	4.338	0.495	Very High
School Sources of Support	4.262	0.519	Very High
Overall	4.3	0.446	Very High

Based on the result, non-school sources of support got the highest overall mean of 4.338, with a standard deviation of 0.495 expressed as very high. This indicates that educators report supportive relationships with spouses, family, friends, churchmates, and the community, ensuring their well-being and support. This result is interrelated with Jusay and Blancia (2021), who state that friends and family are frequently mentioned as essential elements of solid mental wellness that you may rely on in difficult circumstances. These connections are essential to your everyday functioning, whether you are amid an emotional breakdown and need help right now or just want to spend moments with those who matter to you. People with social support are more resilient in stressful situations and are more likely to survive and succeed.

Also, in the same study by Estigoy and Olua (2023), a community can be viewed as a matrix of interpersonal relationships. Everyone gains when educators and community organizations collaborate to promote learning. Associations have the power to uplift, assist, and even change individual partners, which enhances the quality of programs, maximizes resource utilization, and improves curriculum alignment. Having teachers actively involved in their surrounding areas and promoting their mental health through outreach and extracurricular activities is the most efficient method to support both local and community growth.

Meanwhile, school sources of support got an overall mean of 4.262 with a standard deviation of 0.519, which is described as very high. This suggests that teachers perceive fair treatment from administrators, kind and cooperative co-teachers, helpful outside co-teachers, and understanding community support in their teaching environment. This result parallels the study of Beduya and Gallardo (2022), which suggests that the Department of Education should fund that foster social interaction between staff members, instructors, and students. Teachers,

particularly those in rural regions, should continue receiving professional development from the Department of Education. This study may expose educators' eyes to the value of a peaceful work environment at the Department of Education for obtaining educational advantages and accomplishing personal goals.

This finding is similar to the study of Cadag (2024) that the school head ensures that tools, like technology or instructional materials, are available to assist teachers' efforts to develop and urges teachers to work together or as peer mentors to support one another. Giving teachers the resources they need is a top priority for administrators, who recognize these assets' vital role in increasing academic standards. This proactive approach fosters the perfect environment for practical instruction and learning. Administrators and teachers work together to establish targets for achievement that are specific and attainable. Raising academic standards requires collaboration among teachers, so school administrators prioritize providing them with the necessary resources. Cooperative setting goals and peer mentoring were visible.

3.3 Level of Teacher Performance

Presented in Table 3 are the data on the level of teachers' performance based on the respondents' responses. It can be gleaned from the table that teachers' performance has an overall mean score of 4.668 with a standard deviation of 0.353 and a descriptive equivalent of very high, which is considered to mean that the teachers exhibit desirable performance.

Table 3
Level of Teachers Performance

Indicators	Mean	SD	Descriptive Equivalent
Instructional Process	4.606	0.427	Very High
Classroom Management	4.707	0.386	Very High
Interpersonal Relationship	4.681	0.399	Very High
Professional Responsibilities	4.677	0.4	Very High
Overall	4.668	0.353	Very High

Results of the study reveal that the performance level of elementary public school teachers of Santo Tomas West District Division of Davao del Norte is very high. The respondents gave a very high rating in terms of instructional process, classroom management, interpersonal relationships, and professional responsibilities. This means that the teacher's performance of elementary public school teachers is very much manifested.

Among the domains of teachers' performance, classroom management got the highest overall mean of 4.707, with a standard deviation of 0.386, expressed as very high. This implies that teachers create a conducive learning environment, encourage responsible student behavior, foster positive relationships, provide clear directions, and respect cultural differences in their classroom. This result parallels the study of Bullough (2024) that good classroom management gives pupils a feeling of community. Teachers need to embrace student behavior as a form of communication and take actions that foster a sense of acceptance, belonging, and connection among students in the classroom. Educators foster an environment that is more loving and supportive, so even if a student is not loved, they will still be acknowledged and may even learn how to respond to and assist others who do.

In the same way, harmonious with the study of Yelda (2014), classroom management ensures that the flow of the lecture is kept intact even when students behave disruptively. If teachers fail to provide clear expectations, norms, and procedures, they run the risk of allowing several distractions to interfere with their students' learning. Teachers need to establish clear rules for the classroom. Rules for the classroom teach pupils appropriate behavior, which makes them useful tools for behavior management. Teachers should establish a climate in which positive interactions are the norm and negative interactions are uncommon. Teachers need to provide thoughtful criticism as soon as pupils behave appropriately. Behavior improves when it receives positive reinforcement.

Second, interpersonal relationships got an overall mean score of 4.681 with a standard deviation of 0.399, which is very high. This indicates that teachers demonstrated positive relationships with parents, the community,

staff, and parents, promoting classroom involvement, collaboration, and support among other teachers. It is in line with the study of Dela Cruz (2023) that interpersonal relationships between teachers are highly effective. They keep friends and family aware of what's going on in their immediate surroundings and foster a positive atmosphere among them. They maintain close ties with their friends, family, and the local community. Educators and the social component are focusing on preserving a healthy atmosphere and fortifying bonds with friends and family. Teachers are also aware of the value of social networks with friends and family and environmental support systems for overcoming difficulties.

Furthermore, this outcome is consistent with the study of Trongco and Benolirao (2023), which indicates that a collaborative, positive school climate is crucial for tackling many of the difficulties faced by educational institutions. The school might develop into a more caring and effective setting where everyone can work and learn by taking into account the input from teachers, administrators, and students, as well as by showing leadership and encouraging behavior. By maximizing teachers' skills and capacities to improve educational efficiency—more specifically, the quality of teaching and learning through instructional supervision—adequate human resources that can impact the educational system can be built.

Professional responsibilities got an overall mean of 4.677 with a standard deviation of 0.4, which is expressed as very high. This indicates that teachers adhered to school policies, utilized technology effectively, participated in professional growth activities, took on school-related responsibilities, and attended seminars for professional development. It is similar to the research of Matias (2023) that educators need to gain experience and go to conferences, workshops, and seminars that are pertinent to their work as supervisors. They ought to be abreast of contemporary developments, particularly in education. To prepare and train future effective and efficient teachers, a primary area should be a continuing program for teachers' personal and professional growth that includes education regarding supervisory competencies and practices.

Additionally, in the same study by Wangda (2023), teachers' views regarding professional standards for teachers are largely favorable. The quality of education is improved when professional standards are put in place because they improve the caliber of teachers. Many educators believe that both the quality of learning and teaching in school environments, as well as individual teacher competency, may be determined by professional standards. Therefore, educators think that professional standards can support capacity building to raise professional competency, which will raise educational standards.

Lastly, the instructional process got an overall mean of 4.606 with a standard deviation of 0.427, expressed as very high. This indicates that teachers effectively prepare for classroom instruction, employ curriculum-related teaching techniques, cater to individual student needs, manage instructional time, communicate effectively, and utilize assessment information for effective instruction. It is in line with the study of Cañete et al. (2023) that teachers enhance their subject knowledge to fully comprehend the curriculum and provide effective instruction in the classroom. Effective lesson planning is a skill of teachers. They take into account the pupils' past knowledge, carry out quick exercises, and foresee potential issues before they arise. Students provide comments to teachers as well. To close the gap between what students need and what teachers can provide, it is imperative that teachers get student feedback.

This finding parallels with the conclusion of Arombo (2023) that teachers' instructional approaches are highly practiced. Instructors set up classroom environments that are more engaging and collaborative for their students, as well as printed modules and educational materials. The exceptional level of success and dedication exhibited by the instructors is reflected in their instructional leadership techniques and instructional abilities. Organizational performance and effectiveness are consistently correlated with teachers' instructional leadership practices and competencies. Teachers have a big influence on the quality of schools; thus, it makes sense that creating effective leaders and teachers should be a top priority for all legislators in order for them to carry out their duties.

3.4 Significance of the Relationship Between Teacher's Stress and Social Support to Teachers' Performance

The relevance of the components is shown in Table 4, which illustrates the relationship between teachers' stress and social support to teachers' performance. The research hypotheses were tested at a 0.05 significance level. The Pearson correlation test examined the relationship between the independent and dependent variables.

Table 4
Significance of the Relationship Between Teachers' Stress and Social Support to Teacher's Performance

Independent Variable	Dependent Variable	r-value	r²	p-value	Decision
Teacher Stress	Teachers Performance	0.300*	0.09	< .001	Reject Ho
Social Support		0.460*	0.2116	< .001	Reject Ho

*p<0.05

Teachers' stress has an r-value of 0.300 and an r-squared value of 0.09 with a p-value of 0.001, which shows that the hypothesis stated that there is no significant relationship between teachers' stress and teachers' performance was rejected. This means a significant relationship exists between teachers' stress and teachers' performance among elementary public school teachers of Santo Tomas West District of Davao del Norte.

This finding is parallel with the conclusion of Cabatac et al. (2023) that teachers had low levels of occupational stress. It is possible that educators have acquired stress and burnout management skills through their work. Their seamless management of their tasks at school was facilitated by their pre-service and in-service training. Additionally, they were not too procrastinating. They do not consider holding up their talks at work to be a habit. They closely adhere to deadline norms when it comes to teaching chores like completing forms, keeping class records, and submitting grades.

While social support has an r-value of 0.460, an r-squared value of 0.2116 with a p-value of 0.001, which shows that the hypothesis which stated that there is no significant relationship between social support to teachers performance was rejected. It means a significant relationship exists between social support and teachers' performance.

The present study revealed a positive relationship between social support and teachers' performance among Santo Tomas West District of Davao del Norte elementary public school teachers. This result is interrelated with Remedios (2020) found a substantial correlation between instructors' teaching performance and support from friends, family, church, and community involvement. This finding is connected to that finding. Instructors concurred that a high level of resilience is facilitated by optimism, challenge orientation, find support-seeking. When educators are completely motivated, they are more equipped to handle challenges. Teachers in educational institutions prefer to believe that someone values and cares about their work, which in turn inspires them to work more productively.

3.5 Regression Analysis on the Influence of Teachers' Stress and Social Support on Teachers' Performance

The linear regression analysis was utilized to validate which indicators of teachers' stress and social support have significantly influence to teachers' performance among elementary public school teachers.

Table 5
Regression Analysis on the Influence of Teachers Stress and Social Support to Teachers   Performance

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	Decision
	B	SE	Beta			
(constant)	2.859	0.283				
Teachers' Stress	0.099	0.070	0.106	1.416	0.159	Do not Reject Ho
Social Support	0.325	0.059	0.410*	5.475	<.001	Reject Ho

Dependent Variable: Teachers Performance

*p<0.05
R-value = 0.470   F-value = 25.326
R² = 0.221   p-value < .001

Table 5 shows that the two independent variables have different results that significantly influence the

dependent variable. Specifically, the first independent variable, which is teachers' stress has no significant influence to teachers' performance because the p-value is greater than 0.05. Furthermore, for the second independent variable which is social support, the p-value is <.001 which leads to the rejection of the null hypothesis. This further indicates that social support has a significant influence to teachers' performance.

The result of the study revealed that the overall R-value is 0.470 and R^2 0.221. This means that 22.1% of the variations in teachers' performance is attributed to both teachers' stress and social support. Consequently, there are 77.9% other factors not included in this study may significantly influence to teachers' performance.

3.6 Regression Analysis on the Domains of Social Support that Significantly Influence Teacher's Performance

Table 6 shows the regression analysis on the influence of the domains of social support on teachers' performance among elementary public school teachers

Table 6
Regression Analysis on the Domains of Social Support that Significantly Influence Teachers Performance

Indicators	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	Decision
	B	SE	Beta			
(constant)	3.107	0.228				
Non-School Sources of Support	0.158	0.056	0.222*	2.811	0.005	Reject Ho
School Sources of Support	0.205	0.054	0.302*	3.819	< .001	Reject Ho
Dependent Variable: Teachers Performance						

*p-value < 0.05   F-value = 24.204   p-value <.001
R-value = 0.461 R^2 = 0.213

Statistics showed an F-value of 24.204 and a p-value of < .001, which indicates that social support significantly influences the performance of elementary public school teachers. The R-value of 0.461 indicates that there is a positive influence of social support on the teacher's performance of elementary public school teachers. The overall R^2 is 0.213, indicating that 21.3% of the teachers' performance is explained by non-school sources of support and school sources of support. Non-school sources of support have a standardized beta coefficient of 0.222 with a probability value of 0.005, and school sources of support have a standardized beta value of 0.302 with a p-value of 0.001. Prominently, all of the p-values are less than the set level of significance of 0.05, which tells that the domains of social support significantly influence teachers' performance.

The study's findings are corroborated by a study of Pinaga and Abastillas (2023) that teachers received much support from the school, including safety support, emotional and psychological support, and assistance for professional growth. Teachers who attended seminars on resilience, mental health, and instructional upgrades as well as those who addressed technological concerns through basic training were afforded excellent opportunities for professional development. Instructors reported that the institution implements initiatives by embracing a dynamic work environment and providing more assistance, particularly with technical matters. Teachers who were not familiar with technology were trained by schools. When they need it, the school provides them with timely, helpful assistance.

4. Conclusion

The study's findings lead to the following conclusions, teachers stress was low in terms of information load, interpersonal load, change load, activity structure, and time structure. Social support was very high in terms of non-school sources of support and school sources of support. Teachers' performance was very high in terms of instructional process, classroom management, interpersonal relationships, and professional responsibilities. Moreover, there was a significant relationship that exist between teachers' stress and teachers' performance. Likewise, there was a significant relationship between social support and teachers' performance. Research results on regression analysis revealed that only social support has a significant influence to teachers' performance. Lastly, all domains of social support have a significant influence on teachers' performance.

4.1 Implications for Teachers and Learners

The first implication for teachers and learners is that educational institutions should not bombard teachers with too much information so that teachers can still focus on their students and lessen their stress, which may help them become better teachers. Also, provide training for professional development, which focuses on time management. The second implication is institution should consider implementing social support in terms of non-school and school sources of support that would make educators feel appreciated and cared for. The organization, communities, and family allow teachers to foster positive views of themselves and develop their competence and confidence. They may also attend team building to motivate teachers to work together and promote a positive relationship with each other. Finally, the Department of Education may provide a program that will strengthen the relationships between teachers and their fellow teachers, their administrators, their communities, and their families, since when teachers are supported, educators are highly committed to their institution, which may improve their teachers' performance.

5.   References

Abejo, C. G., Adanza, D. R. a. G., Salvador, H. N., Uy, M. N. J., Indoc, S. M. P., & Abiol, M. J. D. (2023). The influence of interpersonal skills of working students on client service satisfaction in a Higher Educational Institution. *International Journal of Multidisciplinary Applied Business and Education Research*, *4*(11), 3966–3972. https://doi.org/10.11594/ijmaber.04.11.16

Arombo, C. (2023). Master teachers-school heads designate's instructional competencies, instructional leadership practices and challenges. *Psychology and Education: A Multidisciplinary Journal, 15*(9), 886-903. http://doi.org/10.5281/zenodo.10406078

Azzahra, N. (2020). Addressing distance learning barriers in Indonesia amid the covid-19 pandemic. https://doi.org/10.35497/309162

Balboa, Y. (2020). Teacher stress: effects on occupational performance in an Urban District (Doctoral dissertation, College of Saint Elizabeth).

Baldelovar, R. (2023). Well-being and stress management of high school teachers: Experiences, coping strategies, and performance. *Psychology and Education: A Multidisciplinary Journal, 10*(2), 280-287. https://10.5281/zenodo.8104844

Beduya, J. & Gallardo, R. D. (2022). Social relationships and learning opportunities of teachers at Baliok Elementary School. *The Rizalian Researcher, 9*(1), 1-14.

Bullough, R. V., Jr. (2024). Reimagining classroom management and discipline: The citizenship of schooling and democracy as a way of life. *Teacher Education Quarterly, 51*(1),7+. https://link.gale.com/apps/doc/A785992856/GPS?u=mindanao&sid=bookmark-GPS&xid=6d880a1b

Cabatac, R. , Evangelio, R. , Lirazan, C. , Salvador, R. , Tiapes, R. , Dagunan, M. & Sabidalas, M. (2023). Procrastination and occupational stress of teachers in Philippine Public Schools. *Psychology and Education: A Multidisciplinary Journal, 13*(8), 1-10. https://doi.org/10.5281/zenodo.8365135

Cadag, C. E. (2024). The Effectiveness of individual performance commitment review form as an evaluation tool to improve teachers' performance: Basis for technical assistance. *International Journal of Multidisciplinary: Applied Business and Education Research, 5*(2), 724-747. https://doi.org/10.11594/ijmaber.05.02.30

Cañete, A. G., Hitgano, A. J., Nuñez, E. G., Talamo, A. D., Ymas, R. L. & Bellen, J. A. (2023). A lesson study on teaching impulse and momentum in the new normal. *Universal Journal of Educational Research, 2*(1), 57-66. https://doi.org/10.5281/zenodo.7456049

Cruz, D. D. (2022). Retention and job satisfaction among Pilipino and Offshore Teachers: A Comparative Study. *AIDE Interdisciplinary Research Journal, 3*(1).

Daguman, R. B. (2020). A regression model of teachers performance as predicted by strategic human resource management practices. *International Social Science Review, 2*(1).

Dela Cruz, M. (2023). Coping strategies of teachers amid covid-19 pandemic. Psychology and Education: *A Multidisciplinary Journal, 10*(5), 1-14. http://doi.org/10.5281/zenodo.8126295

Delos Reyes, R. (2023). Management skills of teachers in handling misdemeanor of pupils: Basis for improvement. *Psychology and Education: A Multidisciplinary Journal, 12*(9), 955-967. https://10.5281/zenodo.8289866

Estigoy, B. & Olua, E. (2023). Community involvement practices of public secondary school teachers. *Psychology and Education: A Multidisciplinary Journal, 11*(5), 1-13. https://doi.org/10.5281/zenodo.8196142

Flushman, T., Guise, M., & Hegg, S. (2021). Partnership to support the social and emotional learning of teachers: A new teacher learning community. Teacher Education Quarterly, 48(3), 80+. https://link.gale.com/apps/doc/A673804548/GPS?u=mindanao&sid=bookmark-GPS&xid=261f513e

Goleman, D. (1998). Emotional Intelligence: a strategy for effective administration. Language In India, 13(5), 637+. Retrieved from https://link.gale.com/apps/doc/A331807343/GPS?u=mindanao&sid=bookmark-GPS&xid=c8d81ada

Hoque, K. E., Bt Kenayathulla, H. B., D/O Subramaniam, M. V., & Islam, R. (2020). Relationships between supervision and teachers' performance and attitude in secondary schools in Malaysia. *Sage Open, 10(*2), 2158244020925501.

Iliyasu, R., & Etikan, I. (2021). Comparison of quota sampling and stratified random sampling. *Biometrics & Biostatistics International Journal, 10*(1), 24–27. https://doi.org/10.15406/bbij.2021.10.00326

Jusay, C., & Blancia, M. M. (2021). Social support and social development of grade six pupils of Talomo District A, Davao City. *The Rizalian Researcher, 8*(1), 1-17.

Kalla, S. (2011). Correlational Study. Retrieved from https://explorable.com/correlational-study

Kanya, N., Fathoni, A. B., & Ramdani, Z. (2021). Factors affecting teacher performance. *International Journal of Evaluation and Research in Education, 10*(4), 1462. https://doi.org/10.11591/ijere.v10i4.21693

Korte, D., & Simonsen, J. (2018). Influence of social support on teacher self-efficacy in Novice Agricultural Education Teachers. *Journal of Agricultural Education, 59*(3), 100-123. doi:10.5032/jae.2018.03100

Kothari, C. R. (2004). Research Methodology: Methods and techniques. (2nd revised edition). *New Age International* (P) Limited, Publishers.

Liu, Y., Yi, S., & Siwatu, K. O. (2023). Mediating roles of college teaching self-efficacy in job stress and job satisfaction among Chinese university teachers. *Frontiers in education, 7.* https://doi.org/10.3389/feduc.2022.1073454

Marais-Opperman, V., Rothmann, S. I., & van Eeden, C. (2021). Stress, flourishing and intention to leave of teachers: Does coping type matter?. *SA Journal of Industrial Psychology, 47*(1), 1-11.

Matias, S. (2023). The instructional supervisory competencies of master teachers in the Division of Rizal: Inputs for an enhanced professional development program. *Psychology and Education: A Multidisciplinary Journal, 14*(4), 489-511. http://dx.doi.org/10.5281/zenodo.8437399

Nelson, B. L. (2013). Exploring the relationship between the ventures for excellence teacher styleprofile data and teacher performance. In *ProQuest LLC eBooks*. https://digitalcommons.lindenwood.edu/cgi/viewcontent.cgi?article=1453&context=dissertations

Olivo, M. G. (2021). Time management of teachers and its relationship to teaching performance. *International Journal of Multidisciplinary: Applied Business and Education Research, 2*(5).

Pacia, D. R. & Guevarra, P. M. (2023). Influence of path-goal theory of leadership styles and the moderating role of task structure in leadership on teachers' satisfaction, motivation, and performance. *International Journal of Multidisciplinary: Applied Business and Education Research, 4*(7), 2330-2345. http://dx.doi.org/10.11594/ijmaber.04.07.15

Paguntalan, E. (2023). Teachers' self-efficacy, teaching efficiency and performance of science teachers: Implication to enhancement program. *Psychology and Education: A Multidisciplinary Journal, 10*(8), 831-841. https://doi.org/10.5281/zenodo.8148858

Panisoara, I. O., Lazar, I. M., Panisoara, G., Chirca, R., & Ursu, A. S. (2020). Motivation and continuance

intention towards online instruction among teachers during the covid-19 pandemic: The mediating effect of burnout and technostress. *International Journal of Environmental Research and Public Health, 17*(21), 8002. https://doi.org/10.3390/ijerph17218002

Pinaga, R. & Abastillas, J. (2023). School's support, teacher's commitment and occupational well- being: Basis for enhance faculty development plan. *Psychology and Education: A Multidisciplinary Journal, 10*(10), 1-12. https://doi.org/10.5281/zenodo.8172018

Remedios, M. B. (2020). Work motivation and social support as correlates to teachers' work resilience. *Lamdag, 11*(1).

Rossiandy, Y., & Indradewa, R. (2023). The influence of self-efficacy on job satisfaction, organizational commitment, motivation and job performance in private school teachers. *Asian Journal of Social and Humanities, 1*(10), 632–649. https://doi.org/10.59888/ajosh.v1i10.74

Siegle, Del. "Introduction to Correlation Research." Educational Research Basics by Del Siegle, 24 Feb. 2015, https://researchbasics.education.uconn.edu/correlation/.

Solania, N., Coñado, E., Paguta, M. J., Ventura, R., & Arnado, A. (2023). The influence of workload and work motivation on the performance of teachers. *International Journal of Multidisciplinary Applied Business and Education Research*, *4*(4), 1270–1277. https://doi.org/10.11594/ijmaber.04.04.22

Sun, B., Guo, H., Xu, L., & Ding, F. (2022). How does teachers' psychological capital influence workplace well-being? a moderated mediation model of ego-resiliency and work-meaning cognition. *International Journal of Environmental Research and Public Health, 19*(22), 14730. https://doi.org/10.3390/ijerph192214730

Taguba, R. B. (2022). Correlates of the level of instructional competencies of teachers and learners' performance in english language arts: Basis for a policy recommendation. *AIDE Interdisciplinary Research Journal , 3*(1).

Trongco, G. P. & Benolirao, E. C. (2023). Interpersonal, leadership, and supervisory skills of public school heads. *International Journal of Multidisciplinary: Applied Business and Education Research, 4*(9), 3212-3222. http://dx.doi.org/10.11594/ijmaber.04.09.13

Wangda, K. (2023). Teachers' attitudes to the implementation of Bhutan Professional Standards (BPST) for teachers in Bhutan. *Universal Journal of Educational Research, 2*(3), 268-280. https://doi.org/10.5281/zenodo.8363594

Wittink, D., & Bayer L. (1994). The measurement imperative. Marketing Research, Vol. 6 No.4, pp.14-23.. Retrieved August a, 2018 from http://archive.ama.org/archive/ResourceLibrary/MarketingResearch/documents/9501241286.pdf

Yedla, S. (2014). A-Z classroom management techniques for teachers to teach technocrats. Language In India, 14(11), 238+. https://link.gale.com/apps/doc/A391596273/GPS?u=mindanao&sid=bookmark-GPS&xid=45cabafc

Revitalizing Bicolano heritage through *Pinaggikanan*: A community-centered cultural education

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Abstract

This qualitative case study reviews the Pinaggikanan extension program, identifying the nature of the program, strategies for implementation, and outcomes of the extension program. It also analyzes the implications of the program in education and the community. Pinaggikanan, derived from the Bikol term meaning "origin," is an extension program initiated by a Teacher Education College (TEC) of a state university in Camarines Sur, Philippines. Since 2015 the program was implemented with the primary goal of promoting Bicolano culture and arts through the development and dissemination of IEC materials. The program supports SDG 4 by enhancing education through local history integration, SDG 17 by fostering partnerships with schools, local governments; and SDG 11which promotes sustainable communities and the protection of cultural heritage. This extension program utilized community-centered cultural education approach. Its implementation is characterized by collaborative partnership and integrated research, extension, instruction, and publication for cultural awareness in the target localities. Annual Pinaggikanan Festivals were conducted wherein beneficiaries were able to express their appreciation for their Bicolano heritage through artistic expression. Based on the assessment conducted, it showed that beneficiaries who engaged in Pinaggikanan activities developed a high level of interest and appreciation for their municipality's heritage, which translated into increased civic action and community involvement. This paper revealed that the Pinaggikanan extension program enriches cultural awareness by incorporating local legends, folktales, and arts into educational activities, creating meaningful and context-based learning experiences. This exemplifies an effective model of community-centered cultural education that may be replicable in other regions.

Keywords: extension program, Bicol heritage, cultural awareness, community-centered cultural education, IEC materials

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1. Introduction

Cultural heritage is a vital part of a community's identity, representing its history, values, and traditions. In the Bicol Region of the Philippines, this heritage is reflected in its festivals, arts, oral traditions, and customs. However, cultural knowledge and practices are gradually disappearing, especially among younger generations, as a result of modernization and globalization. This emphasizes the importance of efficient initiatives that can close the gap between conserving cultural heritage and adapting it to modern society.

One such initiative is Pinaggikanan, an extension program initiated and implemented in 2015 by a TEC in a state university in Camarines Sur, Philippines. The program's name, derived from the Bikol term for "origin," reflects its goal to promote Bicolano history, culture, and arts. The extension program accomplishes this through the creation and distribution of printed information, education, and communication (IEC) materials. Pinaggikanan also supports the United Nations Sustainable Development Goals (SDGs), particularly SDG 4, which focuses on quality education by integrating local history into learning materials; SDG 17, which emphasizes partnerships to achieve shared goals; and SDG 11, which promotes sustainable communities and the protection of cultural heritage.

The program's objectives include fostering an appreciation for local heritage among students, teachers, and community members through a variety of art forms, such as literary, visual, performing, and media arts. Additionally, Pinaggikanan promotes cultural awareness and evaluates artistic skills through activities like the annual Pinaggikanan Festival. By combining education, community engagement, and artistic expression, the program provides a model for sustaining cultural heritage while fostering a sense of pride and identity.

The objectives of this study are: (1) Identify the Pinaggikanan extension program, emphasizing the nature of the program, strategies of implementation, and outcomes of the extension program; and (2) Analyze the implications of the program to education and community. This study is guided by the theories Cultural Transmission Theory, Cultural Identity Theory, and Cultural Education Theory. Cultural identification Theory (Kim, 2002; Collier, 2005) emphasizes the significance of common cultural practices in promoting identification and belonging, Cultural Transmission Theory (Van Schaik, 2011) describes how cultural information is transmitted down from one generation to the next. Tosande raise awareness and preservation, Cultural Education Theory (Smith & Sobel, 2010) places a strong emphasis on incorporating cultural information into the classroom.

This study also recommends several actions and initiatives that may be implemented to improve the extension program further helping in the preservation of cultural heritage amidst the changing world. By doing so, it contributes to the broader discourse on cultural preservation and sustainable development, ensuring that programs like Pinaggikanan continue to serve as a bridge between the past and the present.

2. Methodology

This study is a qualitative research design using a descriptive approach to describe the nature, implementation strategies, and outcomes of the extension program and to analyze the impact of the program. The descriptive research design was used because it is best suited for exploring the nature and effectiveness of programs like Pinaggikanan, where the focus is on documenting activities, processes, and outcomes based on stakeholders' experiences. According to Sandelowski (2000), qualitative descriptive studies provide a comprehensive summary of events as they are experienced, making them ideal for program evaluation.

Also, this study uses a case study design to explore Pinaggikanan extension program. Case study research is particularly suited for examining complex, real-life phenomena within their specific contexts, as it allows for a holistic and detailed understanding of the subject (Yin, 2018). Since the program was specifically conducted at the TEC in a state university in Camarines Sur, case study design may facilitate the flexible analysis of this particular context. It also enables the researcher to use multiple sources of data such as proposals, accomplishment reports, social media posts, direct observation, and others. Furthermore, Creswell and Poth (2018) note that case studies allow researchers to explore phenomena from the perspectives of various stakeholders, providing rich, contextualized insights. In this study, the voices of program coordinators, beneficiaries, and community partners are essential to understanding the program's impact.

2.1 Research Methods

This study used different qualitative methods to gather and analyze data, ensuring a comprehensive understanding of the Pinaggikanan program. These methods include document analysis, interviews with various stakeholders, evaluation of festival assessments, and social media analysis. For the document analysis, it involved examining program documents, reports, communications, and IEC materials. This information provided insights into the program's development, goals, and implementation strategies. Documentary analysis offers foundational data, which is essential for understanding the framework of the program (Bowen, 2009). Semi-structured interviews were also conducted with stakeholders, including program coordinators, teachers, students, and local government representatives. This approach allowed for an in-depth understanding of their perspectives, experiences, and challenges regarding the extension program. Interviews are a well-established qualitative method for gathering rich, detailed data from participants (Creswell & Poth, 2018). Data from assessments during the Pinaggikanan Festivals were also analyzed. These evaluations provided insights into the program's effectiveness and its contributions to the community. Lastly, the study employed social media analysis. During the COVID-19 pandemic, the program utilized digital platforms to sustain its activities. Social media posts and radio broadcast recordings were analyzed to evaluate how the program maintained its efforts during this period. According to Sloan and Quan-Haase (2017), social media analysis is increasingly recognized as a valuable tool for assessing digital engagement in qualitative research. By using these methods, the study ensured a comprehensive analysis of the Pinaggikanan program.

2.2 Research Locale

The study was conducted in Camarines Sur, Philippines, where the Pinaggikanan program has been actively implemented since 2015. Specifically, the program engaged schools and communities in municipalities such as Bula, Nabua, Magarao, and Baao. These areas were chosen because of their active participation in the program and their representation of the diverse cultural heritage in the Bicol Region.

2.3 Research Procedures and Ethical Considerations

This study followed a systematic process and ensured ethical considerations. First, permission to conduct the research was obtained from the university's respective offices and program coordinators. Relevant program documents, such as program proposals, letters, reports, activity proceedings, and evaluation results, were gathered and examined to understand the program's nature, goals, implementation, and outcomes. Then, data were collected, analyzed, and discussed. Ethical considerations were carefully followed throughout the study. All participants were asked for informed consent before the start of the interview. The purpose of the study was clearly explained to them, including how the data would be used and their rights as participants. Confidentiality was strictly upheld. Their names were anonymized and their identities remained protected. Participants were informed of their right to withdraw from the study at any point. These steps were essential for promoting transparency and adhering to ethical research standards, as recommended by Orb et al. (2001).

3. Results and Discussion

3.1 Nature of the Program

The state university has a dedicated Extension Services Division (ESD) office that functions as a key player in implementing community development interventions of the university. These interventions aim to engage stakeholders through a systematic and participatory process. Specifically, university extension services focus on organizing stakeholders, developing programs and activities, efficiently utilizing resources, building partners, documenting the implementation process, and conducting monitoring and evaluation activities. These functions align with the university's approved manual, which articulates extension as one of the four core mandates of its faculty and personnel alongside instruction, research, and production.

The Pinaggikanan extension program is aligned with the extension agenda of the TEC and of the university. These were collaboratively crafted by the college and the ESD. It was presented to both internal and external stakeholders and received formal approval. The process for developing extension programs at the university follows a sequential procedure such as proposal review, program implementation, monitoring, and evaluation.

Moreover, needs assessments were done in the proposal preparation wherein the stakeholders were active in the identification of the community needs. Specifically for this extension program, the needs for local cultural and historical knowledge and appreciation were identified. Also, participatory planning was done to ensure that the ideas and needs of Local Government Units (LGUs), youth councils, and officials and teachers in basic education schools are considered. This agrees with the study of Ferrer and Cruz (2017), where they mentioned that effective extension programs rely on participatory planning and strong community partnerships. Henares (2022) further notes that partnerships with local government units enhance the sustainability and impact of conservation programs. In the case of Pinaggikinan program, the resources of the state university such as the expertise of faculty members and specialization of pre-service students of the TEC were matched with the needs of the community.

Once a program proposal is finalized, it is submitted to the ESD for review and approval. The approved proposal then advances to implementation. Regular annual evaluations, which include inputs from external evaluators, provide valuable feedback to enhance future program designs.

3.1.1 Program Goals

The Pinaggikanan Program is a flagship extension initiative of the Bachelor of Elementary Education Program of the TEC in Camarines Sur, Philippines from 2015-2023, designed to promote Bicolano culture and arts through the development and dissemination of IEC materials. Its specific goals include: (1) Fostering appreciation for the origins of each barangay and municipality through creative writing, visual arts, media, and performing arts; (2) Promoting cultural awareness, social action, pride in local heritage, and environmental preservation among LGUs; and (3) Developing IEC materials on the history of barangays and municipalities, derived from indigenous plant-based stories, for distribution to participating schools and LGUs. The development and dissemination of IEC materials, as included in one of its program goals, is consonant with the findings from Vargas (2019). He highlights the importance of culturally relevant educational materials in fostering local identity. Vargas further argues that such materials can promote cultural pride and awareness among younger generations.

3.1.2 Partner Agencies

The Pinaggikanan Program's success is anchored in its strategic partnerships with key stakeholders. A Memorandum of Agreement (MOA) with the basic education schools in Camarines Sur, Philippines ensures the program's integration into schools across Bula, Nabua, Magarao, and Baao, Camarines Sur, Philippines. Additionally, partnerships with the youth council ensured the engagement of young citizens. It helped enhance cultural awareness through their participation in various activities.

In the 2020s, the program was further adopted by the Baao, Camarines Sur LGU and a basic education school in the said locality. These partnerships integrate Pinaggikanan Festival into barangay and school activities, such as their celebration of festival where the state university program coordinators were invited as resource persons and judges.

3.2 Strategies of Implementation

The Pinaggikanan Program employed an innovative methodology that integrated research, extension, instruction, and publication for cultural awareness in the target localities. This approach was strengthened through formal partnerships established via memoranda of agreement.

3.2.1 Compilation of IEC materials

The program has a compilation of local folktales, legends, and historical narratives into published materials, which were utilized in both classroom settings and community events. These materials served as valuable resources for promoting culturally rooted education. This is aligned with the study of Smith and Sobel (2010), which emphasizes the importance of integrating place-based and culturally responsive materials in educational frameworks. Similarly, Acabado and Lauer (2014) noted how integrating cultural narratives through community partnerships promotes cultural conservation effectively. Ancho and San Juan (2021) also highlighted that the inclusion of heritage-related themes in educational materials can significantly enhance cultural awareness and appreciation in local communities.

3.2.2 School and Community-based Pinaggikanan Festivals

Another mode of implementation of Pinaggikanan Program was the organization of school- and community-based festivals centered around themes related to the lifecycle of plants since the mandate of the university is agriculture-related. These events were adopted by local youth councils, including the youth council, and supported by LGUs, highlighting the program's collaborative nature. The festivals celebrated local history and culture, instilling a sense of pride and identity among participants. This approach is consonant with findings by Ferrer and Cruz (2017), who stated that participatory cultural activities contribute to enhancing community engagement and cultural preservation. Furthermore, the Pinaggikanan Program aligns with insights from Domingo & Roxas (2015) on the value of citizen participation in community-based heritage projects.

3.2.3 Conduct of Research

The program was the result of the study conducted by Dr. Gloria Osea in 2015, titled Pinaggikanan: Toponyms of Barangays and Municipalities in the Province of Camarines Sur. The study identified a lack of cultural awareness among respondents and underscored the need for interventions to promote local history. The study led to the compilation of five Pinaggikanan folktale books, which were used to develop printed materials for culture-based teaching under the K-12 curriculum. This aligns with the work of Vargas (2019), who emphasized the significance of culturally relevant educational resources in fostering local identity and awareness.

In 2016 and 2018, two studies were conducted to evaluate the outcomes and overall impact of the Pinaggikanan Program on cultural awareness and engagement. In 2023, additional research focused on assessing

the gender sensitivity of the Pinaggikanan stories and publications, ensuring that the program's materials promote inclusive and equitable representations. This effort answers the recommendations of UNESCO (2020), which advocates for the creation of inclusive educational materials to promote equity and representation in cultural education.

3.2.4 Program Proposal and Implementation

The Pinaggikanan Program was approved for implementation in 2015 and employed various strategies, including seminar-workshops for students and teachers, as well as literary and cultural competitions. These activities provided platforms for creative expression while reinforcing the program's objectives of cultural promotion and education. Over the years, the program introduced thematic festivals such as *Pagpatalubo kan Istoryang Pinanggikanan (2015)*. The Bicol word *pagtalubo* means "to sprout," as in the emergence of a plant, while *istoryang pinaggikanan* means "stories of one's origin." Together, the title of the event, *Pagpatalubo kan Istoryang Pinaggikanan*, symbolizes the extension program as a seed of cultural knowledge and appreciation and are ready to sprout and grow through the extension program. By the program's fifth year, the festival was titled *Pag-ani kan mga Arteng Pinanggikanan*. The term *pag-ani* means "harvesting," and *arteng pinaggikanan* translates to "arts works of one's origin." This progression in event themes reflects the program's journey—from planting the seeds of cultural and historical awareness to harvesting the fruits of appreciation and engagement through arts.

During the COVID-19 pandemic, the program adapted to digital platforms. Activities such as radio broadcasts on DWOS 103.9 Boom FM, educational vlogs on local bamboo crafts, and online documentaries on local legends were done. Talk shows such as It's a DATE and BET Ko! further helped the program's reach and impact. This approach aligns with the study by Eisenlohr (2004), who emphasized the role of digital technologies in expanding the accessibility and relevance of cultural programs in modern contexts. Through its integration of research, education, and community participation, the Pinaggikanan Program stands as a model for revitalizing local heritage to promote cultural awareness and promotion.

3.3 Outcomes of the Extension Program

The Pinaggikanan Program has shown success in meeting its objectives, particularly in fostering cultural appreciation, encouraging civic engagement, and developing educational resources. Through its emphasis on creative arts, strategic community partnerships, and the creation of IEC materials, the program has contributed to the preservation and promotion of Bicolano heritage.

3.3.1 Objective 1: Development of Appreciation for Local Origins through Creative Arts

The Pinaggikanan Program has successfully instilled an appreciation for local origins among its participants during the Pinaggikanan Festivals. According to the survey conducted in 2016 by the pre-service teachers to the 53 secondary school student beneficiaries from six Pinaggikanan schools, most students were highly engaged and interested in the origins of their municipalities. Many actively participated in and showed enthusiasm for festival-related activities that celebrated these origins.

Furthermore, an assessment of the student beneficiaries' skills across various artistic areas was conducted. It revealed high levels of competency. In literary arts, students participated in essay writing and poster-making contests, with three out of nine participants achieving an "excellent" level and others receiving "outstanding," "very good," or "good" ratings. In visual arts, such as poster-making and painting, four out of eight students reached the "excellent" level, with the remainder performing at an "outstanding" level. Performing arts, which included storytelling, traditional poetry (*tirigsikan*), and creative dance, yielded an overall rating of "excellent," showing the program's success in enhancing cultural competencies. Film and media arts also saw participants achieving high standards, further demonstrating the program's effectiveness in nurturing artistic skills. These assessments showed that elementary school student beneficiaries have high interest, awareness, appreciation, and

skill competency across artistic areas. These findings agree with Vargas (2019), who stated that integrating culturally relevant creative arts into education strengthens identity and fosters pride in local traditions. Furthermore, The role of local schools in cultural preservation, as explored by Bonnet et al. (2018), aligns with the program's goal to integrate cultural education into curricula.

3.3.2 Objective 2: Promotion of Cultural Awareness, Civic Action, and Environmental Preservation

The Pinaggikanan Program's community-based approach, particularly its partnerships with local governments, has magnified its impact by encouraging civic engagement, cultural pride, and environmental awareness. The program was able to collaborate with the youth council in Bula, Camarines Sur for the integration of cultural themes from Pinaggikanan into their annual celebration of Youth Week (*Linggo ng Kabataan)*. This partnership facilitated various competitions—such as promotional video-making, slogan creation, and logo design—that empowered participants to creatively express their cultural heritage and pride. Notably, the winning logo design from this collaboration was adopted as the official emblem of the Youth Council of Sagrada Bula, Camarines Sur creating a lasting symbol of cultural identity.

In 2018, pre-service students of the TEC assessed the beneficiary's result of participation in the program. It showed that participants who engaged in Pinaggikanan activities developed a high level of interest and appreciation for their municipality's heritage, which translated into increased civic action and community involvement. Reinforcing these findings, the leader of the youth organization of Bula, Camarines Sur shared on the program's lasting impact, stating, "the TEC in a state university in Camarines Sur planted the seed of Pinaggikanan in Bula, and we, the youth, cultivated it in the name of history, culture, and arts." This statement implies the Pinaggikanan Program's success in instilling cultural pride and ownership within the community's youth. The impact aligns with Ferrer and Cruz's (2017) study, which highlights the critical role of participatory cultural programs in fostering sustainable civic engagement.

3.3.3 Objective 3: Development of IEC Materials on Barangay and Municipal Histories

The Pinaggikanan Program also emphasized the creation and distribution of IEC materials that highlight the histories and cultural significance of various barangays and municipalities. These materials include folktales, legends, and origin stories derived from historical research. These were then provided to local schools and government units for educational use. According to the assessment done after the implementation of the program in 2018, student beneficiaries using Pinaggikanan resources demonstrated high competency in literature and cultural expression. One of these IEC materials is the Pinaggikanan Folktale Book, a compilation of origin legends from partner municipalities. Additionally, the program developed a newsletter titled "The Climb". This IEC was used in the instructions of pre-service teachers during their demonstration teachings, wherein one of them received an award in Bicol Region's Ten Outstanding Student Teachers competition, with one student placing third overall. This recognition underscores the effectiveness of Pinaggikanan's IEC materials in fostering culturally responsive education, supporting culture-based teaching, and contextualizing lessons in elementary and secondary schools.

3.4 Implications to Education and Community

This paper revealed that the Pinaggikanan extension program enriches cultural awareness by incorporating local legends, folktales, and arts into educational activities, creating meaningful and context-based learning experiences. By incorporating community-specific IEC materials, the program fosters a deeper connection to heritage among students, promoting a stronger sense of identity and belonging (Smith & Sobel, 2010). Moreover, the development of IEC materials contextualized to the Bicol Region ensures that Bicolano heritage is both preserved and revitalized, addressing the need for contextualized and culturally relevant education.

The Pinaggikanan extension program exemplifies an effective model of community-centered cultural education, offering a replicable framework that can be adopted in other regions across the country to address

similar challenges. This is aligned with the study of Dulay and Villanca (2023), where they emphasized the importance of community-driven approaches in teacher-led extension programs for cultural education. Furthermore, the potential for culture-based education to bridge traditional and modern learning approaches is supported by Vitorillo and Arriola (2018). This approach aligns closely with UNESCO's (2020) framework for sustainable cultural education and supports the United Nations Sustainable Development Goals, particularly SDG 4, which emphasizes quality education, and SDG 11, which promotes sustainable communities and the protection of cultural heritage.

4. Conclusion and Recommendations

The Pinaggikanan program has proven to be an effective way to promote and preserve Bicolano heritage by connecting the beneficiaries to their cultural roots. Through the use of local legends, folktales, and creative arts, it has fostered cultural awareness and pride among students, teachers, and community members. Its focus on collaboration, education, and the development of IEC materials shows how culture-based initiatives can be both meaningful and impactful. The program's success reflects the value of engaging communities in preserving traditions while adapting to the needs of today's society.

This study recommends expanding partnerships with additional agencies, educational institutions, and cultural organizations. This may broaden the program's reach and resources. Collaborating with NGOs and private sector stakeholders can provide new opportunities for funding and support. Second, the program may incorporate technology and digital media for better dissemination of IECs and social media campaigns. Third, the program may promote gender sensitivity. It may initiate efforts to ensure and address gender biases in cultural narratives and encourage inclusive and gender-fair language in writing IECs. Fourth, the program may empower young leaders to initiate cultural promotion and preservation activities. Lastly, alumni of the TEC may be engaged to maintain sustainability. They may serve as ambassadors of Bicolano heritage and sustain the goals of the Pinaggikanan extension program.

5. References

Acabado, S., & Lauer, A. J. (2014). Rethinking history, conserving heritage. SAA Archaeological.

Ancho, I., & San Juan, M. P. (2021). Preservation of heritage school buildings in the Philippines. Journal of Urban Culture Research, 22.

Bonnet, M. P. D., Melegrito, M. L., & Songco, E. A. (2018). Cultural education in the Philippines: An impact assessment. Asia-Pacific Journal.

Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative Research Journal, 9(2), 27–40. https://doi.org/10.3316/QRJ0902027

Collier, M. J. (2005). Cultural identity and intercultural communication. In W. Gudykunst (Ed.), Theorizing about intercultural communication (pp. 235–256). Sage.

Creswell, J. W., & Poth, C. N. (2018). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). SAGE Publications.

Domingo, S., & Roxas, M. (2015). Creating alternative community settings: The case of a community-based heritage project in the Philippines. Community Psychology in Global Perspective.

Dulay, L. A., & Villanca, A. A. (2023). Constructive community engagement: The experiences of elementary laboratory teacher-extensionists. Journal of Multidisciplinary in Social Sciences.

Eisenlohr, P. (2004). Language revitalization and new technologies: Cultures of electronic mediation and the refiguring of communities. Annual Review of Anthropology, 33, 21–45.

Ferrer, A. R., & Cruz, A. B. (2017). Community engagement in higher education: Frameworks and approaches. Philippine Journal of Extension and Development, 14(2), 45–58.

Henares, I. A. S. (2022). Heritage conservation policy in the age of tourism: Developing frameworks for conservation, management, and sustainability in Philippine local governments. Purdue University.

Kim, Y. Y. (2002). Adapting to a new culture: An integrative communication theory. In W. Gudykunst & B.

Mody (Eds.), Handbook of international and intercultural communication (pp. 259–273). Sage.

Orb, A., Eisenhauer, L., & Wynaden, D. (2001). Ethics in qualitative research. Journal of Nursing Scholarship, 33(1), 93–96. https://doi.org/10.1111/j.1547-5069.2001.00093.x

Sandelowski, M. (2000). Whatever happened to qualitative description? Research in Nursing & Health, 23(4), 334–340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G

Sloan, L., & Quan-Haase, A. (2017). The SAGE handbook of social media research methods. SAGE Publications. https://doi.org/10.4135/9781473983847

Smith, G. A., & Sobel, D. (2010). Place- and community-based education in schools. Routledge.

UNESCO. (2020). Reimagining our futures together: A new social contract for education. Paris: UNESCO Publishing.

United Nations. (n.d.). Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. United Nations Sustainable Development Goals. Retrieved from https://sdgs.un.org/goals/goal4

United Nations. (n.d.). Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable. United Nations Sustainable Development Goals. Retrieved from https://sdgs.un.org/goals/goal11

Vargas, M. R. (2019). Culturally responsive pedagogy and the use of local materials in education. International Journal of Educational Development, 34(3), 99–111.

Van Schaik, C. P. (2011). Cultural transmission and the evolution of human behavior. Evolutionary Anthropology: Issues, News, and Reviews, 20(6), 244–254.

Vitorillo, J., & Arriola, M. S. M. (2018). Safeguarding intangible cultural heritage in the Philippines. In Routledge Handbook of Cultural and Heritage Management.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.

Challenges and interventions in writing from the perspective of selected tertiary students: Basis for an enhanced and context-sensitive writing curriculum

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Abstract

In an English classroom, participants—students and teachers alike whose first language may not necessarily be English—immerse to the six, previously five, macro skills namely: speaking, writing, listening, reading, and viewing. It is important to underscore, as studies have shown, the thought that writing, along with listening, is seen to be the hardest among the skills to teach. In light of such assertion, this study looked into the challenges tertiary students encountered when they write essays or writing tasks required for submission as well as their proposed interventions on how they can be best helped with respect to these challenges. The data were obtained through a survey questionnaire containing two open-ended questions (one dealing with what challenges students encounter and the other their proposed interventions in light of these challenges) deployed across 140 students who were asked to about their perceived challenges in writing as well as their proposed interventions on how they can be helped following the needs analysis framework. The findings revealed that among the most prominent challenges encountered by students are as follows: (1) clarity and coherence, (2) organization of ideas, and (3) word choice. On the proposed interventions, the following were obtained based on the responses: (1) feedback from instructor, (2) input on the use of strategies such as outlining and mind maps, and (3) reading and exposure to required language materials. These findings are then used as basis for policy recommendations for an enhanced writing curriculum offered by the department responsive to these needs and incorporating the students' proposed interventions. As a venue for further studies, it would be good to conduct a focus-group discussion (FGD) on the side of the teachers for the implementation of an enhanced writing curriculum to be offered among college students.

Keywords: challenges, interventions, writing curriculum, context-sensitive, tertiary students

Challenges and interventions in writing from the perspective of selected tertiary students: Basis for an enhanced and context-sensitive writing curriculum

1. Introduction

Writing is one of the five, previously four, macroskills of English. The others are speaking, reading, listening, and, more recently, viewing. According to Beare (2019), it is considered as one of the hardest skills to master and to teach because it requires the simultaneous application of all other requisite skills. Additionally, as in the study of Balqiyah (2021), not only is the simultaneous application of requisite skills required in writing, the learners themselves are also very much involved in the process of writing: pre-writing, during writing, and post-writing. Both these points are central to how writing is learned and mastered in the context, at least, of English as a second language. Such assertion is also echoed by Baharudin et. al (2023) who said, in their study, that writing in English is seen to be a challenging task for non-native speakers of the language, as the participants in this study.

Such difficulty in mastering writing is concretized in the study of Aldabbus and Almansouri (2022) in their study on academic difficulties faced by tertiary EFL (English as a Foreign Language) learners. The findings of their study revealed salient points considered by students as challenges when they write. These are as follows: choosing the appropriate words, difficulty in developing thesis statements, organizing ideas, and writing coherent paragraphs. They further went on to say that these challenges are further aggravated by the fact that students were not exposed to the required language materials as evident by their low English language proficiency and lack of feedback. Finally, their study suggested that the findings should form as part of the considerations in designing the writing/language curriculum.

Sa'adan et. al (2024) echoed the same by pointing out that, in terms of undergraduate students, there are, indeed, challenges when it comes to writing. Their study also found out that, apart from the ones mentioned in the previous paragraph, the undergraduate students also encounter difficulties goal setting, clarity of instructions, topic, familiarity, and confidence in grammar and usage. In light of these challenges and difficulties, they mentioned that it is important to determine the efficacy of specific instructional strategies and interventions in relation to these writing difficulties.

In the Philippine academic context, the study of Gorospe and Rayton (2022) sustained similar findings in the context of college students. Their study found out that students have problems in writing particularly in major sub-areas of the skill which are: syntax, grammar, and vocabulary. In addition, the study also noted that, among the students' recommendations in light of these writing difficulties, teacher assistance and exposure to language materials such as reading matter in the development of writing skills. In relation to these difficulties, the study of Salvador (2024) outlined writing strategies that aim to facilitate the writing skills of Filipino college students. The study revealed that basic writing workshops, online webinars, and instructional material development are pivotal in the process of learning the nuances of writing as a skill. The studies cited in this paper point to three important insights: (1) that writing is a difficult skill to master; (2) that there are challenges faced by students especially if they are not native speakers of the English language, and (3) that these challenges must be accounted for in the design and implementation of the language curriculum.

Given these assertions from the studies cited, it is also important to include in the discourse the concept of English for Specific Purposes (ESP) as a way to synthesize these assertions. According to Hyland (2022), ESP is different from a more general English course as it focuses on particular and purposeful use of language. Such particularity in language and purposeful use of language in the context of ESP points to the centrality of needs analysis (the framework adopted in this study). In other words, the specific purpose in the acronym of ESP is dependent primarily on context—and this context is best concretized when the needs (challenges, difficulties,

perceptions) of students are accounted for. Although the English 014 class used in this study is not an ESP-course, this is still important as this assertion on the importance of needs analysis and students' context paints a greater picture of the writing class—or any language class for that matter—that, in writing, we cannot isolate the context and experiences that shaped the students.

2. Theoretical Framework

The study follows the needs analysis framework as its theoretical underpinning. According to Brown (1995), as cited by Kaya (2021), it refers to the systematic collection and analysis of all subjective and necessary information to define and validate the curriculum according to the language learning requirements of students. This is important to underscore since the concept of language learning requirements –construed as the tertiary students' perceived challenges and their proposed interventions—is central to this study. As such, the English 014 (Writing Communication) class is considered to be 'ideally' according to the varying learning language requirements of these tertiary students. This view is sustained by Sani, et. al (2020) in their study about needs analysis and strategies for language teachers. They mentioned, in their paper, that needs analysis is a pivotal element of any language course—regardless if the course is considered to English for Specific Purposes or General English. This is best concretized in curriculum design and teaching and learning. In other words, the curriculum design and the teaching-learning activities in the course should very much reflect the centrality of students in the discourse.

Sharmin (2023) articulated that the conduct of needs analysis determines the success of any language course. She further categorically asserted that such conduct of needs analysis allows the students to take part in curriculum design, which is largely the work of teachers and other experts. This is an important insight in relation to the present study because it is true that, in the context of the English 014 course, the syllabus and the curriculum are designed by the teachers who are teaching this course; however, students' needs are not yet accounted for in such design. That is why this study attempts to redo that practice by actually allowing the students—who are at the receiving end of classroom instruction—to actively take part in the writing course such that their writing concerns and proposed interventions are taken into consideration. This is echoed by Hidayati and Meisani (2023) in their study. They indicated that the findings of any needs analysis done to students should form part of the course goals and objectives, ultimately benefitting the students for which it is designed.

These four studies on needs analysis, although not to be taken as the study's attempt to provide a comprehensive examinations of studies on the topic, point to glaring fact that a language course must be in accordance to the students' context—be it their needs or challenges. As such, the effectiveness of the language course's design and implementation is not solely dependent on the teachers as its designers and implementers, but it also rests on how attuned the course is in terms of its topics, activities, and other assessments to the needs of the students who, as mentioned, are at the receiving end of instruction.

Although, it is important to mention that the English 014 (Writing Communication) class from which these students who were participants of these study were enrolled is considered to be a general education (English) course. That is why there is no clear regard on the context of students particularly in terms of writing as the curriculum, its design, the materials are solely based on the teachers implementing the course. In that light, the findings of this study, where needs analysis was conducted, is actually an attempt by the researcher to redefine the English 014 (Writing Communication) course from a general English course to an English for Specific Purposes (ESP) course. That way, in the researcher's view given the findings of the study, the course becomes more responsive and attuned to the actual needs of the students enrolled in the class. Additionally, it also aims to place premium in needs analysis as an important diagnostic mechanism for non-native English language students in response to their context.

In relation to context, this study also subscribes to the Ignatian Pedagogical Paradigm (IPP) as its another framework. IPP, as it is more commonly known, is central to the Jesuits particularly in their mission in the

education sector. It is considered not as a template for a lesson plan but rather a worldview that fosters constant reflection. The IPP puts premium on the concept of context as the beginning of teaching-learning. This is, perhaps, an abstraction of needs analysis. In other words, the underlying concept of 'analyzing the needs of the students' primarily points to this concept of context. In Ignatian education, the context is the first among the sequence of steps—primarily because, Jesuits believe as pointed out by Mesa (2023), it facilitates the conditions of learning. That is why what follows the determination of context in the Ignatian Pedagogical Paradigm is the experience. Therefore, true learning, in the sense of Jesuit education, occurs when context students (and by extension of the world) is factored in the design and implementation of the curriculum. Additionally, the Jesuits' idea of context also is borne out of a related term—cura personalis, which means care or respect for the individual (student's) person. Again, this is important in the present study as the students' context is given emphasis in the design and the implementation of the course.

Needs analysis, context, and *cura personalis* are interrelated terms. In fact, needs analysis, a method, is a concretization of the value of knowing the students' context—meeting where they are before they enter the classroom and caring for them as students endowed with (writing) experiences that ultimately shape them. Therefore, as a way to reiterate, needs analysis provides a potent view of not only the extent of the students' learning of the writing skill but, more importantly, the challenges that they encounter with it and the interventions that can help them harness the skill.

2.1 Statement of the Problem

This study explores tertiary students' perceived challenges and interventions in academic writing. Particularly, it aims to answer the following specific questions:

➢ What are the perceived challenges encountered by college students in academic writing?

➢ How do they think they can be helped in light of such challenges?

➢ What recommendations may be proposed given the challenges and interventions obtained from the students?

3. Methodology

Research Design - The study follows a qualitative-quantitative approach in obtaining the required data to answer the specific questions. The first part of the study involved the provision of an open-ended survey questionnaire where students were asked to regarding the challenges they encounter in in the context of academic writing. Afterwards, they were asked to answer, still in detail, how they think they can be best helped given the challenges that they have indicated. As this study aimed to only provide baseline data on students' challenges and interventions in academic writing, the choice of having an open-ended questionnaire warrants that the respondents would be able to articulate very well and in detail these perceived challenges and the interventions they think that can best help them. On the side of the researcher, this provision allows for a broader determination of the challenges and interventions suited to the varying context of the students as respondents. The second part was obtaining the frequency of the students' responses to determine the dominant challenges and prevailing interventions to arrest such challenges. In this study, the top three responses for both challenges and interventions in academic writing were considered. In addition, to supplement the tabulated data, qualitative insights on these challenges and interventions are provided. Finally, policy recommendations are provided in light of all these in relation to the curriculum enhancement of the English 014 (Writing Communication) course.

Research Participants - The participants in the study were 140 selected tertiary students enrolled in English 014 (Writing Communication) class. They were chosen following the convenience sampling method (provided that they were officially enrolled in the course) as the open-ended survey questionnaire was carried out as a way to look the students' context with respect to the challenges that they encounter when they do academic writing as

well as their proposed interventions on how they can be best helped. Since English 014 is a General Education course (GE) which means that all students regardless of degree program will take the course, the participants of this study vary in terms of degree program: Engineering, Psychology, Computer Science and Information Technology, Business and Accountancy, Criminology, Hospitality Management, Nursing, and Pharmacy. It is important to take note that the degree program from which the research participant belongs to is not a variable or a factor in this study because this, the present study, only aims to provide a baseline data on the challenges of students in academic writing and their proposed interventions notwithstanding their academic programs.

Research Environment - The participants are selected undergraduate students from Cebu Institute of Technology – University. These undergraduate students come from various degree granting units of the institution. They are a mixed-group of students in both gender (male and female) and in year level. These are not a factor in this study given the reason mentioned in the previous paragraph. Cebu Institute of Technology – University is one of the four universities that had been granted autonomous and deregulated status from the Commission on Higher Education (CHED) for its exemplary performance in these areas: instruction, extension, and research. It has five degree-granting units: College of Arts, Sciences, and Education, College of Engineering and Architecture, College of Nursing and Allied Health Sciences, College of Management, Business, and Accountancy, and the College of Criminal Justice.

Research Data - The data were obtained from an open-ended survey questionnaire which allowed the participants to reflect and indicate the challenges that they encountered in writing. Afterwards, they were also asked to answer how they think they can be best helped in light of these challenges. As mentioned in the previous design section of this paper, the choice of having an open-ended questionnaire allowed for the participants to be in detail about their challenges in academic writing as well as their proposed interventions. In other words, as this study is only a baseline study of challenges and interventions in academic writing, the students were not confined to pre-determined difficulties and interventions, thereby allowing them to be reflect on the breadth and depth of their challenges and interventions. As a researcher, this was a warranted choice since the data were quite exhaustive and responsive to the aim of this paper—to provide baseline data. Once these data on the challenges and interventions were obtained, they were tabulated based on simple frequency to determine the dominant challenges and interventions. Again, this was guided by the fact that this paper is only a showcase of baseline data on academic writing challenges and interventions. Afterwards, qualitative insights from the study participants detailing their experiences in light of difficulties were also provided to supplement the quantitative data and provide context.

Research Procedures - Before the study commenced, the research obtained approval from the Research and Development Coordinating Office (RDCO) of the university upon the endorsement of the dean of the College of Arts, Sciences, and Education (as the servicing college for this course). Once the approval was obtained, the researcher informed the selected students about the study and that their participation is purely voluntary. Consent forms were obtained from the students. As a preliminary activity prior to the gathering of the needed data, the students were asked to do freewriting on a particular academic topic of his/her choice. This was done to allow the students to enter into the writing process. Afterwards, they were asked to fill-out the qualitative survey instrument detailing the challenges they encountered from that experience of writing (or writing in general). Then, they were also asked to consider the interventions that they think can help them arrest or address, at least, these challenges. These became the sources of data for this study. Once the needed data were already available, the researcher did simple frequency to determine the dominant challenges and interventions listed by the participants. There was also provision of qualitative insights on these challenges and interventions, done through open coding, to supplement the numerical data. Finally, researcher analysis on policy recommendations in light of the findings as well as in relation to the curricular enhancement of the English 014 course is provided.

Ethical Considerations - Ethical oversight was observed in the duration of this study. The participants were thoroughly informed about the nature and purpose of this study as their consent was also primordially considered. To protect their identity, the qualitative insights provided as a supplement in the study are anonymized. Finally,

as a way to protect their data, these were stored in Microsoft Teams, the official learning management system of the university, in a two-factor authenticated laptop. Once the data were gathered, preliminary results on the dominant challenges and their proposed interventions were also shared to them for transparency.

4. Results and Discussion

The section below presents the data obtained from the open-ended survey questionnaire that was deployed to the research participants. It is important to note that, as this study only aims to provide baseline data on the challenges and proposed interventions on the side of the students, simple frequency is used to determine the dominant figures. Then, qualitative insights are provided as a supplement to the numeric data.

Table 1
Challenges of Undergraduate Students in Writing (N=140)

Challenges Noted by Undergraduate Students	Frequency of Tokens / Responses
Clarity and coherence	**56**
Organization of ideas	**44**
Word Choice / Appropriateness of words	**30**
Frequent grammar error	24
Writer's block	20
Limited vocabulary	15
Sentence structure	7
Consistency of tone and style	6
Idea generation	4
Total Number of Tokens	206

The total number of tokens/responses is more than the number of respondents as they were allowed to include more than one challenge. This gives a more nuanced understanding of the students' collective challenges in writing.

Some qualitative insights from the respondents are lifted below in relation to these challenges:

Respondent A: *"One of the challenges I encountered is that I have a problem organizing my thoughts and writing it down properly. I also have the issue of using the same words again and again and sometimes I get into situations that I find it hard to fit the vocabulary I use to people of a certain age."*

Respondent B: *"One of the challenges I encounter when writing is organizing my thoughts clearly and coherently. I often struggle with structuring my essays in a way that ensures a logical flow of ideas."*

Respondent C: *"I sometimes struggle with finding the right words or phrasing to express my ideas as clearly as I envision them, which can result in feeling stuck or frustrated during the drafting process."*

Respondent D: *"Making sense of the thoughts that is flowing when given a certain topic and having to use words to deliver my thoughts into writing. Redundancy."*

Based on the table, the dominant challenges noted by undergraduate students in relation to writing are clarity and coherence, organization of ideas, and word choice. Just by a mere look at these three dominant challenges, these are skills higher than grammar or sentence structure. In other words, again based on the findings, these undergraduate students need more help in terms of the process of writing itself—such as choosing the appropriate word choice, organizing ideas, and being clear and coherent. The most dominant challenge faced by undergraduate students is clarity and coherence. This finding is supported by the study of RahmtAllah (2020) who had the same finding. In his paper, he found out that EFL students—those who consider English as their foreign language—also faced considerable difficulty in producing coherent texts. The same can be said in this study, and by extension, this points to a greater fact that, even for students who consider English as their first language, also struggles to produce clear and coherent texts.

According to Khonamari et. al (2020), coherence, and by extension clarity, is difficult for students is thought

to occur because students lack the necessary linguistic skills and knowledge of L2. In other words, they have not mastered yet the request linguistic knowledge (such as vocabulary and grammar rules) required in the L2 which affects their ability to be coherent and clear. This, again, goes back to the previous assertion that writing requires the simultaneous application of writing skills. A related difficulty or challenge posed by undergraduate students is organization of ideas. This is echoed in the study done by Saprina, Rosyid, and Suryanti (2021) who dealt with undergraduate students as well in the context of them writing argumentative essays. Their study, similar to this one, found out that idea organization and development is thought to be difficult for undergraduate students. In particular, they mentioned that students found it difficult to construct thesis statements—central to being able to organize ideas—and combine sentences.

Finally, in the study of Thuy et. al (2022), they also found out of the same writing difficulty as that of this study—particularly in terms of word choice or the appropriateness of words. In their study, they noted that, among the reasons why word choice is difficult is that students are able to apply the word's meaning based on its context coupled with their limited vocabulary. The results of this study as well as the cited studies point to the fact that these three dominant challenges are not only true to foreign language learners but also to second language learners; and, across nationalities, the same skills are considered to be difficult or challenging.

Table 2
Proposed Interventions Based on these Challenges according to Undergraduate Students

Proposed Interventions Based on Identified Challenges	Frequency of Tokens / Responses
Feedback from peers and mentor/instructor	**51**
Input on the use of writing strategies such as mind maps, outlining strategies for pre-writing	**47**
Exposure to required language materials	**45**
Use or provision of Artificial Intelligence as assistive technology	15
Provision of practice writing exercises	19
Freewriting exercises	11
Proofreading and reviewing	10
Practice grammar exercises	6
Use of writing prompts	2
Setting achievable goals/dividing the task in chunks	2
Total Number of Tokens	208

The total number of tokens/responses is more than the number of respondents as they were allowed to include more than one proposed intervention. This gives a more nuanced understanding of the students' collective proposed intervention in writing.

Reproduced below are some qualitative insights from the respondents:

Respondent A*: "To address these difficulties, I believe pointing out or giving critique to my wordplay on my essays or any written work would be good enough."*

Respondent B: *"I believe I could benefit from more practice in outlining my essays before I start writing. This would help me organize my thoughts more effectively and ensure that each paragraph contributes to the overall argument."*

Respondent C: *"(I think it would be helpful for me to) ask for guidance, especially in word choice and grammar."*

Respondent D: *"I think I can be helped by giving me opinions and sharing some personal techniques how to not struggle in writing simple essays. "*

Respondent E: *"First, to better organize my thoughts, I could start by creating a detailed outline before I begin writing and I could practice adding more and exposing myself to different writing styles."*

Respondent F: *"I think I can be helped in terms of these difficulties as long as I practice or read books and also start writing anything that comes to mind such as music, poems, notes and more."*

The findings show that the top three proposed interventions indicated by the students are: feedback from peers and mentor, input on the use of writing strategies, and exposure to required language materials. In terms of feedback topping the proposed intervention, this is supported by the study of Hattie et. al (2021) who mentioned that feedback, while valuable, is also variable. In other words, as their study asserted, students are more drawn to what they call as "where to next?" feedback where teachers offer scaffolding in the conceptualization to the submission of the paper. In other words, feedback, as it is supposed to mean here, is not a one liner input in the paper. It must, therefore, point the students to their work. In terms of peer feedback, Wu and Schunn (2020) mentioned that it is effective, although construed to be associated with revisions, as it allows students to grow in their writing abilities.

In terms of input on the use of writing strategies, the same point is echoed by the study of Chen (2022) who indicated that integrating writing strategy instruction in the context of EFL learners prove to be effective as it brings positive impacts to students' strategic awareness and writing performance. Finally, the undergraduate students who were the respondents of this study also mentioned the need for them to be exposed to required language learning materials for them to hone their skills. While this is this very obvious, curators and implementers of a writing or language curriculum must also consciously factor this in—aware that students may be exposed so differently to the language materials which will facilitate their learning to write in the English language.

Policy Recommendations Based on the Findings of the Study

Tailor-fit and Context-sensitive Language / Writing Curriculum

The findings of this study imply that there must be not only a tailor-fit language or writing curriculum but, rather importantly, a context-sensitive one. Therefore, while the English 014 class is considered to be a General Education (GE) course, its nature and approach must be re-defined as an ESP-oriented course. In this way, not only are these challenges and proposed interventions are factored in, but generally, the curriculum is geared towards not only what is practical but also what is attuned to the context of the students. Having mentioned that, this tailor-fit and context sensitive language/writing curriculum must be an active mechanism such that teachers of this course must always consider primordially the inputs of the students in the design, implementation, and eventually evaluation of the course curriculum. To make it explicit, the inputs of students (in the form of the results of the needs analysis) must be articulated in the syllabus itself—as the document that shows the curriculum. In particular, these results must be reflected in the choice of topics, their sequence, the activities and the required assessments for these topics.

Periodic Conduct of Needs Analysis

In relation to the first policy recommendation, granting that the English 014 class is redesigned to be ESP-oriented, it is, therefore, important to make needs analysis a staple feature of the course—perhaps as an entry/diagnostic assessment. As such, the results of the periodic needs analysis done distinctly in each English 014 class are an exemplification of how the inputs of students are considered, as mentioned in the previous recommendation, in the design, implementation, and evaluation of the course curriculum. In other words, it is not a question of how the students enrolled in the class will be able to make an input on their context because the results of the needs assessment will show exactly that—their context. In addition, teachers must be given a retooling on how to conduct a needs analysis in order to maximize the data that might be fleshed out from the students.

Exit Assessment for Writing

The study asserts that, while needs analysis is central to making the English 014 class an ESP-oriented course, it is not enough. That is why, if the conduct of the needs analysis considered to be an entry assessment, it is also equally important to implement an exit assessment for writing vis-à-vis the results of the needs analysis. In other words, it is also very much significant to look into the extent of how much the students have mastered

the indicated writing skills as reflected in their collective needs or difficulties. The exit assessment for writing, then, becomes the point that ties the entire practice—the needs analysis, the design and implementation of curriculum and the achievement of set goals—together.

Implications for Teachers and Learners

To reiterate, this study aimed to provide baseline data by looking into the dominant challenges and proposed interventions that students have in relation to academic writing. The findings showed that there students struggle with clarity and coherence, organization of ideas, and word choice. Additionally, they noted that they can be best helped in the context of these challenges through feedback from the instructor, input on different writing strategies, and exposure to required language materials. These are important as these would imply the following:

➢ For language teachers, they must put premium on the context of the students in their design, selection, and implementation of a language or writing curriculum;

➢ It is also important to incorporate the findings of the study (such varied exercises on cohesion and coherence, drills and pre-writing writing activities, and exposure to language materials) in their syllabi ensuring that teaching-learning activities (TLAs) cover these equitably;

➢ Granting that students' contexts differ and vary, it is the role of the language teacher to meet them where they are and consider this in the implementation of the course;

➢ Finally, the study has emphasized on the value of feedaback; as such, language teachers, then, must devote time to provide substantial and constructive feedback to the students. This would allow the students to reflect on how they fallen short or progressed in writing.

On the side of the learners, the findings imply that:

➢ Writing requires practice especially within the broader context of second language learning;

➢ Exposure to language materials such as books is not limited to the confines of the classroom, particularly in the advent of technology;

➢ Finally, their ability to reflect on their own writing challenges and proposed interventions is a skill required of a second language learner.

5. Conclusions

The findings of the study showed that among the dominant challenges faced by tertiary students in terms of academic writing are clarity and coherence, organization of ideas, and word choice. In addition, in terms of interventions on how they think they can be best helped, they mentioned about the importance of feedback from the instructor, an input on different writing strategies such as outlining and mind maps, and finally, on the value of reading and exposure to required language materials. Both these challenges and interventions, as indicated by the students' responses, point to a targeted writing instruction geared towards the harnessing of these skills such as word choice, organization of ideas, and clarity and coherence. The interventions can also be used as a mechanism to concretize the harnessing of the above-mentioned skills in the classroom in the form of teaching-learning activities.

5.1 Recommendations

As venue for further studies relative to the topic considered for this study, the following recommendations are provided:

➢ It would be good to look into the errors committed by students in writing an academic paper following the Error Analysis Theory as these would reveal the extent of how much they have learned about

writing.

> As an offshoot to the above-mentioned recommendation, it is important that qualitative insights on the reasons for these errors must be factored, similarly, as these would also reveal nuances of how a second language learner learns writing.

> It is equally significant to look closely at each of the writing challenge/difficulty noted by the students as these are important as well in the conduct of the needs analysis.

> It is also interesting to consider targeted determination of challenges and interventions in academic writing vis-à-vis the research participants' respective (homogeneous) degree programs.

6. References

Aldabbus, S., & Almansouri, E. (2022). Academic writing difficulties encountered by university EFL learners. *British Journal of English Language Linguistics*, *10*(3), 1–11. https://doi.org/10.37745/bjel.2013/vol10n3111

Baharudin, F., Ramli, N. H. L., Habali, A. H. M., Azmi, A. A., & Rahmat, N. H. (2023). Process of Writing: The Challenges in writing skill among ESL Learners. *International Journal of Academic Research in Business and Social Sciences*, *13*(10). https://doi.org/10.6007/ijarbss/v13-i10/18649

Beare, K. (2019, February 5). *Why is writing more difficult than speaking?* . Retrieved from Thoughtco: https://www.thoughtco.com/why-writing-more-difficult-than-speaking-1210489

Bulqiyah, S., Mahbub, M. A., & Nugraheni, D. A. (2021). Investigating writing difficulties in essay writing: Tertiary students' perspectives. *English Language Teaching Educational Journal*, *4*(1), 61. https://doi.org/10.12928/eltej.v4i1.2371

Chen, A. (2022). The Effects of Writing Strategy instruction on EFL learners' writing Development. *English Language Teaching*, *15*(3), 29. https://doi.org/10.5539/elt.v15n3p29

Gorospe, J. D., & Rayton, M. I. C. (2022). "I can't write": problems, factors, and recommendations. *Technium Social Sciences Journal*, *31*, 280–288. https://doi.org/10.47577/tssj.v31i1.6433

Hattie, J., Crivelli, J., Van Gompel, K., West-Smith, P., & Wike, K. (2021). Feedback That Leads to Improvement in Student Essays: Testing the Hypothesis that "Where to Next" Feedback is Most Powerful. *Frontiers in Education*, *6*. https://doi.org/10.3389/feduc.2021.645758

Hidayati, L. & Meisani, D.R. (2023). The Needs Analysis of English for Specific Purposes: A Study in an Indonesian Medical School. *Indonesian Journal of English Language Teaching and Applied Linguistics, 7*(2), 465-479. http://dx.doi.org/10.210 93/ijeltal.v7i2.1424

Hyland, K. (2022). English for specific purposes: What is it and where is it taking us? *ESP Today*, *10*(2), 202–220. https://doi.org/10.18485/esptoday.2022.10.2.1

Mesa, J. (2023, May 25). *The IPP (Ignatian Pedagogical Paradigm) and its Relevance Today Celebrating 30 years of the IPP - Educate Magis*. https://www.educatemagis.org/global-stories/the-ipp-ignatian-pedagogical-paradigm-and-its-relevance-today-celebrating-30-years-of-the-ipp/

Kaya, S. (2021). From needs analysis to development of a vocational English language curriculum: A practical guide for practitioners. *Journal of Pedagogical Research*, *5*(1), 154–171. https://doi.org/10.33902/jpr.2021167471

Khonamari, F., Hashemi, E., Pavlikova, M., & Petrasova, B. (2021). Coherence Problems of EFL Students' writing in light of the Gricean Maxims. Journal of Education Culture and Society, 12(2), 294–313. https://doi.org/10.15503/jecs2021.2.294.313

RahmtAllah, E. a. E. (2020). EFL Students' coherence Skill in writing: A case study of third year students of Bachelors in English Language. *English Language Teaching*, *13*(8), 120. https://doi.org/10.5539/elt.v13n8p120

Salvador, J. (2024). Writing competence of first year college students at a state university. *JPAIR*

Multidisciplinary Research, *56*(1), 102–120. https://doi.org/10.7719/jpair.v56i1.888

Saprina, C. M., Rosyid, A., & Suryanti, Y. (2021). Difficulties in developing idea encountered by students in writing argumentative essay. *Journal of English Teaching and Linguistics Studies (JET Li)*, *3*(1), 48–54. https://doi.org/10.55215/jetli.v3i1.3419

Sa'adan, N., Noorezam, M., Taib, S. A., Jenal, N., & Yusuf, M. H. (2024). A Study of Writing Difficulties and Writing Stages among Undergraduates. *International Journal of Academic Research in Business and Social Sciences*, *14*(7). https://doi.org/10.6007/ijarbss/v14-i7/21988

Sani, A., Badawi, U. S., Waziri, I. A., & Zahradeen, N. T., (2020). Needs analysis: Strategies for language teachers. *International Journal of Advanced Academic Research*, *6*(2), 46-55.

Sharmin, S., (2023). A Study On Need Analysis On English Language Needs Of Undergraduate Students In Bangladesh, *Journal of Language and Linguistic Studies, 19*(4), 10-31.

Thuy, N. T. T., Anh, H. P. T., Ngan, N. T. T., Vy, N. T. T., & Anh, N. T. V. (2022). Difficulties with word choice in academic writing and solutions: a research on english-majored students at can tho university, vietnam. *European Journal of English Language Teaching*, *7*(6). https://doi.org/10.46827/ejel.v7i6.4543

Wu, Y., & Schunn, C. D. (2020). The effects of providing and receiving peer feedback on writing performance and learning of secondary school students. *American Educational Research Journal*, *58*(3), 492–526. https://doi.org/10.3102/0002831220945266

The acquisitional challenges of adjective order among non-native learners of English

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Abstract

This study investigates how non-native English users arrange English adjectives, especially in languages with different Noun Phrase (hence NP) syntax profiles. It examines the challenges involved in L2 acquisition of adjectives and explores how L1 theoretical generalization (linguistic and psycholinguistic models) apply to L2 acquisition. Using survey and interview as instruments, the study collected data from 37 respondents which include 5 native speakers of English (as control group), and 32 non-native users of English who are Hindi (n=7), Nepali (n=7), Yoruba (n=9), and Igbo (n=9). Findings reveal that semantically close adjectives are difficult to acquire when combined (e.g., participle and color adjectives). Therefore, acquisition is easier when semantic categories are distant from each other (e.g., quality and nationality adjectives). Secondly, adjectives that have no sense of referent in learners' L1 are often difficult to acquire. Negative transfer is often evident in the ordering patterns among Igbo L2 users. The study argues that the proposed orderings by researchers and linguists on adjectival patterns are not intuitively alike to descriptive outcomes of the native speakers. Thus, adjectival ordering could be considered more of a psycholinguistic phenomenon on one part and a linguistic phenomenon on the other part. This study posits that while curriculum planners and L2 teachers might propose models to help learners acquire adjectival order they should allow for flexibility in the approach. This would help learners to learn the specific rules to determine the syntax of a language and allow their psychology to participate in linguistic permutations.

Keywords: adjective ordering, acquisitional challenges, ESL, NP syntax

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1. Introduction

Adjectives vary cross-linguistically, based on their positioning and ordering arrangement (Alotaibi, 2017). For instance, attributive adjectives in the English language are prenominal, that is, they are positioned before the head noun within the noun phrase (NP). Furthermore, according to Rasato (2013), native speakers' intuitions of adjectival ordering in English and corpus research have offered evidence that the order of attributive adjectives within the NP is subject to a fixed order. For example, a native speaker of English would produce **(a)** A large blue box; and **(b)** A lovely white German car, instead of **(c)** ?A blue large box; and **(d)** ?A white lovely German car. This indicates the ordering of multiple adjectives in English follows specific patterns. It could be noted that native speakers of English arrange adjectives intuitively without conscious conformity to some rule. It would, therefore, be interesting to consider how non-native users of English arrange English adjectives when they occur in multiples in the NP especially for speakers whose L1 is one with a language with a different NP syntax profile.

This study focuses on four categories of L2 users namely: Yoruba learners, Igbo Learners, Hindi Learners, and Nepali learners of English. These speakers were queried to see how they acquire adjectival order in English, to investigate the patterns, challenges, and the possibility of cross-linguistic influence. This study focuses on these languages because they exist in language communities where English language exists as a second language. There are two specific features that are of relevance to English adjectives in this study. First, there is a strong tendency for attributive adjectives in English to be prenominal e.g. *"a big red car"*. Hindi and Nepali are two other languages that possess the same prenominal feature as shown below:

English Example:	I see (a big red **car).**
Hindi:	mujhe ek badee laal **kaar** dikhaee detee hai
	I (**a** *big red car)* see
Nepali:	Ma e'uta thulo rato kara dekhchu
	I (**a** *big red car*) see

Word order in Hindi (Subject-Object-Verb) and Nepali (Subject-Object-Verb) shows that neither language shares the same features with English language (Subject-Verb-Object) at the sentence level. However, in Hindi and Nepali, attributive adjectives are largely prenominal. Examples above show some sort of similarities in the positioning and order of adjectives in Hindi and Nepali languages in relation to English. Adjectives in the three languages are placed before the head noun. Also, the preferred order of adjectives in Hindi and Nepali with regards to 'big' and 'red' shares resemblance with English. However, native speakers of Hindi and Nepali can vary the order of the adjectives because the structure of adjectival order in both languages is not fixed (Sarah, 2008). According to Sarah (2008), many speakers of Nepali and Hindi would say "a yellow dirty dog" in their L1 translation, while an American English speaker would instinctively re-order the adjectives as "a dirty yellow dog".

On the other hand, the Yoruba language is largely postnominal while the Igbo language has variable patterns of either pre- or post- nominal feature as demonstrated below:

English Structure:	I see (*a* big red ***car***).
Yoruba:	Mo ri *oko* pupa titobi kan
	I see (car red big a)

| **Igbo:** | M na-ahu igbe ojii na-adoro adoro |
| | I   see   (box black an attractive) |

| **Igbo:** | m na-hụrụ   nnukwu *ugbọ* ala uhie. |
| | I   see   (big   car   a   red) |

Comparisons of word order in the English language (Subject-Verb-Object) with Yoruba (Subject-Verb-Object) and Igbo (Subject-Verb-Object) show that Yoruba and Igbo share the same word order with English at the sentence level (Mathew, 2013). However, the positioning of adjectives within the NP in both languages is done differently. According to Adelabu (2014), Yoruba adjectives functioning within the NPs are postnominal in nature, that is, they occur after the head noun. Also, Igbo adjectives are largely postnominal. But sometimes, they appear concurrently before and after the head which they modify. This is often used to achieve tonal changes in the head nouns (Ward, 1936, as cited in Green & Igwe, 1963). Adjectival ordering in Yoruba and Igbo is different from English because they do not follow a strict order like English. For instance, it is acceptable by Yoruba speakers to say 'Oko *titobi pupa* kan" (a big red car) or "Oko *pupa titobi* kan" (a red big car); whereas 'a big red car' is specifically acceptable to a native speaker of English, unless a speaker wants to mark a unique expression. Although native speakers of Yoruba and Igbo have a preferred order in communication, it does not make a deviant order unacceptable.

This study investigates how second language users of English, representing these four languages, pattern adjective-noun orders in English.

1.1 Research Questions

To achieve the objectives of this study, the following research questions have been formulated.

➢ What pattern(s) of multiple adjectival order of English do L2 users of English whose L1 is either Hindi, Igbo, Nepali, or Yoruba produce?

➢ What are the challenges involved in acquiring prenominal multiple-adjective order in English by L2 users?

➢ How does the difference in the adjectival structures of participants' L1 compare with the production of English adjectives?

2. Literature Review

Prior studies, such as those by Quirk et al. (1985) and Scontras (2022), have proposed explanations for adjectival ordering preferences in the L1. These involved linguistic and/or psycholinguistic approaches. For instance, some of the principles associated with the psycholinguistic standpoint is that adjectives that have positive meanings or good news appear before negative ones (hence; "a powerful dangerous medication" and "an attractive little flower"). The linguistic approach which views adjectives as more of semantic properties contains principles that suggest that adjectives which share similar characteristics with a noun (nouny) (or highly objective adjectives) should be closer to head noun than the ones whose identity is less-nouny and subjective. These principles are based on L1 acquisition of adjectives.

One approach to the analysis of adjective ordering is through the grouping of adjectives into semantic categories. These categories include *opinion, observation, quality, evaluation, measurement, value, physical states, size, length, shape, age, participle, color, origin (or nationality), material* etc. In fact, some scholars have outlined subcategories for some of the semantic categories. For example, Frank (1972) expanded 'physical states' category to include 'size➢ shape ➢ age ➢ color'. Also, Scott (2002) expanded the 'size' category to

include 'length ＞ height ＞ width ＞ weight'. This study considers the semantic categories provided by Quirk et al. (1985) as the basis for grouping adjectives. This means that identification or grouping of adjectives would be based on "quality, size, shape, age, participle, color, material and provenance/nationality". The reason is that Quirk's et al. (1985) model encompasses almost every other category highlighted by other scholars. In fact, Quirk et al. (1985) model is among the few models that integrate participle (or derived) adjectives as a possibility among others. Quirk and Greenbaum's model is popular among scholars (e.g., Jung 2008, Scontras, Degen, and Goodman 2017, Lee 2018, Scontras, 2022 etc.,) and it is also widely used in the school curriculum of countries (like Nigeria) where English exists as a second language. This is demonstrated by Jung's (2008) empirical study where he found that the English order seems to lend support to Quirk's et al. principle of subjectivity/objectivity. An outline of Quirk and Greenbaum's categories of adjectives is presented with examples.

i. **Quality:** lovely, attractive, poor

ii. **Size:** big, small, tall

iii. **Shape:** triangle, square, rectangular

iv. **Age**: old, new, young

v. **Participle/derived**: broken, roasted, damaged.

vi. **Color**: Red, purple, blue

vii. **Material**: silver, leather, wooden

viii. **Provenance/origin/nationality**: American, Swedish, Chinese

These labels were used to represent the categories of adjectives produced by respondents in this study. For instance, 'attractive' was categorized as 'quality' adjective rather than 'observation' or 'opinion'. This study considers these L1 approaches and investigates the extent to which the L1 theoretical generalizations apply to second language acquisition.

Looking at few existing studies on this subject, Jung (2008) investigated the similarities and differences of adjective ordering in English and Korean languages and how Korean EFL learners of English acquire the adjectives. A contrastive analysis showed the order of English adjectives as *size, opinion, age, color, shape, material,* and *origin*. However, the Korean order was *condition, age, opinion, color, size, shape, material* and *origin*. The study showed the relative order of the Korean EFL learners of English to be *age, size, opinion, shape, condition, color, origin*, and *material*, with the exceptions of the order of *condition* coming before *age* and that of *size* being the same position as *condition*. The study found that some adjective combinations were similar to both English and Korean; some were different from either Korean or English while others were different from both English and Korean. Also, while Jung's study only focused on Korean and Korean EFL learners, this study focuses on ESL learners who are native speakers of Yoruba/Igbo/Hindi//Nepali. This study investigates how learners demonstrate patterns of adjectives across these language categories.

Sarah (2008) studied prenominal adjective ordering in English and focused on how it correlates with how Asian ESL students grasp their English grammar. The Nepali ESL learners produced the structure of '*size ＞color ＞ opinion'* while Hindi ESL produced '*size ＞ condition ＞ origin'* patterning. The results indicate that geography and linguistic background do not factor into the choices L2 learners of English make in pre-nominal adjective ordering. The present study is similar to this study in a couple ways. First, ESL learners of English from Nepal and India are also participants in this study. Secondly, the present study is also investigating the pattern of prenominal English adjectival acquired by the participants; however, unlike Sarah (2008), the present study is limited to only two adjectival sequences. Also, this study explores possible challenges associated with acquisitional patterns.

Anderson (2008) considers some groups of L2 learners in the development of their acquisition of adjective

position in French. The study focused on word order discrepancies among languages with different structures. The study examined whether English learners of French as L2 arrive at the same positioning. The result revealed that second language learners of French, like native French speakers, acquire the postnominal adjectives. The study stated that acquisition followed a gradual process, and it does not occur early. The study also highlighted that acquisition of both adjectical positions (prenominal and postnominal) in French adjectives did not emerge until at the postgraduate level. This study is similar to the present study in all areas except that it does not assess the acquisitional outcomes of participants based on their proficiency.

The present study explores issues associated with acquisitional patterns and challenges in ordering. This is because L2 acquisition of English among these learners appears later after L1 acquisition due to the status of English in countries where these languages are spoken. The few L2 studies on adjective placement report that the target order can be acquired, with a potential influence of the first language (L1) initially. Bhela's (1999) stated that the way learners used their L1 structures to help them form their L2 texts indicates a direct influence of the L1 on L2. Alotaibi (2017) found that one of the most prominent causes of errors found in this area is assumed to be the linguistic differences between the adjective position and order. Connolly (2020) showed that there is a strong influence of native language on English language learning, as students fall back on the rules of their first language when they do not know the rules of the second language. Alotaibi (2017) also demonstrated the notion of L1 transfer when he mentioned how Kuwaiti learners were unable to produce prenominal adjectives because adjectives in Kuwaiti Arabic (KA) is largely postnominal. In sum, the issues associated with language transfer describing whether their L1 has a negative or positive impact on the learning of prenominal adjective ordering in English are discussed further in the study.

3. Methodology

The participants for the study comprised 32 people (7 Hindi, 7 Nepali, 9 Yoruba, and 9 Igbo) plus 5 in a control group who were native English speakers. Convenience sampling was used, with the main criterion for recruiting participants being their first language. The control group data were collected from 5 native English speakers who were students at Southern Illinois University Edwardsville (SIUE). Other participants were adult learners above the age of 18 whose first language are any of Hindi, Nepali, Igbo and Yoruba. However, those who are considered as L2 users of these languages were excluded from the study. The participants' home countries were Nigeria, Nepal, or India, where English exists as a second language, and it is recognized as an official L1 in India and Nigeria (Yilmaz & Schmid, 2015). Most of the participants were within the intermediate high and advanced level of proficiency. Each participant consented to participate in the study by reading the informed consent form provided to them by the researcher approved by the university's Institutional Review Board (IRB). Participants who did not adhere to the research protocol (such as agreeing to sign the consent form) were excluded from the research.

They were grouped into their L1 categories. One of the greatest limitations for this study was accessing relevant information on the specific order or patterning of adjectives in Hindi and Nepali languages. The available information suggests that both languages have no specific or fixed order (Sarah, 2008). Nepali and Hindi respondents were able to confirm this during the interview. This study used qualitative or non-inferential quantitative methods (raw counts) to examine decisions made and data offered by speakers. The output was analyzed based on Quirk's (1985) principle that provides the order of "quality, size, shape, age, participle, color, material and provenance/nationality".

4. Results

Results show that there is a great variation in the outcomes of L2 learners of English with regard to adjectival ordering in English, although there are a few cases where everyone agreeably made a unanimous choice. A typical example of this is the 'age + material' order. Also, there are cases where all the members of the control group completely preferred the same order.

RQ 1: What pattern of adjectival order of English do L2 learners of English whose L1 is either Hindi, Igbo, Nepali, or Yoruba produce?

The order that was generated from each of the participants are as follows.

Yoruba L2: -Age≻size≻participle≻quality≻shape≻color≻nationality≻material≻HEAD

Igbo L2:　　-Age≻participle≻size-color≻quality≻shape≻nationality≻material≻HEAD

Hindi L2: -Participle≻age≻quality≻size≻shape≻color≻material≻nationality≻HEAD

Nepali L2: -Size≻quality≻participle≻color≻age≻shape≻nationality≻material≻HEAD

The ordering patterns among L2 learners of each language group shows that some semantic categories are closer to the headword than others. For instance, the proximity of the adjectives of 'material and nationality' to the headword is a feature found among all the participants although with a slightly different order. All the participants produced the 'nationality + material' pattern with respect to '*this is an American plastic cup*', except Hindi participants who exhibited the 'material + nationality' pattern (*this is a plastic American cup*). These two categories are often realized by nominal adjectives. The fact that they share the same properties with the head-noun helps to argue why they are closer to the head. Apart from 'nationality and material', 'color' and 'shape' adjectives are immediately placed after these two semantic categories. This is presented below:

Yoruba L2: ≻≻≻**shape**≻**color**≻nationality≻material≻HEAD

Hindi L2≻≻≻≻≻**shape**≻**color**≻material≻nationality ≻HEAD

Igbo L2: ≻≻≻≻≻≻**shape**≻nationality≻material≻HEAD

Nepali L2: ≻≻≻≻≻ **shape**≻nationality≻material≻HEAD

This shows that Yoruba and Hindi L2 learners of English share somewhat related adjectival patterns as they approach the headword with an inverted order in the last two sequences. It also demonstrates that Igbo and Nepali L2 learners of English share the same adjectival pattern as they move closer to the headword. The study identifies parallel ordering features with adjectives of *shape, color, nationality* and *material* across the four language groups. The fact that these categories are closer to the headword is a feature common to each L1 category.

Specificity of certain ordering was noticeable in participants' descriptions. For instance, 'color + nationality' ordering ('*brown German*') elicited fair representation (Yoruba 8/9, Igbo 8/9, Hindi 5/7, Nepali 6/7, Native Speaker 5/5) in "*this is a brown German dog*". The high level of representation associated with this order might be connected to the fact that the adjectives of nationality like 'German' are 'nouny' because they behave more like nouns. Ordering involving such (nominal) adjectives are less challenging to acquire by L2 learners of English because adjectives with the closest proximity to the noun tends to possess similar qualities with it (Posner 1986, cited in Lee, 2018). One interesting thing about the ordering pattern elicited by L2 learners of English with respect to adjectives that are closer to the noun is that they demonstrate more similarities to what the members of the control group exhibited. This is revealed below.

Control Group: ≻≻color≻nationality≻material ≻HEAD

Yoruba L2: ≻≻≻≻shape≻color≻nationality≻material≻HEAD

Hindi L2: ≻≻≻≻shape≻color≻material≻nationality≻ HEAD

Igbo L2: ≻≻≻≻≻shape≻nationality≻material≻HEAD

Nepali L2: ≻≻≻≻≻shape≻nationality≻material≻HEAD

While the outcome of the last three features in Yoruba L2 learners entirely correlate with the outcome of the control group, the Hindi L2 category takes the same route with an inverted ordering for 'nationality + material' sequencing. For Igbo and Nepali L2 learners, the last two features (nationality + material) match the order of native speakers of English. This informs that there is a level of agreement in some parts of L2 learners acquisitional order of adjectives and the native speaker's order.

The pattern of adjectives acquired by L2 learners of English with respect to other semantic categories that are distant from the head-noun involves some sorts of complexities. The ordering system is presented below.

Yoruba L2:   -Age≻size≻participle≻quality ≻≻≻≻≻≻HEAD

Igbo L2   -Age≻participle≻size≻color--quality≻≻≻≻HEAD

Hindi L2:   -Participle≻age≻quality≻size ≻≻≻≻≻≻≻HEAD

Nepali L2:   Size≻quality≻participle≻color≻Age≻≻≻≻HEAD

These sets of semantic categories represent adjectives that are far from the head nouns. A careful look at these patterns shows that there is no significant account of similarities that an L2 category shares with the other. Yoruba and Igbo L2 learners of English place the adjectives of 'age' and 'quality' as the first and last categories respectively. Whereas 'age' and 'quality' adjectives are located differently in Hindi and Nepali ordering.

According to Quirk et al. (1985), 'quality' tends to be the most subjective and distant adjective from the head noun. The study demonstrates how some of the outcomes represented by Yoruba L2 learners of English (with respect to quality adjectives) match the native speakers' order while others do not. For Yoruba participants, the following combinations provided unanimous patterns: 'quality + material 7/9; 'quality + shape 8/9, 'quality + nationality 8/9'; while others ('quality + size 4/9', 'quality + age 3/9', 'quality + participle 5/9; and 'quality + color 1/9') have varying pattern. It follows that, adjectives of 'shape' nationality' and material' are not semantically close to the 'quality' adjectives. This might explain why participants exhibit fewer varying patterns whenever they are combined with 'quality' adjective. A majority of the Igbo participants produced similar patterns as native speakers of English in some adjectives involving 'quality'; e.g., 'quality + shape 7/9', 'quality + participle 7/9', 'quality + material 7/9', 'quality + nationality 7/9'. In most of the cases where the Igbo participants display the same order with the native speakers of English, the study identified that there are some similarities between what they are doing in L2 (English) and what they do in their L1 (Igbo). Other cases where there is variability might be due to the fact that adjectival features of Igbo language consist of a great deal of variation. Adjectival patterns of Hindi and Nepali participants with respect to 'quality', 'size', age, 'participle' and 'color indicate different ordering structures in both languages. In other words, they share no similarities with respect to ordering of these categories.

This study proposed that one significant factor that determines the ordering patterns of subjective adjectives, as revealed by these outcomes, is the factor of psychology. Ordering of subjective adjectives tends to be dependent on what is going on in the mind of the speaker. It might also be the contextual factors associated with the objects being described and speakers' experiences about the objects. This is further explained in subsequent sections.

RQ 2: What are the challenges involved in acquiring prenominal adjective order in English by L2 learners?

The overall observation of this study is that the further away the adjectives are from the head noun, the more challenging the ordering becomes.

Ordering of Semantically Close Adjectives is Challenging

L2 participants in this study find it almost challenging to exhibit a specific pattern for adjectives that are

close to each other based on their semantic categories. Semantic closeness refers to the level of interaction that semantic categories keep with one another based on how they increase in their proximity to the noun they modify. Based on Quirk, Greenbaum and Svartvik's categorical model of adjectives, the proximity of these categories is as follows.

«---»

More Subjective ---Less subjective ---less objective--------more objective

«---»

Quality> size > shape > age > participle >>> color > material > nationality

«---»

This study found that whenever two close categories are combined, ordering becomes a little challenging. Examples below shows the representation of adjectival groups that are somewhat closely related.

Participle-color: *This is a damaged red car*	**Age-color:** This is a **young dark** lady.
Yoruba L2 Learners: 5/9	Yoruba L2 Learners: 5/9
Igbo L2 Learners: 3/9	Igbo L2 Learners: 5/9
Hindi L2 Learners: 4/7	Hindi L2 Learners: 4/7
Nepali L2 Learners: 5/7,	Nepali L2 Learners: 2/7,
Native Speakers: 2/5	Native Speakers: 2/5
Color- Material: This is a **blue woolen** tie.	**Material- Nationality:** *This is a plastic American cup*'
Yoruba L2 Learners: 4/9	Yoruba L2 Learners: 3/9
Igbo L2 Learners: 2/9	Igbo L2 Learners: 2/9
Hindi L2 Learners: 5/7	Hindi L2 Learners: 4/7
Nepali L2 Learners: 3/7,	Nepali L2 Learners: 2/7,
Native Speakers: 2/5	Native Speakers: 2/5

The study observed that nominal adjectives that share close identity with the head noun are positioned closer to it. For instance, in 'this is a plastic American cup', although 'plastic' is a 'material' adjective and it ought to occur before 'nationality' (according to Quirk and Greenbaum and Svartvik's proposed order), yet 'plastic' tends to have more of the same property as the head (cup) being a noun. In other words, 'plastic' can function as an appositive word to the head. It is possible to say, 'an American plastic' to still refer to an object like cup, but when we say, 'a plastic American', we tend to lose the sense of referent. The sense of referent is 'human' not object like 'cup' and the choice of 'plastic' does not even collocate with 'American' as an entity being described. Also, native speakers of English would prefer to say, 'an American leather bag' to saying, 'a leather American bag'.

Nominal adjectives are adjectives that possess both features of a noun and an adjective. For example, 'plastic' and 'American' in 'this is a plastic American cup'. Such adjectives often fall under the categories of 'material' and 'nationality'. The coexistence of both semantic classes as modifiers is often challenging.

Material and Nationality: 'this is *a plastic American cup*'

Yoruba L2 Learners: 3/9

Igbo L2 Learners: 2/9

Hindi L2 Learners: 4/7

Nepali L2 Learners: 2/7,

Native Speakers: 2/5

The example above shows that the co-existence of adjectives of *'nationality'* and *'material'* triggers varying patterns among L2 learners. In fact, the control group (native speakers of English) also demonstrates variation in their representation. If the native speakers do not have firm intuition about a specific pattern or order, one couldn't have expected L2 learners to possess such quality. Therefore, the ordering difficulty associated with nominal adjectives cannot be strictly attributed to L2 acquisitional challenge since native speakers of English are also victim of the same phenomenon. This complexity is associated with the fact that it is difficult to determine which item has more nominal features than the other. The data also shows that native speakers of English would rather prefer to say, 'an *American leather* bag' to 'a *leather American* bag'. The overall observation of this study with regards to this is that adjectival nominal that shares same identity with the head nouns has higher proximity to the head noun.

Difficulties with Adjectives that have no Sense of Referent in Learners' L1

Dealing with adjectives that have no sense of referent in subjects' L1 also poses challenges to acquisition. For instance, the poor representation of *'oblong'* (a shape adjective) in the subjects' L1 poses some acquisition challenges; as this is represented as *'egg-like'* in Yoruba, and *'rectangular'* in Hindi and Nepali. The word is coded structurally not as an adjective, but as some other part of speech.

Shape + Age: *She has an oblong young face.*

Yoruba L2 Learners: 4/9

Igbo L2 Learners: 1/9

Hindi L2 Learners: 2/7

Nepali L2 Learners: 1/7,

Native Speakers: 0/5

The word 'oblong' is infrequent in the English lexicon. The word 'oblong' does not appear to be a frequent vocabulary item for native speakers of English. Shapes like 'round', 'square', 'triangular' etc., tend to have more frequency compared to 'oblong' which ordinarily would not be used by a native speaker. This situation also affects acquisition by L2 learners because the word 'oblong' has no sense of referent in subjects' L1, thus posing challenges to acquisition. *'Oblong'* is represented as *'egg-like'* in Yoruba, and *'rectangular'* in Hindi and Nepali. It can be said that the cross-semantic identification or representation of English adjectives is crucial to acquiring the target order by L2 learners. Words that do not have a similar referent in another language would not be properly represented by L2 learners.

The study also discovered that sometimes, some adjectives are phrasal in participants' L1. For example, "sad" is not a single word in Nepali. It has a phrasal representation which is "sadness touches me/him/her/you", or else it's expressed by a different word "painful/pain". Also, adjectives of 'nationality' in Yoruba and Igbo are sometimes represented as a prepositional phrase. They are not often realized as a single word since those words are borrowed into the lexicon of their language. For instance, 'an Indian song' would be represented in Yoruba as '*orin ti Ilu India*' that is 'a song *from India'*. This is another possible feature that possess challenges to L2 acquisition of English adjectives.

5.   Discussion of Findings

The study posits that Hindi and Yoruba L2 learners of English tend to generate an ordering system similar to the native speakers of English. The study shows that Yoruba and Hindi participants provided an order more closely resembling the TL than the Nepali and Igbo. This is not specifically linked to the factor of L1

interference because the phenomenon of L1 transfer is evident in virtually all participants across the four L1 categories. The few L2 studies on adjective placement report that the target order can be acquired, with a potential influence of the first language (L1). Mostly, transfer has aided most of the participants to acquire English adjectives except for Igbo where the negative effect of transfer is evident. Ordering could be constrained due to closeness of semantic categories as there is a possibility of variation when two adjectives that are semantically close co-exist. It could also be challenging when participle (or derived) adjectives are involved in the order. Also, when there is no sense of reference in the L1 of the user with respect to the word being described, ordering might be challenging.

Generally, this study has demonstrated that syntactic ordering system in the grammar of a language can be influenced by not only syntactic factors but also semantics and pragmatics. This has caused adjectival ordering to be a complex and not entirely predictable. The study has demonstrated that L2 learners of English approach or acquire English adjectives differently irrespective of the differences or similarities in their L1. For instance, the study earlier predicted that Nepali and Hindi participants might have similar approach to English adjectives. But the results in this study proved otherwise as the study made it clear that Yoruba and Hindi participants had similar approach to adjectival ordering which resulted to them having patterns that were similar to the target order. This is not different from Sarah's (2008) report, who expected Nepali and Hindi learners to have similar approach to adjectival order but later found out that Nepali and Chinese shared similar pattern while Hindi and Korean EFL learners had a different approach. This suggests that positioning of adjectives within the NP is not a factor that determines acquisition of adjectives irrespective of whether it correlates with the target language or not. However, this does not discard the evidence of transfer in the study, as learners might be transferring the preferred order in their L1 into L2. This, in many cases, aided them in acquiring the target order. In fact, Yoruba learners of English have exemplified this despite having an alternate positioning with English adjectives. The study identified instances where participants might have transferred patterns of adjectives with a postnominal architecture in Yoruba/Igbo to complement their target ordering outcomes in the target language which has a prenominal feature.

Findings in this study have semblance with Jung (2008). Both studies show some level of similarity in the behaviour of L2 learners of English with respect to their orderings of English adjectives. For instance, Jung (2008) found that Korean L2 learners of English came up with a pattern that shares similar result with the findings in the present study especially with the ordering of semantic categories that are closer to the head nouns. This is reflected below:

Korean L2: -age> size> opinion> shape > condition > color > origin > material >HEAD

Yoruba L2: -age>size>participle>quality>shape>color>nationality>material>HEAD

Igbo L2: -age>participle>size>color>quality>shape>nationality>material>HEAD

Hindi L2: -participle>age>quality>size>shape>color>material>nationality>HEAD

Nepali L2: -size>quality>participle>color>age>shape>nationality>material>HEAD

6. Conclusion

This study has also demonstrated that acquisition of adjectival order could be dependent on some extralinguistic factors some of which could be psychological, and context based. Results of findings have exhibited support for the proposal that adjectival ordering is dependent on what goes on in the mind of the learners as well as the context that necessitates the ordering which could prime the learners. While adjectives with closer proximity to the head nouns are affected by linguistic factors, adjectives with greater distance from the head noun are patterned based on complex/ extralinguistic factors. This demonstrates that acquisition of syntactic patterns by L2 learners of English might be susceptible to the level of awareness of learners about certain phenomena. Learners' experiences, practices, and situational shared knowledge about life events are crucial factors that shape the mind construct.

With respect to how the L1 theoretical approaches can be used to determine adjectival ordering in L2 acquisition, the study identified two linguistic approaches that carry more explanatory power for second language acquisition. These approaches are Posner's 'nouniness' principle and Quirk's et al., principle of 'subjective/objective' polarity. Curriculum planners, researchers, textbooks designers, and classroom teachers might want to harness these two approaches to explain how adjectives are ordered. This would make adjectival order less challenging for students and, it will demystify the dire need to memorise the patterns/rules. Learners' ability to identify the semantic class of an adjective would be the most important challenge task. Once learners understand and can independently group adjectives into semantic categories of 'quality, size, shape, color, etc.,' then ordering would be easier since they would have been taught ordering preference based on the principles of 'nouniness' and 'subjectivity'.

6.1 Implications and Recommendations

This finding might help researchers and curriculum planners to acknowledge the dependence of adjectival ordering on some linguistic factors, possible L1 influence and the circumstance or situation that necessitates the ordering. However, this study maintains that while curriculum planners might propose models to help learners acquire adjectival order (as presented by the British Council, WAEC and Quirk et al. etc.), they should not try to make their materials too rigid. This would help learners to learn the specific rules to determine the syntax of a language and allow their cognition to participate in linguistic permutations. This study suggests a couple of pathways to improve upon similar research in future. First, a test-retest reliability measure can be introduced in the data collection method. This is a measure of reliability where participants would have to take the same test multiple times. An assessment and comparison of these test samples would help to validate and actualize corresponding patterns elicited by each of the participants in the study. Also, it would be advisable for further researchers to adopt a real-time conversational approach as the method of collecting data for this type of research instead of asking participants to describe pictures filled with properties that can enforce some sorts of descriptions on them. Instead, participants can be engaged in naturally occurring discourses that would elicit real ordering patterns. This might appear to be a more challenging methodology, but it could yield better results.

Also, subsequent research may want to increase their population size for the purpose of data collection to a level that it would accommodate a larger representation of each language group. It would have provided a better opportunity for a more robust statistical analysis of data to help identify data trends and patterns. This would achieve a better understanding of various aspects of the data, as well as generalizing potential/reliable findings. This study also recommends that learners and subsequent researchers might want to collect data from participants who did not grow up learning English, especially their own indigenized variety such as Indian or Nigerian English and can be fully considered as learners of English during the data collection process, as opposed to people using nativized varieties of English.

7. References

Adelabu, B. (2014). A contrastive analysis of adjectives in English and Yoruba. *International Journal of Education and Research, 2*(4), 1–16. http://www.ijern.com

Alotaibi, M. A. (2017). On the acquisition of prenominal adjective order by Kuwaiti EFL learners. *Advances in Language and Literary Studies, 8*(1), 1–8. https://doi.org/10.7575/alls.v8n1p1

Anderson, B. (2008). Forms of evidence and grammatical development in the acquisition of adjective position in L2 French. *Journal of Second Language Acquisition, 17*(7), 1–29. https://doi.org/10.1017/S0272263108080017

Bhela, B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage. *International Education Journal, 1*(1), 22–31. Retrieved February 8, 2012, from http://ehlt.flinders.edu.au/education/iej/articles/v1n1/bhela/bhela.pdf

Connolly, A. J. (2020). Adjective-noun order: An error analysis of Columbian learners of English. *Gist Education and Learning Research Journal, 1*(20), 231–250. https://doi.org/10.26817/16925777.708

Dryer, M. S. (2013). Order of adjectives and noun. In M. S. Dryer & M. Haspelmath (Eds.), *WALS Online (v2020.3) [Data set]*. Zenodo. https://doi.org/10.5281/zenodo.7385533

Frank, M. (1972). *Modern English: A practical reference guide*. New York, NY: Prentice-Hall.

Green, M. M., & Igwe, G. E. (1963). *A descriptive Igbo grammar*. Berlin/London: Akademia Verlag and Oxford University Press.

Jung, W. (2008). Adjective ordering: Contrastive analysis and interlanguage. *English Language & Literature Teaching, 15*(2), 121–150.

Lee, R. (2018). How adjective ordering preferences develop in children. *Semantic Scholars,* 132.

Posner, R. (1986). Iconicity in syntax: The natural order of attributes. In P. Bouissac, M. Herzfeld, & R. Posner (Eds.), *Iconicity: Essays on the nature of culture* (pp. 305–337). Tubingen: Stauffenburg Verlag.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. London: Longman.

Rasato, E. (2013). *Adjective order in English: A semantic account with cross-linguistic applications* (Doctoral dissertation). Carnegie Mellon University.

Sarah, M. (2008). *Multiple prenominal adjective usages by Asian L2 learners of English* (Master's thesis). Liberty University.

Scontras, G. (2022). Adjective ordering across languages. *The Annual Review of Linguistics, 9*(3), 57–76. https://doi.org/10.1146/annurev-linguistics-030521-041835

Scontras, G., Degen, J., & Goodman, N. D. (2017). Subjectivity predicts adjective ordering preferences. *Open Mind: Discoveries in Cognitive Science, 1*(1), 53–65. https://doi.org/10.1162/opmi_a_00005

Scott, G. J. (2002). Stacked adjectival modification and the structure of nominal phrases. In G. Cinque (Ed.), *Functional structure in DP and IP: The cartography of syntactic structures, Vol. 1* (pp. 91–120). Oxford: Oxford University Press.

Ward, I. C. (1936). *An introduction to the Ibo language*. Cambridge: Heffer.

Do academic goal concordance and LIWC dimensions predict academic resilience? A fsQCA-based exploration

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Abstract

Goal concordance is often considered an influential factor in individuals' performance and success in several domains. However, its impact on academic resilience has been barely examined. In like manner, Linguistic Inquiry and Word Count (LIWC) is a commonly used tool in extracting psychological processes from a written language but it has not been used to extract language patterns about academic resilience. This study assumed that goal concordance and language patterns measured by LIWC dimensions play important roles in determining academic resilience. Recognizing the lack of evidence in this area, this study was conducted to fill the empirical gap. The data were collected from a sample of 36 college students who were enrolled in their desired college courses (academic goal concordant) and 36 who were not (academic non-concordant). All participants completed the academic goal concordance and academic resilience measures. Additionally, the participants wrote essays about how resilient they were in facing academic challenges. The language patterns in the essays were analyzed using the dimensions of LIWC. The role of academic goal concordance and LIWC dimensions on academic resilience was determined using fuzzy-set qualitative comparative analysis (fsQCA). Important findings were noted. First, goal concordance was a peripheral condition for academic resilience. Second, the analytic and authentic dimensions of LIWC as well as the total number of words used in the essay were found to be necessary conditions of high academic resilience. Lastly, five combinations were identified that resulted in high academic resilience. The implications of these findings are discussed.

Keywords: goal concordance, LIWC, text analysis, academic resilience, fsQCA

Do academic goal concordance and LIWC dimensions predict academic resilience? A fsQCA-based exploration

1. Introduction

In the past decade, research on academic goal concordance in educational settings has consistently shown its critical role in academic success. Students who pursue academic goals that resonate with their values tend to have a sense of purpose and a high degree of motivation that enable them to navigate through challenges and maintain academic resilience (Gaudreau, 2012; Sheldon & Houser-Marko, 2001). Academic resilience is an essential factor that allows students to succeed in the demanding school environment. Previous studies consistently show that highly resilient students can endure and deal with heavy academic workloads, competitive environments, and academic stressors (Abubakar et al., 2021; Radhamani & Kalaivani, 2021). However, although the link between academic goal concordance and academic resilience is well-established in previous studies, there is a growing interest in using innovative methods to measure and analyze these constructs. The use of text analysis in extracting meanings and linguistic patterns through text is increasing. Linguistic Inquiry and Word Count (LIWC) is found to be one of the promising tools in this area. LIWC analyzes and quantifies various psychological, emotional, and cognitive states through written language. Because this tool can map the subtle indicators of students' goals, challenges, and emotional states (Boyd & Pennebaker, 2017; Tausczik & Pennebaker, 2010), it can also decode students' written language patterns that reflect academic resilience.

LIWC has been instrumental in exploring emotional experiences, personality traits, and social interactions, through linguistic patterns (Boyd & Schwartz, 2021). Due to its effectiveness, LIWC can also be equally valuable in understanding how individuals' language pattern reveals their resilience levels. Existing pieces of evidence suggest that a language pattern that demonstrates positivity, certainty, and focus on certain goals indicates self-concordance and resilience. In contrast, language pattern that reflects negative emotions such as doubt and stress suggests lower levels of goal concordance and resilience (Syah et al., 2019; Wu, 2024). However, despite these previous studies, there is a notable gap in the literature regarding the application of LIWC to examine language pattern related to students' academic resilience directly. Most studies in this area focused mainly on general psychological domains (Boyd et al., 2022; Fox & Royne Stafford, 2020). The goal of this study was, therefore, to not only fill the existing empirical gap but more so to provide further evidence that unlocks the significance of written language in sizing up academic resilience.

1.1 Significance of the study

This study is significant for several reasons, especially for the Philippine educational context. First, the current findings provide evidence of the role of choosing internally aligned academic goals on Filipino students' ability to successfully deal with academic challenges. Second, the current findings may be of great help to educators in assessing their students' level of academic resilience through text analysis. Third, given the limited studies in this area, the current findings shed light on the remaining gap in both local and international literature. Fourth, because this study might be the first to use LIWC in examining written language pertinent to academic resilience, the present results may provide an avenue for future similar endeavors. Lastly, the current findings can pave the way to a new way of understanding academic resilience.

2. Review of related literature

2.1 Academic goal concordance

Goal concordance, in general, refers to the pursuit of internally-aligned goals. In this study, academic goal

concordance is defined as the alignment between students' desired college courses and the actual academic major they are pursuing.

Previous studies considered goal concordance as one of the influential and strong predictors of motivation, well-being, and goal achievement. This contention is backed up by existing evidence in this area indicating that pursuing self-concordant goals not only results in greater persistence but also psychological benefits. Sheldon and Elliot (1999) argue that individuals who work on their goals that are aligned with their authentic interests exert more effort because the work itself makes them happy and satisfied. Recent studies have been consistently suggesting that goal concordance significantly influences various aspects of psychology and behavior. Wan et al. (2021), for instance, found that goal concordance broadly influenced mental health, emotion, willpower, cognition, and behavior. However, one recent study suggests that the link between goal concordance and mental health is not straightforward. Some cognitive factors might mediate this relationship (Sangeorzan et al., 2024). Nevertheless, the previous work of Sheldon et al. (2004) indicates that goal concordance poses universal benefits contending that people with self-concordant goals function optimally and have more positive emotions when pursuing activities they enjoy and believe in. Werner et al. (2016) added that working on a self-concordant goal is more effortless which in turn contribute to the attainment of such goal.

In the educational contexts, academic goal concordance has been closely linked to student motivation and academic success. Previous studies found that students with self-concordant goals were highly motivated greater academic outcomes (Gaudreau, 2012; Sheldon & Houser-Marko, 2001). This may strengthen the fact that pursuing a self-concordant academic goal will more likely result in favorable academic outcomes. Recent studies seemed to support this assumption suggesting that students with self-concordant academic goals achieved higher academic outcomes than their counterparts with nonconcordant goals (Lumontod, 2019). The impact of academic goal concordance does not only reflect on the academic outcome but also greater academic satisfaction and personal motivations (Gaudreau, 2012). Lastly, the academic self-concordant goal was found to have a significant influence on student academic resilience (Henry et al., 2023).

Despite the significance of pursuing concordant goals, it has not been fully explored in the local educational settings. To date, only a few studies barely scratched the surface of the existing gap in the local literature. Nonetheless, at least one study shows that students who pursued self-concordant academic goals tend to have higher and better academic performance than their counterparts who pursued non-concordant academic goals (Lumontod, 2019). However, the role of academic goal concordance on Filipino students' academic resilience has not been extensively examined. This area needs further studies that directly determine the predictive ability of academic goal concordance on academic resilience.

2.2 Academic resilience

College students' success in their academic endeavors depends on many factors. Academic resilience is one of them. Academic resilience is commonly defined as the student's capacity to function or perform optimally despite academic adversity. Recent studies consistently reveal the protective role of academic resilience against academic challenges. Seçer and Ulas (2020), for instance, showed that academic resilience alleviates students' issues such as negative school attachment and absenteeism. While most less resilient students experience poor academic outcomes, academically resilient students consistently achieve high academic performance (Radhamani & Kalaivani, 2021). The positive influence of academic resilience was also documented with socio-emotional skills. Wills and Hofmeyr (2019) found that academically resilient students showed greater socio-emotional skills than their less academically resilient counterparts. This seems to suggest that academic resilience not only provides a protective effect against academic challenges but also fosters broader socio-emotional development.

One of the focal points in the existing literature is that, although resilience is a generally favorable attribute, its level and manifestation can vary from one student to another. Personal and contextual factors might have

contributed to these differences. Recent studies showed that academic qualifications significantly predict academic resilience, not gender and educational streams (Pai & Sekhar, 2023). However, Abubakar et al. (2021) found that gender and year of study significantly influence academic resilience. This might further imply that while resilience is a broadly beneficial trait, its impact may be mediated or moderated by specific demographic and contextual factors. External support systems, for instance, may also play a significant role. These systems include family support, teacher support, and peer support (Duan et al., 2024). These support systems are crucial in helping students navigate academic challenges and maintain resilience. Shengyao et al. (2024) corroborate this contention suggesting that parenting style plays a significant role in shaping academic resilience, especially among younger students. Resilience training (integrating both personal and interpersonal factors) can also be beneficial for college students in cultivating and maintaining their academic success (Ang et al., 2021).

The influence of academic resilience transcends academic performance. Existing literature also shows the protective effect of academic resilience against students' academic stress. Previous studies indicate that academic resilience negatively influences academic stress (Kayun et al., 2023; Mulati & Purwandari, 2022). This negative relationship was also observed with broader psychological outcomes. Recent studies suggest that academic resilience negatively predicts school burnout (Romano et al., 2021; Tran et al., 2023). Moreover, academic resilience was found to have a positive predictive effect on emotional intelligence (Ononye et al., 2022), enjoyment of school, class participation, and general self-esteem (Martin & Marsh, 2006).

2.3 Linguistic Inquiry and Word Count (LIWC)

In recent years, there has been an increasing interest in the use of Linguistic Inquiry and Word Count (LIWC) in analyzing texts in different contexts (Chen & Huang, 2019; Essam & Abdo, 2021; Fox et al., 2020). Tausczik and Pennebaker (2010) argued that LIWC has excellent capability in detecting psychological dimensions including but not limited to attentional focus, emotion, social relationship, and thinking styles. Because an individual's language use is consistent over time, Boyd and Pennebaker (2017) contend that language-based measures can be more effective than traditional measures. Recent evidence suggests that the process of understanding human language is becoming more accurate which in turn can provide a clearer reflection of human thought, emotions, and behaviors (Boyd & Schwartz, 2021). This contention was found in an earlier study which showed that linguistic patterns used contain personality traits and social dynamics. Kacewicz et al. (2013), for instance, found that fewer first-person singular pronouns and more first-person plural and second-person singular pronouns are consistently used by people with higher social status. In this case, linguistic patterns could reflect social hierarchies. More recent evidence shows that language use in group communication can reveal the underlying group dynamics reflecting social structure and interactions (Kane & van Swol, 2023).

The use of LIWC extends to educational contexts. LIWC was shown to be a reliable measure that is capable of capturing students' emotional and perceptual experiences. A previous study found that LIWC dictionaries related to clout, authenticity, motives, and needs could potentially reveal students' subjective emotional experiences throughout daily school activities (Syah et al., 2019). Similarly, students' language use was linked to academic performance. Pennebaker et al. (2014) stated that students with higher academic grades tend to use more articles and prepositions. On the other hand, students with lower grades tend to consistently use auxiliary verbs, pronouns, adverbs, conjunctions, and negations, which indicate more dynamic, narrative language. Wu (2024) extends the previous study and found that simple LIWC word categories positively influence the composition performance of underperforming students, while complex LIWC word categories negatively impact their scores but have a positive impact on high-performing students. Given the reliability of LIWC in capturing students' psychological and perceptual experiences, this tool might be also capable of decoding and mapping the academic resilience through text analysis. However, the use of LIWC in the local educational settings remained limited, especially among college students. One study used LIWC in examining the signs of psychological issues from selected Filipino students' written language (Lumontod, 2020), but to the knowledge of the authors, no local studies were conducted to specifically determine the language patterns that reflect academic resilience. Thus, this area remained a fertile ground for scientific exploration.

2.4 Current study

In recent years, goal concordance has been extensively explored in many contexts. However, studies that examined its role in academic resilience remained scarce. Similarly, Linguistic Inquiry and Word Count (LIWC) has been effectively used both in clinical and social settings. However, its application in academic resilience is limited. In fact, to the knowledge of the authors, no studies were conducted and published in this area. Moreover, the combined predictive ability of academic goal concordance and LIWC dimensions has not been explored especially in the local educational setting. Considering this empirical gap, this study sought to unravel the significance of pursuing internally-aligned academic goals and written language as indicators of academic resilience.

3. Method

3.1 Design

The variables in this study were assessed through the following measures:

Academic Goal Concordance - Academic goal concordance was examined using a researcher-constructed item: Are you enrolled in your desired college course? This item was rated on dichotomous response options (yes or no). Students who were enrolled in their desired course were considered to have academically concordant goals. In contrast, students who were not enrolled in their desired college courses were considered to have academically non-concordant goals.

Academic Resilience Scale (ARS-30) – The Academic Resilience Scale (ARS-30) developed by Cassidy (2016) was used to quantitatively examine students' academic resilience. The ARS-30 measures three dimensions of academic resilience which include perseverance, reflecting and adaptive help-seeking, and negative affect and emotional response. However, this study only focused on the aggregate score, not on the individual subscales. Items are on a 5-point Likert scale response format ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Additionally, participants were asked to write an essay about academic resilience following this instruction: "As a student, please reflect on the academic challenges that you experienced so far and describe how resilient you were in facing those challenges. Give at least one example of those challenging situations and the steps you took to overcome them."

Linguistic Inquiry and Word Count (LIWC - 22) - The essays about academic resilience were quantitatively examined using the online version of Language Inquiry and Word Count (LIWC-22). This study only focused on the summary variable dimensions of LIWC which includes analytic (formal thinking) and authentic (unfiltered expression). Since the output of LIWC includes the total number of words (NoW) of the essay, NoW was then considered as one of the conditions or independent variables. LIWC computes the percentage of words used in the essay related to each dimension assessed. Both analytic and authentic dimensions have 0 to 100 values. The number of words was derived from the total word count of each essay.

3.2 Participants

The selection of participants involved several steps. First, approval from the Ethics Review Committee (ERC) was sought ensuring that the study followed ethical standards related to research involving human participants. Upon receipt of the approval, the data-gathering process commenced. Participants were purposively recruited through social media platforms and face-to-face interactions. This study focused only on college students from all courses and levels who enrolled in the academic year 2024-2025. This was to capture a wide range of perspectives pertaining to the concepts understudy. A combination of paper-and-pencil questionnaires and Google forms were utilized. The questionnaires were identical in both formats.

There were 297 college students participated in this study. 186 were female and 111 were male. Out of 297, 258 of them enrolled in their desired courses (had concordant academic goals). However, 12 were discarded due to a less than 100-word essay about academic resilience. As a result, the dataset for goal-concordant students was comprised of 246 participants. On the other hand, there were 39 students who participated who were not enrolled in their desired college courses (had non-concordant academic goals). However, 3 were discarded due to similar reasons resulting in a dataset with 36 respondents.   The large discrepancy in the sample size between the two groups was not appropriate when using fsQCA. To resolve this issue, a simple random sampling procedure was done from the 246 participants enrolled in their desired courses and randomly selected 36 cases to match the non-concordant group. As a result, the total number of participants in this study was 72 college students aged between 17 and 23 years old ($M = 18.86$, $SD = 1.36$).

3.3 Ethical considerations

All participants in this study were informed of the goals and nature of the current research. Their participation was purely voluntary and they maintained the right to withdraw before, during, and after participating. The anonymity and confidentiality of the gathered information were strictly observed.

3.4 Data analysis

The data were analyzed in several steps. First, descriptive statistics was used to gather information about the distribution of the participants according to their basic demographics as well as their level of academic resilience. Second, the numerical data obtained from LIWC dimensions including the total number of words of the essay were logarithmically transformed (Log^{10}). This was done due to the large differences of the values in these dimensions. Finally, to determine how academic goal concordance and dimensions of LIWC influence academic resilience, the fuzzy-set qualitative comparative analysis (fsQCA) method was conducted.

fsQCA is a set-theoretical that determines the influence or effect of multiple combinations of identified conditions on the outcome variable. The analysis is carried out using Boolean operation (Ragin, 2000). Unlike the symmetrical analysis methods, fsQCA does not focus on the strength and direction of the relationship, rather it accounts for the impact of certain combinations of antecedent variables on the outcome for each case in the dataset. This method sets fsQCA from traditional statistical techniques that only identify the aggregate influence of predictors on criterion variables losing the ability to determine the unique influence of those predictors on each case. Moreover, fsQCA employs a qualitative investigation with quantitative approach in determining the causes of certain outcome through configuration analysis. In the current study, academic resilience was the outcome variable that was assumed to be shaped by the complex combinations of conditions. The use of fsQCA allowed this study to identify the necessary and sufficient conditions that led to academic resilience. Conditions include data on goal concordance and LIWC dimensions.

Following the Boolean method, the data were calibrated. This study employed the direct method of calibration as suggested by Ragin (2009). The thresholds of qualitative anchors were determined which identified the structure of the fuzzy-set. These anchors include the threshold for full membership, cross-over point, and full non-membership that define the inclusion of cases and relevance of conditions. Normally, qualitative anchors have the following values; full membership (1), cross-over point (0.5), and full non-membership (0). However, researchers can set specific values for qualitative anchors based on their knowledge of the construct. In this study, since the data on academic goal concordance were dichotomous (1 = concordant; 0 = non-concordant), no calibration was needed. For academic resilience and LIWC dimensions, the minimum, mean, and maximum values were determined and considered qualitative anchors. This allowed for consistent calibration across conditions. The table below presents the variables with their anchor point thresholds of the fuzzy set.

Table 1

Variables explored and their corresponding anchor point thresholds

Name	Type	Abbreviation	Minimum Threshold	Crossover Point	Maximum Threshold
Academic Goal Concordance	Condition Variable	AGC			
Analytic	Condition Variable	A	0.08	1.46	1.93
Authentic	Condition Variable	Au	0.02	1.63	2.00
Number of Words	Condition Variable	NoW	0.26	2.35	2.99
Academic Resilience	Outcome Variable	AR	1.67	4.14	4.80

Note. Because academic goal concordance has 0 and 1 values, no calibration was applied.

This study used fsQCA 4.1 to analyze the combinations of conditions that resulted in the academic resilience of college students. The analysis was performed in three steps which include the necessity analysis, construction of the truth table, and configuration analysis. Several symbols were used to present the results of the analysis. The black circle (●) was used to denote the presence of the condition, while the crossed-out circle (⊗) denotes the absence of the condition. Moreover, the large circle represents core conditions while the small circle represents the secondary or peripheral conditions. Lastly, blank spaces represent a "do not care" situation which means a causal condition is either present or absent. Consistency measures how often the presence of the causal condition or combinations of conditions are associated with the expected outcome. Lastly, coverage measures how much of the expected outcome is explained by the causal condition or combinations of conditions.

4. Results and Discussion

The main goal of this study was to examine how academic goal concordance and LIWC dimensions affect the academic resilience of college students. The findings are indicated and discussed in the following sections.

4.1 The necessity analysis of the single variable

After the calibration process, the necessity analysis of a single condition was performed using fsQCA. The findings are reflected using two measures: consistency and coverage. As previously mentioned, consistency measures the degree to which a condition is a subset of the outcome variable. Coverage, on the other hand, measures how well a causal condition or combination of conditions explains the outcome. Both measures have 0 and 1 values. A consistency value of 0.9 indicates that a causal condition is necessary for the outcome variable to occur. As indicated in Table 2, analytic, authentic, and number of words had higher than 0.9 consistency values which suggests that the presence of these conditions reflects high academic resilience. Specifically, the analytic dimension of LIWC was found to be highly indicative of high academic resilience. In contrast, the absence of an analytic dimension is not a necessary condition for the absence of academic resilience. Moreover, the authenticity dimension was also found to be a necessary condition for high academic resilience. In the context of this study, this suggests that the authenticity dimension of LIWC is a good indicator of high academic resilience. The absence of this dimension is not a necessary condition for low academic resilience. Lastly, the results show that the number of words is necessary for academic resilience. In contrast, the absence of this condition is not a necessary condition for the low level of academic resilience. Moreover, academic goal concordance was found to be a less likely candidate for a good predictor of high academic resilience. The absence of academic goal concordance is not necessary for lower academic resilience. In sum, analytic, authentic, and the number of words are necessary conditions for high academic resilience. These conditions are good indicators of academic resilience among college students. However, the absence of these conditions does not strongly influence the lower level of academic resilience.

Table 2

Necessity test of single condition variable

Condition variable	Consistency	Coverage
Academic Goal Concordance	0.539	0.639
~Academic Goal Concordance	0.461	0.577
Analytic	0.934	0.964
~Analytic	0.420	0.743
Authentic	0.961	0.929
~Authentic	0.441	0.728
Number of Words	0.960	0.974
~Number of Words	0.475	0.725

Note. ~Indicates absence of a condition.

Table 3 presents the results of fsQCA analysis focusing on parsimonious and intermediate solutions. The findings identified five configurations that resulted in high academic resilience. For the parsimonious solution, the analytic, authentic, and number of word dimensions were identified as crucial factors. The high degree of consistency suggests that this combination fully explains the outcome variable. This implies that combining these conditions accounts for nearly all cases of high academic resilience.

The intermediate solutions reveal more detailed pathways to academic resilience. The combination of conditions such as academic goal concordance, analytic, and number of words accounts for about 49.05% of cases. Another identified pathway is the combination of analytic, authentic, and number of words which accounts for a significant proportion of cases. However, some pathways have included the presence and absence of conditions that lead to the outcome. Overall, the intermediate solution suggests that these pathways or combinations are strong predictors of high academic resilience.

Table 3

Parsimonious and intermediate solutions

Measure	Path of Solutions	Raw Coverage	Unique Coverage	Consistency
Parsimonious	Analytic	0.934	0.005	0.964
	Authentic	0.961	0.015	0.929
	Number of Words	0.960	0.010	0.474
Solution Coverage: 0.997				
Solution Consistency: 0.913				
Intermediate Solution	AGC*A*NoW	0.491	0.012	0.993
	A*Au*NoW	0.891	0.214	0.995
	AGC*A*~Au*~NoW	0.204	0.008	0.963
	AGC*~A*~Au*NoW	0.204	0.007	0.986
	AGC*~A*Au*~NoW	0.214	0.009	0.974
Solution Coverage: 0.928				
Solution Consistency: 0.980				

Note. The complex solution is not included in the table because only parsimonious and intermediate solutions were used in identifying core and peripheral conditions.

4.1.1 Analytic plus number of words

Table 4 indicates the configurations that predict high academic resilience. The first configuration shows that academic resilience can be identified with a high frequency of analytic and the number of words in essays regardless of authentic dimension. This also indicates that the academic resilience of some students can be identified with analytic and the length of their essays. Longer essays that contain analytical-related words can be indicative of high academic resilience.

4.1.2 Analytic, plus authentic, plus number of words

The second configuration was also identified as a reliable predictor of academic resilience. This suggests that students with high-frequency usage of analytic, authentic words, and longer essays had high academic resilience. This may suggest that longer essays that contain more analytic and authenticity-related words can be

indicative of high academic resilience.

4.1.3 Analytic subtract authentic and number of words

The third combination indicates that the presence of analytic and the absence of authentic, and number of words in the essay contributes to some instances of academic resilience. This combination, however, is not as strong as other pathways. Nevertheless, in this study, the high-frequency usage of analytic words alone could reflect the high level of academic resilience of some students.

4.1.4 Number of words subtract analytic and authentic

The fourth combination indicates a valid path but only accounts for fewer cases. It suggests that for some students in the sample, the length of the essay alone may indicate high academic resilience. The longer the essay the more it may reflect high academic resilience.

4.1.5 Authentic subtract number of words and analytic

The fifth configuration has a moderate contribution to explaining cases of academic resilience. This suggests that high-frequency usage of authentic words and absence of analytic and number of words may indicate a high level of academic resilience. This combination suggests that in some students, authentic related words in the essay can be indicative of academic resilience.

Table 4

Configurations with academic resilience

Path	Conditions				Raw Coverage	Unique Coverage	Consistency
	AGC	A	Au	NoW			
AGC*A*NoW	●	●		●	0.491	0.012	0.993
A*Au*NoW		●	●	●	0.891	0.214	0.995
~AGC*A*~Au*~NoW	⊗	●	⊗	⊗	0.204	0.008	0.963
~AGC*~A*~Au*NoW	⊗	⊗	⊗	●	0.204	0.007	0.986
AGC*~A*Au*~NoW	●	⊗	●	⊗	0.214	0.009	0.974

Solution Coverage: 0.928
Solution Consistency: 0.980

Generally, the results show that academic goal concordance appeared to be a peripheral condition within the five configurations that resulted in academic resilience. In other words, academic goal concordance is not a necessary condition for high academic resilience. This might further suggest that pursuing college courses that are not aligned with students' desires may not necessarily impair their ability to endure academic challenges. This assertion partially contradicts previous findings in this area. Existing pieces of evidence suggest that pursuing self-concordant goals is related to greater persistence (Sheldon & Elliot, 1999; Wan et al., 2021). It is important to note, however, that most previous studies in this area were conducted outside of the academic context. Thus, it remains unclear whether those findings can be applied to academic settings. Also, some studies in the academic context did not directly explore the link between academic goal concordance and academic resilience but academic performance (Gaudreau, 2012; Lumontod, 2019). To date, only a few empirical efforts (e.g., Henry et al., 2023) examined how pursuing self-concordant goal impact academic resilience. The peripheral role of academic goal concordance found in this study indicates that this condition is not a strong predictor of high academic resilience. Other factors are needed for high academic resilience to occur. This might also point to the fact that academic resilience is a multifaceted construct that is explained by several combined factors (Masten, 2019; Southwick et al., 2014). Perhaps, students can be inherently academically resilient regardless of whether they pursue an internally aligned academic goal or not. However, it is also possible that the absence of a significant effect of academic goal concordance on academic resilience was primarily due to how the current study measured academic goal concordance. As indicated in the previous section, goal concordance

was assessed through a straightforward statement by asking students whether or not they were enrolled in their desired college courses. Such simplicity might have failed to capture the accurate essence of academic goal concordance as a multifaceted construct. In turn, this limitation might have impacted the current findings. Future research in this area may fill this gap by measuring academic goal concordance using different methods quantitatively or qualitatively.

Moreover, the fsQCA analysis results showed that LIWC dimensions (analytic and authentic) and the total number of words in the essay were necessary conditions for high academic resilience. In other words, students who wrote more analytic and authenticity-related words and longer essays about academic resilience tend to have higher scores on the academic resilience scale. It can be argued then that these conditions are reflective of high academic resilience in the current sample. This supports previous findings which suggest that LIWC can be a valuable tool in extracting meaning from a given text (Essam & Abdo, 2021; Fox et al., 2020). LIWC usage can be more beneficial in instances wherein using traditional measures is impaired by methodological challenges. Because language is consistent (Boyd & Pennebaker, 2017), the meaning it conveys offers a window for an individual's behavioral and psychological tendencies. In an academic context, this can also be plausible and noteworthy. Previous studies show that LIWC was able to capture students' emotional experiences (Syah et al., 2019; Wu, 2024). These corroborate with the current results suggesting that LIWC dimensions reflect academic resilience. But again, this does not discard the fact that although LIWC is an objective analytical tool, it cannot promise accurate results. In the context of the current study, the essay from which the LIWC findings were derived might not wholly reflect the level of academic resilience of the respondent students. Students' narratives might have been influenced by other factors unaccounted for in this study. This includes the fact that English is not the native language of the respondents. Some students might have struggled to put their internal experiences into words. As a result, the essay might not entirely indicate the degree of academic resilience that the respondents truly had. Despite these inherent limitations, the current findings offer valuable insights into how written language can be examined using text analysis. It can be argued that LIWC is a useful tool that can be applied to different academic domains (Pennebaker et al., 2014). The present results offer valuable pieces of preliminary evidence for future studies as to how academic constructs be examined.

Overall, there were five combinations identified that resulted in high academic resilience. However, only the total number of words in the essays appeared in three out of five combinations. This condition, therefore, is a strong predictor of high academic resilience. In the context of this study, students who wrote longer essays tend to have higher academic resilience. This is plausible because writing is a tedious task that often bores most students. Resilient students, due to their inherent capability to endure challenging tasks were tenacious enough to describe their experience in more detailed writing. The raw data confirmed this observation. Several responses were excluded from the dataset because they were less than 100 words. LIWC requires more words to establish meaningful analysis. Also, during the data gathering, it was observed that many respondents were reluctant to respond to the essay part of the questionnaire perhaps due to two possible reasons; the tedious nature of essay writing and the language barrier. Although the respondents were college students, English is not their native language which may pose a challenge in capturing the accuracy of the obtained data. It could be that the words being used might not exactly reflect the respondents' true level of academic resilience. These issues might have impacted the gathered data and therefore comprise their accuracy and generalizability.

It is also equally important to note that the absence and presence of analytic, authentic, and total words in the essay contribute to high academic resilience. As indicated in Table 4, in some cases, academic resilience occurred when at least one of these conditions was present even if other conditions were absent. Aside from the LIWC dimensions examined in this study, some contextual and personal factors might have shaped academic resilience. For instance, some students might be inherently resilient. Thus, regardless of whether or not they were enrolled in their desired courses, they are capable enough of enduring academic challenges. Additionally, the Filipino culture might have largely contributed to students' resilience. Filipinos are known for being resilient through their strong faith (Hechanova et al., 2015), resourcefulness (Adviento & De Guzman, 2010), and sense of humor (Ladrido-Ignacio, 2011). These are a few of the identified protective factors that allow Filipinos to

navigate challenges in life. These factors might also have contributed to the level of academic resilience found in this study. These contentions, however, were not directly examined in this study. Further research might be needed to test this assumption.

Taken together, the current findings suggest several important implications. First, higher scores in the analytic LIWC dimension may reflect problem-solving, self-regulation, and metacognitive awareness which in turn indicates a structured and logical approach to thinking that aligns with common traits of highly resilient students (Pinar et al., 2018). Second, higher scores on the authentic dimension of LIWC might be indicative of emotional openness. As a result, students who expressed themselves authentically were able to acknowledge their emotions and sustain their motivation through meaningful goals. Third, a higher word count of essays reflects greater effort, persistence, and engagement. These traits are crucial for navigating academic challenges. Additionally, a longer word count of the essay may indicate cognitive flexibility and confidence in expressing oneself allowing for a student to articulate his or her ideas in depth. Lastly, the combined impact of these conditions on academic resilience accentuates the balance between emotional regulation and logical reasoning, both may underpin resilience among students. However, given the dynamic and multifaceted nature of academic resilience, further research on how different configurations of emotional, cognitive, and motivational factors contribute to resilience will enhance the current understanding in this area.

5. Conclusion

In sum, the fsQCA findings reveal that academic goal concordance was a peripheral condition for academic resilience. Additionally, the findings show that the analytic and authentic dimensions of LIWC and the total number of words in the essay were necessary conditions for high academic resilience. Moreover, there were five configurations identified that resulted in academic resilience. Analytic and total number of words of the essay appeared in three of those five configurations indicating that these dimensions were strong predictors of high academic resilience. These findings may have important implications for teachers and students. Teachers may use text analysis to better assess their students' ability to navigate academic challenges while students may benefit from engaging in writing tasks and making them tools for self-reflection and growth.

5.1 Limitations and recommendations for future studies

Although this study provides novel insights, it comes with several limitations. One important limitation is the small sample size. Although fsQCA works well with small sample sizes, more cases may improve the accuracy of the findings. Additionally, the use of fsQCA may benefit from integrating traditional symmetrical statistical methods such as multiple regression and structural equation modeling (SEM). This can help determine how much of the variance of the dependent construct is explained by which predictor(s). Moreover, although LIWC is a robust measure of psychological factors, it faces challenges when used in non-English speaking populations. In this study, for instance, the language barrier is one of the hurdles in capturing the accuracy of the data measured. The difficulty in putting one's internal experience into words might have influenced the trajectory of the LIWC results. Future research may use stringent criteria in selecting the respondents that include the proficiency in English language. A qualitative (interview) approach could also foster the reliability of the results. Lastly, this study did not take into account students' courses and levels. These factors might have also shaped their academic resilience. Future studies could explore these factors and their potential impact on students' resilience.

6. References

Abubakar, U., Azli, N. A. S. M., Hashim, I. A., Kamarudin, N. F. A., Latif, N. A. I. A., Badaruddin, A. R. M., Razak, M. Z., & Zaidan, N. A. (2021). The relationship between academic resilience and academic performance among pharmacy students. *Pharmacy Education, 21*(1), 705 – 712. https://doi.org/10.46542/pe.2021.211.705712

Adviento, M. L., & De Guzman, J. M. (2010). Community resilience during typhoon Ondoy: The case of Ateneoville. *Philippine Journal of Psychology, 43,* 101-113

Ang, W. H. D., & Shorey, S., Lopez, V., Chew, H. S. J., & Lau, L. (2021). Generation Z undergraduate students' resilience during the COVID-19 pandemic: A qualitative study. *Current Psychology, 41,* 8132–8146. https://doi.org/10.1007/s12144-021-01830-4

Boyd, R. L., Ashokkumar, A., Seraj, S., & Pennebaker, J. W. (2022). The development and psychometric properties of LIWC-22. Austin, TX: University of Texas at Austin. https://www.liwc.app

Boyd, R. L., & Pennebaker, J. W. (2017). Language-based personality: A new approach to personality in a digital world. *Current Opinion in Behavioral Sciences, 18,* 63-68. http://dx.doi.org/10.1016/j.cobeha.2017.07.017

Boyd, R. L., & Schwartz, H. A. (2021). Natural language analysis and the psychology of verbal behavior: The past, present, and future states of the field. *Journal of Language and Social Psychology, 40*(1) 21–41. https://doi.org/10.1177/0261927X20967028

Cassidy, S. (2016). The Academic Resilience Scale (ARS-30): A new multidimensional construct measure. *Frontiers in Psychology, 7,* 1787. https://doi.org/10.3389/fpsyg.2016.01787

Chen, C-Y., & Huang, T-R. (2019). Christians and Buddhists are comparably happy on Twitter: A large-scale linguistic analysis of religious differences in social, cognitive, and emotional tendencies. *Frontiers in Psychology, 10,* 113. https://doi.org/10.3389/fpsyg.2019.00113

Duan, S., Han, X., Li, X., & Liu, H. (2024). Unveiling student academic resilience in language learning: A structural equation modelling approach. *BMC Psychology, 12,* 177, 1-12. https://doi.org/10.1186/s40359-024-01665-1

Essam, B. A., & Abdo, M. S. (2020). How do Arab tweeters perceive the COVID-19 pandemic? *Journal of Psycholinguistic Research, 50,* 507–521. https://doi.org/10.1007/s10936-020-09715-6

Fox, A. K., & Royne Stafford, M. B. (2020). Olympians on Twitter: A linguistic perspective of the role of authenticity, clout, and expertise in social media advertising. *Journal of Current Issues and Research in Advertising 42*(3), 294–309. https://doi.org/10.1080/10641734.2020.1763521

Gaudreau, P. (2012). Goal self-concordance moderates the relationship between achievement goals and indicators of academic adjustment. *Learning and Individual Differences, 22,* 827–832. https://doi.org/10.1016/j.lindif.2012.06.006

Hechanova, M. R., Waelde L., Docena P., Alampay L., Alianan A., Flores, M. J., Ramos, P. A., & Melgar, M. I. (2015). The development and initial evaluation of katatagan: A resilience intervention for Filipino disaster survivors. *Philippine Journal of Psychology, 48*(2), 105-131.

Henry, A., Thorsen, C., & Uztosun, M. S. (2023). Exploring language learners' self-generated goals: Does self-concordance affect engagement and resilience? *System, 112,* 102971. https://doi.org/10.1016/j.system.2022.102971

Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2013). Pronoun use reflects standings in social hierarchies. *Journal of Language and Social Psychology, 33*(2), 125-143. https://doi.org/10.1177/0261927X13502654

Kane, A. A., & van Swol, L. M. (2023). Using Linguistic Inquiry and Word Count Software to analyze group interaction language data. *Group Dynamics: Theory, Research, and Practice, 27*(3), 188–201. https://doi.org/10.1037/gdn0000195

Kayun, R. H., Limbu, R., & Wijaya, R. P. C. (2023). Relationship between academic resilience with academic stress in online learning among college students. *Journal of Health and Behavioral Science, 5*(1), 107-117. https://doi.org/10.35508/jhbs.v5i1.8744

Ladrido-Ignacio, L. (2011). Basic framework: Transformation of victims of disasters to survivors. In L. Ignacio (Ed.), *Ginhawa: Well-being in the aftermath of disasters* (Pp. 60-86). Quezon City Philippines: Flipside Digital Content Company, Inc.

Lumontod, R. Z., III. (2020). Seeing the invisible: Extracting signs of depression and suicidal ideation from college students' writing using LIWC a computerized text analysis. *International Journal of Research Studies in Education, 9*(4), 31-44. https://doi.org/10.5861/ijrse.2020.5007

Lumontod, R. Z., III. (2019). The role of goal concordance on happiness and college students' academic performance. *International Journal of Research Studies in Psychology, 8*(1), 63-78. https://doi.org/10.5861/ijrsp.2019.4000

Martin, A. J., & Marsh, H. W. (2006). Academic resilience and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools, 43*(3), 267-281. https://doi.org/10.1002/pits.20149

Masten, A. S. (2019). Resilience from a developmental systems perspective. *World Psychiatry, 18*(1), 101–102. https://doi.org/10.1002/wps.20591.

Mulati, Y., & Purwandari, E. (2022). The role of resilience in coping with academic stress (a meta-analysis study)" in International Conference of Psychology 2022 (ICoPsy 2022), KnE Social Sciences, pages 182–200. https://doi.org/10.18502/kss.v7i18.12387

Ononye, U., Ogbeta, M., Ndudi, F., Bereprebofa, D., & Maduemezia, I. (2022). Academic resilience, emotional intelligence, and academic performance among undergraduate students. *Knowledge and Performance Management, 6*(1), 1-10. http://dx.doi.org/10.21511/kpm.06(1).2022.01

Pai, M., & Arjun, S. P. M. (2023). Academic resilience and self-efficacy among young adults. *International Journal of Indian Psychology, 11*(2), 542-557.

Pennebaker, J. W., Chung, C. K., Frazee, J., Lavergne, G. M., & Beaver, D. I. (2014). When small words foretell academic success: The case of college admissions essays. *PLoS ONE, 9*(12), e115844. https://doi.org/10.1371/journal.pone.0115844

Pinar, S. E., Yildirim, G., & Sayin, N. (2018). Investigating the psychological resilience, self-confidence and problem-solving skills of midwife candidates. *Nurse Education Today, 64,* 144-149. https://doi.org/10.1016/j.nedt.2018.02.014

Radhamani, K., & Kalaivani, D. (2021). Academic resilience among students: A review of literature. *International Journal of Research and Review, 8*(6), 360-369. https://doi.org/10.52403/ijrr.20210646

Ragin, C. (2009). "Qualitative Comparative Analysis Using Fuzzy Sets (fsQCA)". In Rihoux, B. and C. C. Ragin. *Configurational Comparative Methods. Qualitative Comparative Analysis (QCA) and Related Techniques.* Los Angeles, London, New Delhi and Singapore: Sage Publications, 87-121.

Romano, L., Consiglio, P., Angelini, G., & Fiorilli, C. (2021). Between academic resilience and burnout: The moderating role of satisfaction on school context relationships. *European Journal of Investigation in Health, Psychology and Education, 11,* 770–780. https://doi.org/10.3390/ejihpe11030055

Sangeorzan, P. C., Goodson, W. L., & Bohon, L. M. (2024). The why to bear any how: Goal self-concordance, meaning, and depressive and anxious symptomatology. *International Journal of Applied Positive Psychology, 9,* 879–898. https://doi.org/10.1007/s41042-024-00158-1

Seçer, I., & Ulas, S. (2020). The mediator role of academic resilience in the relationship of anxiety sensitivity, social and adaptive functioning, and school refusal with school attachment in high school students. *Frontiers in Psychology, 11,* 557. https://doi.org/10.3389/fpsyg.2020.00557

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*(3), 482-497. https://doi.org/10.1037/0022-3514.76.3.482

Sheldon, K. M., Elliot, A. J., Ryan, R. M., Chirkov, V., Kim, Y., Wu, C., Demir, M., & Sun, Z. (2004). Self-concordance and subjective well-being in four cultures. *Journal of Cross-Cultural Psychology, 35*(2), 209-223. https://doi.org/10.1177/0022022103262245

Sheldon, K., & Houser-Marko, L. (2001). Self-concordance, goal attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology, 80*(1), 152-165.

Shengyao, Y., Jenatabadi, H. S., Mengshi, Y., Minqin, C., Xuefen, L., & Mustafa, Z. (2024). Academic resilience, self-efficacy, and motivation: the role of parenting style. *Scientific Reports, 14,* 5571. https://doi.org/10.1038/s41598-024-55530-7

Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology, 5*(1), 25338. https://doi.org/10.3402/ejpt. v5.25338.

Syah, T. A., Apriyanto, S., & Nurhayaty, A. (2019). Student's prevailing, confidence, and drives: LIWC analysis on self-description text. Proceedings of the 1st International Conference on Science, Health, Economics Education and Technology (ICoSHEET 2019). *Advances in Health Sciences Research, 27,* 295-299.

Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology, 29*(1) 24–54. https://doi.org/10.1177/0261927X09351676

Tran, T. X., Vo, T. T. T., Ho, C. (2023). From academic resilience to academic burnout among international university students during the Post-COVID-19 new normal: An empirical study in Taiwan. *Behavioral Science, 13,* 206. https://doi.org/10.3390/bs13030206

Wan, P., Wen, T., Zhang, Y., & Gao, H., & Wang, J. (2021). Goal self-concordance model: What have we learned and where are we going. *International Journal of Mental Health Promotion, 23*(2), 201-219. https://doi.org/10.32604/IJMHP.2021.015759

Werner, K. M., Milyavskaya, M., Foxen-Craft, E., & Koestner, R. (2016). Some goals just feel easier: Self-concordance leads to goal progress through subjective ease, not effort. *Personality and Individual Differences, 96,* 237–242. http://dx.doi.org/10.1016/j.paid.2016.03.002

Wills, G., & Hofmeyr, H. (2019). Academic resilience in challenging contexts: Evidence from township and rural primary schools in South Africa. *International Journal of Educational Research, 98,* 192–205. https://doi.org/10.1016/j.ijer.2019.08.001

Wu, Y. (2024). A study on the correlation between LIWC word categories and Chinese composition writing performance of fourth, fifth, and sixth grade students. *Journal of Contemporary Educational Research, 8*(1), 199-206. http://ojs.bbwpublisher.com/index.php/JCER

Secondary school teachers' conception and levels of use of competence-based assessment in Tanzania

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Abstract

This qualitative descriptive study investigated secondary school teachers' conception and levels of implementation of Competence-Based Assessment (CBA) in Morogoro Municipality. Guided by constructivist theory and the Concerns-Based Adoption Model, the research involved interviews with 16 secondary school teachers as participants, purposively selected from 8 randomly chosen government schools. Data were collected through semi-structured interviews with open-ended questions, enabling participants to freely express their perspectives, experiences, and behaviors related to CBA. The data were analyzed using thematic analysis, which involved identifying, organizing, and interpreting patterns within the interview transcripts to uncover recurring ideas, perceptions, and practices. The findings revealed varied perceptions of CBA among the teachers. While a few viewed CBA as an extended version of traditional assessment, the majority saw it as a comprehensive approach to assessment, and some considered it a performance-based or criterion-referenced method. The study also found that CBA implementation in schools was limited. Most teachers were at an early non-user stage, with a few making attempts to progress to the preparation stage, as described in the Levels of Use framework. The study recommends that the government strengthen teacher training, provide adequate resources, and offer ongoing support to improve the understanding and implementation of CBA.

Keywords: assessment of learning, assessment for learning, concern-based adoption model, levels of use framework, teachers' understanding of assessment

Secondary school teachers' conception and levels of use of competence-based assessment in Tanzania

1. Introduction

Competence-Based Assessment (CBA) emerged in the 1970s in western-world countries in Europe, U.S.A and Australia as part of broader educational reforms aimed at aligning learning outcomes with real-world skills. Initially developed in vocational education (Adamson & Darling-Hammond, 2014; Bunda & Sanders, 1979), CBA focused on assessing students' ability to apply knowledge and skills in practical contexts rather than relying solely on theoretical exams. The approach gained traction in the 1990s as countries sought to better prepare students for the workforce, particularly in response to the growing demand for skilled labour (Wong, 2020). By emphasizing practical competence, CBA shifted education towards more personalized, outcome-driven approaches. Over time, its scope expanded beyond vocational training to K-12 and higher education to enhance skills development. Developing countries, including those in Sub-Saharan Africa, followed suit in recent decades (Akinrinola et al., 2020).

The adoption of CBA, however, demonstrates significant variation between developed and developing countries due to differences in infrastructure, resources, and teacher preparedness. In developed countries, CBA is typically supported by strong educational systems, advanced technology, and well-trained educators (Akinrinola et al., 2020; Allen, 2021). Governments in these countries have invested heavily in teacher training, digital tools, and curriculum development to enhance competency assessment (Wong, 2020). Education systems in these countries emphasize more on personalized learning pathways, enabling students to progress at their own pace based on demonstrated competencies. In contrast, developing countries face numerous challenges in adopting CBA (Akinrinola et al., 2020). With resource limitations, large class sizes, and restricted access to technology continuing to impede its implementation (Mwashighadi & Kitainge, 2023), the lack of pedagogical skills and understanding among teachers appear to significantly impede teachers' ability to effectively design and apply CBA (Christ et al., 2014). Largely, this gap is a result of ineffective diffusion process of this innovative assessment approach from western countries (Makwinya et al., 2022), characterized by limited access to professional development opportunities and reliance on outdated teacher training programs (Mtitu, 2014; Nzima, 2016). Additionally, systemic challenges such as a lack of robust policy support (Makwinya, 2022) and insufficient funding for educational reforms further exacerbate the issue (Makunja, 2016; Munoz & Araya, 2017). In many cases, teachers may be personally learning to manage CBA informally, relying on trial and error to navigate its implementation, which result in inconsistent implementation. Given these contexts, it is crucial to investigate the current understanding and practices of teachers in implementing CBA to address these gaps and improve its effectiveness. This study was designed to serve this need.

1.1 Study context and purpose

CBA was introduced alongside Competence-Based Education (CBE) in the early 2000s, with significant curriculum revisions in 2023 (MoEVT, 2007; TIE, 2013, URT, 2014). The current secondary school curriculum requires teachers to evaluate student competencies using authentic and performance-based methods (Juma & Patel, 2024), which include field observations, practical demonstrations, problem-solving tasks, portfolios, projects, concept maps, and oral presentations (Ishemo, 2021). These approaches are intended to make education more practical, relevant, and aligned with real-world demands. However, Tanzania's experience with CBA reflects the broader challenges faced by developing countries in adopting educational innovations developed from the western world. While policy frameworks supporting CBA are in place, its practical implementation appears to be constrained by ill-resourced contexts (Makunja, 2016; Kinyota, 2020) and unreliable teacher professional development (Komba & Mwakabenga, 2019; Mgaiwa & Milinga, 2024), leading to lacking

pedagogical skills for designing and conducting competency-based assessments. That is to say, the CBA was introduced alongside competence-based curriculum—a foundational innovation—without sufficient preparation, as teachers were not adequately trained, nor were school environments tailored to support these changes. In light of these circumstances, examining how implementers understand and engage with such innovations is crucial. This study served this purpose and was guided by two research questions:

(i)   What are the secondary school teachers' conceptions regarding the CBA?

(ii)   How do secondary school teachers implement CBA in schools?

2. Literature

2.1 Defining CBA

CBA has gained momentum across various educational systems, reflecting a growing emphasis on practical skills and real-world application. This shift contrasts with traditional assessment approaches that focus primarily on memorized knowledge. Scholars have, therefore, defied CBA in various ways, reflecting diverse interpretations of its principles and practices. Some (e.g., Wong, 2020) define CBA as an assessment approach that emphasizes the application of knowledge, skills, and attitudes to real-world tasks, aiming to ensure that learners can demonstrate competence in specific areas. Others (e.g., Schuwirth & Ash, 2013) looks at CBA as a flexible, formative process, where assessment occurs continuously to guide learners' development. Such scholars emphasize the holistic nature of CBA, highlighting its focus on both learning processes and outcomes, assessing students' input, engagement, and performance. Besides, some scholars (e.g., Gallardo, 2020; Juma & Patel, 2024; Olson & Krysiak, 2021) emphasize the alignment of Competence-Based Assessment (CBA) with industry or societal needs highlight its criterion-referenced nature, where students are assessed against specific, predefined standards relevant to real-world contexts. This approach ensures that assessments measure students' ability to meet these competency benchmarks, focusing on practical skills and knowledge applicable to professional or societal demands, rather than relative performance. These variations reflect the evolving understanding of CBA in educational settings, emphasizing different aspects like application, learner focus, and contextual relevance.

Based on such definitions, CBA largely appears to focus on measurable and observable outcomes. As such, CBA rely heavily on assessment formats that are authentic and performance-focused, which require students to demonstrate their competencies in practical scenarios, providing a clear indication of their ability to apply knowledge (Wong, 2020). Measuring progress and outcomes has largely been carried out through portfolio, practical demonstrations, and observation of hands-on skills. Portfolios allow students to collect evidence of their work over time, showcasing their growth and learning process (Adamson & Darling-Hammond, 2014). Practical demonstrations assess hands-on skills in subjects like science or vocational training, while problem-solving tasks evaluate students' ability to tackle real-life challenges (Akinrinola et al., 2020). Oral presentations and projects are also commonly used, helping to assess critical thinking, communication, and creativity (Wong, 2020). These methods align learning outcomes with the skills needed in professional environments, making education more relevant and practical, and ensuring that students are adequately prepared for the workforce. The conceptualization of CBA, however, varies significantly in different contexts, with terms such as alternative assessment, ability testing, and assessment for learning outcomes often used interchangeably (Christ et al., 2014). These terms highlight diverse aspects of the assessment process, emphasizing a departure from traditional high-stake examinations to more holistic measures.

Despite the widespread adoption of CBA, defining "competence" remains a contentious issue. Literature indicates varying interpretations of competence, with no universal consensus on its exact meaning. Bunda and Sanders (1979) and Gallardo (2020) categorize competence definitions into two main groups: one that views competence as a hypothetical construct, often used in curriculum development, and another that sees competence as a standard of performance, closely related to mastery or criterion levels. This second view is more aligned

with the operational focus of CBA, which centers on the demonstration of skills and knowledge against predefined standards. Other scholars have grouped definitions of competence into five categories, offering a more nuanced understanding of its role in education (Wong, 2020; Mwashighadi & Kitainge, 2023). These include competence as the ability to perform at desired levels, the ability to select and apply relevant attributes (knowledge, skills, attitudes), and the possession of those attributes. More comprehensive definitions encompass elements of all these perspectives. For instance, the National Council for Technical and Vocational Training (NACTVET) in Tanzania identifies competence descriptors, including knowledge, skills, understanding, and broader attributes (NACTVET, 2022). Gallardo (2020) and Olson and Krysiak (2021) note that a competence-based assessment seeks to measure in learners the ability to master a certain definable competence descriptor. Generally, CBA is an approach that assesses not just knowledge, but also learners' practical skills and critical thinking

2.2 Importance of CBA

CBA is crucial in modern education as it focuses on evaluating students' ability to apply knowledge and skills in real-world contexts. As CBA emphasizes practical, outcome-driven learning (Gallardo, 2020), it ensures students are better prepared for the workforce by assessing competencies like problem-solving, critical thinking, and collaboration, which are essential in professional environments. CBA also promotes personalized learning, allowing students to progress based on demonstrated abilities rather than time spent in class (Wong, 2020). Moreover, it encourages continuous improvement through ongoing feedback, fostering a deeper understanding of subject matter. In this way, CBA aligns educational outcomes with global labor market needs, ensuring students are equipped with the skills necessary for success in their careers. CBA seeks to assess students' mastery of the knowledge and skills they are expected to acquire as they progress through their education (Munoz et al., 2021). This approach aligns with the growing recognition of the need for education to go beyond academic achievement, focusing on life skills that enable individuals to function effectively in society (Wong, 2020). Furthermore, CBA is crucial in preparing students for the Fourth Industrial Revolution, which requires a workforce skilled in areas that go beyond traditional academic knowledge, integrating technologies across the physical, digital, and biological spheres (Juma & Patel, 2024).

2.3 Challenges facing CBA implementation

The implementation of CBA faces significant challenges, particularly in developing countries. While CBA aims to shift education from rote memorization to the development of practical skills and competencies, its execution often falls short due to several factors. In developed countries, CBA benefits from strong infrastructure, advanced technology, and well-trained educators who can effectively integrate competency-based methods into the curriculum (Wong, 2020). However, in many developing countries, the picture is different. Teachers often lack the necessary training and resources to implement CBA effectively (Akinrinola et al., 2020; Makunja, 2016; Makwinya et al., 2022; Mgaiwa & Milinga, 2024; Zamda et al., 2024). Additionally, large class sizes, limited access to technology, and inadequate policy support further hinder the successful implementation of CBA (Ismail et al., 2024; Juma & Patel, 2024). Therefore, despite the theoretical promise of CBA to enhance student learning and better align education with real-world skills, these barriers often prevent it from achieving its full potential in many educational systems. These challenges have resulted in inconsistencies in its application, with some teachers reverting to traditional knowledge-based assessments (Ismail et al., 2024; Kigwilu & Mokoro, 2022). Therefore, further investment in teacher training, resources, and policy reforms is necessary to ensure the successful implementation of CBA.

3. Theoretical underpinnings

This study was guided by the Concern-Based Adoption Model (CBAM) (Hall & Hord, 2020), with a specific focus on its Levels of Use component. CBAM is a widely recognized framework for understanding how individuals and organizations adopt and implement new innovations. The Levels of Use component, developed

since the mid-1970s by Hall (1975) and associates, examines the extent to which practitioners effectively utilize an innovation, ranging from non-use to proficient and advanced application. By employing this framework, the study aimed to gain insights into the extent of teachers' engagement with CBA and identify areas requiring targeted interventions to enhance implementation. According to Hall and Hord (2020), the adoption journey unfolds across eight levels, as outlined in Table 1.

Table 1
The eight Levels of Use

Levels of Use (LoU)	Description
1. Non use	The teacher is not using CBA and may not be aware of it.
2. Orientation	The teacher is learning about CBA and preparing to use it but has not yet implemented it
3. Preparation	The teacher is planning and organizing to implement CBA but has not started using it
4. Mechanical Use	The teacher is using CBA in a basic, procedural manner with limited integration into teaching
5. Routine Use	The teacher is consistently using CBA as intended, with regular application in teaching practices
6. Refinement	The teacher is refining and adapting CBA to better fit their teaching context and improve effectiveness
7. Integration	The teacher has fully integrated CBA into their teaching practices, actively collaborating with others and seeking ways to enhance its impact
8. Renewal	The teacher is reflecting on and revising their use of CBA to further innovate and improve practice

To complement the CBAM and provide additional theoretical grounding for the first objective (secondary school teachers' conceptions regarding CBA), the study used the Constructivist Learning Theory (Vygotsky & Cole, 2018). Constructivist Learning Theory highlights the role of teachers as facilitators of learning rather than mere transmitters of knowledge. Exploring teachers' conceptions through this lens can reveal their views on the shift from traditional assessments to competency-based approaches. The theory underscores how prior knowledge, beliefs, and experiences shape individuals' approaches to teaching and assessment. This perspective is critical in understanding how teachers conceptualize and adapt to CBA. Therefore, while CBAM's Levels of Use component helps to assess the practical adoption and implementation of CBA, Constructivist Learning Theory addresses the foundational beliefs and conceptions that precede or accompany those behaviors. This combination enriches the study's theoretical grounding and ensures a holistic examination of both conceptual and practical dimensions of teachers' engagement with CBA

4. Methodology

4.1 Research approach and design

The descriptive research employed a qualitative approach, which was deemed suitable for unfolding teachers' conceptions of CBA due to its ability to uncover subjective experiences and contextual influences. According to Merriam and Tisdell (2015), basic qualitative research aims to reveal participants' experiences, the meanings they attribute to those experiences, and the processes involved. This approach allows for a deeper understanding of how teachers perceive and engage with CBA, considering the nuances of their individual contexts and backgrounds. The case study design (Cohen et al., 2018) facilitated an in-depth examination of teachers' conceptions and the level of CBA implementation, enabling a thorough understanding of the challenges and opportunities in adopting CBA practices within the specific educational context of Morogoro Municipality.

4.2 Study area and participants

We recognized that teacher's level of use in new innovations vary based on their subjective experiences and the work contexts. Therefore, the study examined teachers' conception and implementation in their varied contexts. The study was conducted in Morogoro Municipality, in Morogoro region located in the eastern part of

Tanzania, chosen for its diverse educational institutions, including government-owned secondary schools. To avoid biases related to working conditions, only government secondary school teachers were included, ensuring findings reflect the centrally managed curriculum. A combination of purposive and simple random sampling techniques was employed. Simple random sampling was used to select eight (8) schools from the municipality's 32 government secondary schools, from which 16 participants (two per school) were purposefully chosen.

To be selected, a participants needed to have least two years of teaching experience to ensure familiarity with foundational teaching practices. Priority was given to teachers of Biology and Geography, aligning with the researcher's expertise to facilitate objective data interpretation. Participants varied in qualifications, including diplomas, and first and master degrees. The sample size was determined by data saturation, where sufficient information was collected to address all themes without redundancy (Fusch & Ness, 2015). The LoU framework guided interviews, ensuring an in-depth examination of teachers' familiarity with and engagement in CBA implementation.

4.3 Data collection and analysis

The data collection process was guided by the standard Levels of Use (LoU) interview protocol, which was adapted for this study. To ensure the validity and relevance of the questions, consultations were held with research supervisors as recommended by Cohen et al. (2028). This process helped refine the questions and ensure that they accurately captured the teachers' conceptions and experiences with CBA. The final interview guide included open-ended questions such as, "How do you understand the concept of CBA?" and "What challenges are facing when implementing CBA?" in addition, probing questions, such as "Can you elaborate on that?"; "Could you provide an example?" were used to gather more detailed responses. Face-to-face interviews, which lasted for about 45 minutes, were then conducted during a field visit in March 2024 with selected teachers to examine their conceptualization and use of CBA. The interviews were held at participants' preferred locations within their school compounds and conducted in both English and Kiswahili, based on the participants' preferences. For interviews conducted in Kiswahili, translations were carried out during transcription, involving a back-and-forth process to ensure accuracy, as recommended by Cohen et al. (2018). Supervisors reviewed some of the translated transcripts and collaborated with the main researcher to address any translation issues, particularly with word choice, ensuring that the translation accurately conveyed the interviewee's intended meaning.

Data analysis followed the systematic approach as advised by Squire (2023) and was performed manually. At first, interview transcripts were transcribed verbatim, and initial codes were identified by thoroughly reading and re-reading the data. Recurring patterns and ideas were manually highlighted and grouped and coded. These codes were then categorized into broader themes aligned with the study's research questions. The LoU framework was employed to categorize the codes into the corresponding stages, aligning with the eight Stages of the LoU (Hall & Hord, 2020). To ensure the validity and reliability of research instrument and data, several strategies were employed. Peer debriefing sessions with research participants, providing clear instructions to research participants, and scoring of data. More standardization of interview environment to ensure uniform conditions for administration and scoring was also made. More techniques were also employed including review and validate the themes, by research supervisors.

4.4 Ethics consideration

To protect the rights, welfare, and dignity of the participants, the researcher acquired consent from the appropriate institutional entities. Before beginning data collecting in the field, the study obtained approval from a number of organizations, including Sokoine University of Agriculture, the President's Office Regional Administration and Local Government, and Morogoro Municipal Authority. Teachers were informed regarding the purpose and methods of the study prior to their involvement, thereby guaranteeing their informed consent. Confidentiality was safeguarded, with participants guaranteed not to have their identities or affiliations revealed

in any reports (Cohen et al., 2018) To protect their anonymity, each participant was assigned an RP pseudonym (with the RP standing for Research Participant) while schools were named A through to H. Participants' autonomy was further emphasized by being made aware of their freedom to leave the study at any moment and ensuring their comfort with participation.

5. Findings and discussions

5.1 Teachers' Conceptions of CBA

Essentially the successful implementation of CBA in secondary schools depend upon the teachers' understanding of the whole concept and how it should be used. During the study, participants were asked questions about "How do you understand the concept of CBA?" and "What challenges are facing when implementing CBA?". The answers to these questions resulted to emergence of four themes, reflecting their varied understanding of CBA. These four emerged themes are described next.

5.1.1. CBA as holistic construct

Four of the sixteen research participants (RP) shared a holistic understanding of CBA. Their responses highlighted a comprehensive view of CBA as an educational assessment approach involving the evaluation of students' input, processes, and outputs. This perspective was further illustrated by the frequent use of terms such as "thorough evaluation" "process and product" and "in-depth assessment" during the interviews. For example, research participant 1 (RP1) from school C repeatedly referred to the need to assess *"students' efforts alongside their final performance,"* while RP2 from school G highlighted the phrase *"process-product assessment."* Such views underscore a consistent belief among these participants that CBA integrates both learning processes and outcomes into the evaluation framework. For example, RP2 from School G, opined extensively that,

> *"Competence-based assessment is an approach that fully evaluates students' ability to apply knowledge and skills in real-life situations. It focuses on assessing the entire learning process, including students' input, engagement, and performance. It measures completely how well students independently demonstrate understanding and practical application, assessing not only what students know but also how they use that knowledge to solve problems or perform tasks effectively".* RP2 from School G

The same view was observed by RP2 from school H who stated,

> *"Competence-based assessment is not only about grading students based on their answers but looking at how they arrived at those answers, the skills they applied. It involves assessing students' ability to apply knowledge and skills in practical contexts, rather than just recalling content".* RP2 from school H

RP2 from school H further emphasized that, *"CBA is about going beyond memorized answers",* adding that it focuses on practical demonstrations of how students use what they learned. Such perspectives reflect an awareness that CBA prioritizes the demonstration of skills, achievements, and intelligence through practical performance rather than solely testing knowledge through rote memorization.

This holistic view of CBA mirrored the principles of constructive learning, a concept highlighted by theorists such as Schuwirth and Ash (2013). Scholars who view CBA as a holistic approach emphasize evaluating students' overall learning process, including their input, engagement, and outcomes. This perspective

assesses not only students' final performance but also how they demonstrate competencies throughout their learning journey.

5.1.2. CBA as performance evaluation

Another important theme that emerged from the analysis of the transcribed teacher interviews is the understanding of CBA as performance-based. This theme highlights teachers' emphasis on evaluating students' abilities through practical, real-world applications rather than theoretical knowledge. Six (6) of the 16 participant teachers—Research participant 1 (RP1) from School E, RP1 from School G, RP1 from School D, RP2 from School C, and RP1 and RP2 from School F—described CBA as primarily focusing on measuring what students can do, emphasizing the practical demonstration of skills as the key output of learning. Participants consistently underscored the importance of measuring students' competence based on their ability to apply learned knowledge and skills in authentic, task-oriented scenarios.

RP1 from school E, articulated this conception by stating, *"Competence-based assessment is all about performance measurement"*. RP1 from school D and RP2 from school C echoed this conception, where RP1 from school D emphasized, *"It's task-oriented, focusing on how well students apply their knowledge and skills in real-world scenarios"*. Sharing the same perspective, RP2 from school C opined during the interview; questioning, *"How could you be sure that students are prepared for future roles if their performance is not assessed in real-life scenarios?"* highlighting that authentic assessments are crucial for confirming that students are genuinely capable of succeeding in their future career. Such views reflect the teachers' central idea that CBA is designed to assess students' practical abilities rather than their memorization of theoretical content. RP1 from School G resounded this understanding; stating,

> *"I see competence-based assessment as a practical evaluation method. It's not just about theoretical knowledge but about how students can demonstrate their abilities through authentic, application-based evaluations. The activities we ask them to perform must reflect real-world tasks to accurately measure their competence."* RP1 from School G

This statement reinforces the notion that CBA is grounded in application-based evaluation, where students are expected to show how they would handle situations in real life, whether in professional or everyday contexts. The teacher's focus on authentic evaluation further emphasizes the importance of using real-world tasks that mirror the challenges students will face, ensuring that assessments are both relevant and meaningful. RP1 from school F, RP1 from School E and RP1 and RP2 from school F shared a similar view. RP1 from school F, for example, illustrated it by stating,

> *"For me, competence-based assessment is performance-based. It's focused on the actual tasks and activities students complete. We move away from traditional exams and instead look at how students can perform and apply what they've learned in authentic situations, which is a much more reliable indicator of competence."* RP1 from school F.

This statement reflects a clear departure from traditional, exam-centered assessments, underscoring the practical application of knowledge as the core measure of competence. The teacher's focus on task-driven evaluation highlights the preference for assessing students' abilities to complete relevant activities that simulate real-life scenarios, thus offering a more reliable measure of their actual competencies.

Generally, terms such as "authentic-based measurements", "task-oriented evaluation", "practical evaluation", "application-based assessment", and "activity-focused assessment" were frequently used by teachers in describing their understanding of CBA, emphasizing a shared belief among participants that assessments should go beyond theoretical recall. Teachers pointed to the necessity of aligning assessments with real-world tasks that

allow students to showcase their abilities in authentic contexts.

Their conception holds significant implications for the constructivist learning theory that guided the study. Constructivism posits that knowledge is best acquired through active engagement and the application of learning in real-world contexts (Vygotsky & Cole, 2018). Teachers' emphasis on application and performance aligns well with the opinion by Wong (2020) and Akinrinola et al. (2020) in that the constructivist learning is a dynamic process of constructing meaning through hands-on experience and problem-solving.

5.1.3. CBA as a criterion-referenced Assessment

Another significant theme that emerged from the transcribed teacher interviews is the conception of competence-based assessment as criterion-referenced, which focuses on evaluating learners' mastery of specific skills or tasks against predefined criteria or standards. Unlike norm-referenced assessments, where students' performances are compared to one another, criterion-referenced CBA assesses whether students meet specific competence standards, regardless of how their peers perform. Teachers described CBA in terms of evaluating students against clearly defined performance benchmarks, with an emphasis on skill-based, proficiency-oriented measurements. Terms such as "learning outcomes," "competence-framework," "rubrics," "competence-standards," and "performance benchmarks" emerged repeatedly in participants' descriptions about CBA, underlining the structured and measurable nature of this assessment approach. RP1 from School B, RP2 from School E, RP2 from school D and RP1 from school H shared this common understanding of CBA, emphasizing the importance of individualized assessment over traditional ranking. RP1 from school B, for example, articulated,

> *"Competence-based assessment, in my perspective, relies heavily on clear performance benchmarks. By aligning our evaluations with specific competencies and learning outcomes, we create a framework that helps measure student proficiency and ensures that they have mastered the required skills."* RP1 from school B.

This statement underscores the importance of clear benchmarks in CBA, where students are assessed based on the mastery of specific skills and competencies, not in comparison to their peers but against predefined expectations. The use of learning outcomes as a measure of proficiency ensures that assessments are directly linked to the competencies students are expected to acquire.

Rubrics provide an objective framework for assessing students' competencies, ensuring consistency in evaluating whether students have achieved the necessary proficiency levels as defined by the competence standards (Olson & Krysiak, 2021). The statements of teachers in this category reflect this understanding. RP2 from school B and RP1 from school C unanimously echoed this conception, highlighting the role of rubrics in creating fair and measurable evaluation criteria. For example, RP2 from school D stated,

> *"I think of competence-based assessment as a framework that uses rubrics to measure students' mastery of specific competencies. These criteria help in determining whether students have achieved the desired proficiency and are meeting the established competence standards. It's a clear and objective way to evaluate their performance."* RP2 from school D.

RP1 from School H and RP2 from school E shared the same view, emphasizing that CBA of students focuses more on learning outcomes and competence standards. She stated, *"It is about assessing whether they have met the expected benchmarks of mastery"*, pointing out a need to use skills-based and proficiency-based measurements to evaluate their true capabilities. During the interviews, RP2 from school E questioned, *"Why*

else would we develop specific objectives if not to provide clear reference points for assessment?" which appeared to reinforce the view of CBA as an assessment that is centered on specific competencies rather than on relative student performance. It emphasizes the alignment of assessment with learning outcomes and competence standards, where the goal is to measure a student's ability to demonstrate mastery in particular skills and competencies.

In addition to these specific examples, participants frequently referenced key terms such as "competence-framework," "performance benchmarks," and "learning outcomes" to emphasize the structured nature of CBA, where assessment is designed to measure student achievement in relation to predefined standards rather than in comparison to other students. Further, phrases such as "competence-standards," "skill-based assessment," and "proficiency-based measurement" were also mentioned repeatedly, which underscored the focus on evaluating students based on their ability to demonstrate specific skills and competencies.

Overall, these teachers emphasized that CBA is not about comparing students to each other, but about assessing whether they have achieved the desired competencies and proficiency levels. This understanding reflects the reviewed literature. The criterion-referenced nature of CBA prioritizes the assessment of how well students can meet specific pre-defined learning outcomes as prescribed in official standard guide and apply their knowledge in real-world situations (Olson & Krysiak, 2021). The participants who align with this criterion-referenced understanding of CBA seem to believe that the focus should be on meeting established standards rather than ranking students (Gallardo, 2020).

By assessing students against specific, predefined competencies, CBA encourages students to focus on developing and demonstrating mastery of essential skills, rather than simply competing against their peers. This process aligns with the constructivist view that assessment should be a tool for supporting individual learners' development, helping them progress towards achieving deeper levels of understanding and competence (Vygotsky & Cole, 2018). Additionally, the use of rubrics and clear performance benchmarks is consistent with the constructivist emphasis on providing students with clear expectations and feedback, which helps guide their learning process.

5.1.4. CBA as a mere detailed testing

One notable theme identified among a few teachers in this study is that of viewing CBA as merely a more elaborate version of traditional testing. This conception, observed in responses from RP1 (School A) and RP2 (School B), reflects a limited understanding of the fundamental philosophy underpinning CBA. These teachers appeared to view CBA as a process centered on increasing the frequency of assessments, such as project-based assignments, quizzes, and written examinations, rather than recognizing the significant paradigm shift it demands in evaluating student competencies.

For instance, RP 2 from school B remarked,

> *"The idea of CBA feels like it's just about adding more assignments and conducting more frequent formative assessments, like weekly quizzes and monthly tests that count towards the final grade. I think CBA is all about checking competencies more frequently to track progress".* RP 2 from school B.

This perspective reveals a belief that frequent testing and the inclusion of in-depth questions in examinations equates to assessing competencies. If they conducted weekly quizzes and include a few open-ended questions in exams, then they managed assessing competencies. While ongoing formative assessments are indeed an integral part of CBA (Wong, 2020), this understanding oversimplifies its objectives. Teachers adhering to this view likely failed to recognize that CBA emphasizes not just the frequency of assessment but also the evaluation of students' ability to apply knowledge, skills, and attitudes in real-world contexts.

A similar perspective emerged from RP1 from School A, who described CBA as fundamentally altering exam formats.

> *"In my experience, CBA means changing the style of examinations. It's about asking open-ended questions or creating scenarios that require detailed responses. For example, we're encouraged to design questions where students must explain solutions or describe how they would apply concepts to real-world situations. It's more about how they respond, and that helps us assess their competencies."* RP1 from School A.

While this teacher demonstrated some understanding of CBA principles, his focus remained narrowly centered on examinations rather than embracing the holistic, ongoing assessment of students' skills, attitudes, and practical application of knowledge. This narrow focus underscores a misconception that CBA is primarily about modifying examination formats to include open-ended or scenario-based questions that merely demands written responses, without fully appreciating the broader goals of assessing students' ability to solve authentic, real-world problems.

Generally, the recurrence of perspectives which prioritized assessment frequency and detailed written responses emerged also in the descriptions of other interviewees. Such views highlight the fact that some teachers continue to view CBA through the traditional lens of frequent tests, projects, and formal examinations, rather than as a transformative process for evaluating competencies in dynamic and practical ways.

5.2 Levels of using CBA

The analysis of teachers' responses revealed a significant disparity between the intended adoption of CBA and its practical implementation in schools. While some teachers reported combining multiple methods, their strategies lacked the depth required for hands-on assessment, with approaches like project-based learning or real-world simulations rarely appearing in their descriptions. Overall, teachers' practices predominantly aligned with the first three stages of the CBAM's LoU framework: Non-Use, Orientation, and Preparation.

5.2.1. Entrenched Traditional assessment Practices

Analysis of teachers' responses indicates that six out of the 16 participants (RP2 from School B, RP1 and RP2 from school A, RP1 and RP2 from School D, and RP1 and RP2 from School D) were not using CBA in routine classroom activities. Their statements revealed that they predominantly designed assessments around paper-and-pen-based formats that prioritized rote memorization. These assessments focused mainly on testing factual recall, thereby neglecting essential elements of CBA such as problem-solving and hands-on activities. Terms like "written tests," "recall," and "remembering" repeatedly surfaced in their descriptions of their CBA implementation practice.

For instance, RP1, a biology teacher from School A, shared:

> *"I have heard about competence-based assessment, but to be honest, the process feels overwhelming. Our focus remains on preparing students for national exams rather than developing other skills. I'm not sure how I can fit all that into our current schedule."* RP1, a biology teacher from School A.

This teacher's view highlights the challenge of balancing national exam preparation with the demands of implementing CBA. Another participant, RP1 and RP2 from School D echoed this view. RP2 from school D, for example, emphasized:

"The methods we have used for years work for us, and we have become accustomed to them. Changing to something entirely new, especially something we do not fully understand, feels risky and uncertain. I am skeptical about the shift and prefer sticking to what I know works for the students." RP2 from school D.

The repetition of words such as "comfortable," "unsure", "risky," and "uncertain" signifies resistance to change. These teachers are entrenched in traditional assessment methods and are hesitant to adopt more innovative approaches. Presence of such teachers during transitions such as this is not surprising. Previous studies, such as those by Kigwilu and Mokoro (2022) and Ismail et al. (2024) report similar findings, suggesting that teachers with limited experience in innovative assessment practices often struggle with the implementation. These findings suggest that, according to the LoU framework, these teachers are at Stage 1, the non-user stage, where they neither understand nor engage with CBA (Hall & Hord, 2020). Interestingly, our analysis revealed that these are the participant teachers who had low experience in teaching (1-5 years of teaching).

5.2.2. Exploratory stage of CBA implementation

Nine (9) of the teachers surveyed showed initial attempts to engage with CBA, though their efforts were inconsistent and limited. These teachers recognized the potential of CBA but admitted that their attempts were minimal and often disjointed. They recognized CBA's potential to engage students, yet their lack of confidence and understanding in fully utilizing it RP2 from School H remarked,

"Students seem more engaged when I try CBA, but I feel like I'm experimenting without a clear direction. I want to improve but need more training and a clearer framework for assessment." RP2 from School H.

Key terms like "trial," "attempt," and "unsure" surfaced frequently in their responses about the application of CBA, further suggesting a beginner characteristic. One teacher, RP1 from School H, admitted, *"I only use it when preparing my students for practical National examinations"*. This quote reflects a limited, occasional use of CBA on areas they expected to emerge in National Examinations. It is an indication that CBA was not integrated in their everyday instructional practice.

In additional to conventional assessment methods, the only practices that these teachers occasionally attempted were oral presentations, simple laboratory activities, and concept map creation. For instance, RP1from School B shared,

"I use oral presentations occasionally, especially when we need to prepare for practical exams. It's a simple way to assess students' understanding, but it feels like a basic step toward competence-based assessment." RP1from School B.

Although these teachers were trying to implement CBA, the way they described their practices suggested a beginner's approach, with limited engagement in the more complex aspects of CBA, such as fostering critical thinking or creativity. RP2 from School C exemplified this, stating,

"I tried using concept maps, but I ended up grading them based on completeness, not on the critical thinking behind them. I'm not yet sure how to assess creativity or deeper cognitive skills."

Another example is RP2 from School F, who gave an account of a group project on environmental

conservation, stated.

"I assigned a group project on environmental conservation. While grading, I focused more

on the volume of content. Some students are very lazy here." RP2 from School F.

Such descriptions reflect a narrow application of CBA, focusing on elements of assessment that are less aligned with the collaborative and analytical competencies emphasized by the framework. Findings such as these are also reported in previous research in Tanzania Makunja (2026) and in other developing countries (Akinrinola, 2020). Such practices suggest that these teachers were experimenting with CBA, but without fully engaging with its core principles, indicating that they were still in the Preparation Stage of LoU, where teachers begin to apply new methods but lack consistent and effective implementation (Hall et al., 1975; Hall & Hord, 2020). They were still learning about new practices but have not yet integrated them into a systematic approach.

5.2.3. Preparation Stage of CBA implementation

Two research participants (RP1 from school C, RP2 from school G, and RP1 from school F) demonstrated notable efforts to align their assessments with CBA principles by incorporating practical and problem-solving tasks into their teaching. Phrases like "role play," "group projects," "practical tasks," and "observation" were frequently used, reflecting their genuine attempts at implementing CBA strategies. For instance, RP1 from School F stated,

"In my class, students are tasked with creating visual diagrams that represent the

relationships between different concepts. This allows them to demonstrate both their

understanding and their organizational skills, as they connect various elements of the

lesson to real-life scenarios." RP1 from School F.

Additionally, RP2 from school G observed that when students were involved in practical tasks, they showed significant improvement in problem-solving and participation. He explained,

"I have noticed that when students are given practical, hands-on tasks, such as designing

simple experiments or group projects, they become more engaged and develop a deeper

understanding of the content. These experiences allow them to practice critical thinking

and collaborate with their peers in ways that traditional methods simply can't." RP2 from

school G.

Despite these efforts, however, evidence suggests that the teachers' attempts at CBA were often isolated and poorly integrated. Commonly used phrases like "difficulty with criteria" and "unclear assessment rubrics" point to the ongoing challenges they faced. Many teachers indicated that they lacked clear frameworks for evaluating key competencies. RP1 from school C shared a concerning example:

"During a lab exercise where students measured soil pH, I ended up grading them only on

the correctness of their measurements. I wanted to assess their hypotheses and teamwork,

but without clear rubrics or guidelines, I didn't know how to do so fairly or consistently."

RP1 from school C.

This teacher remarked further that although designing tasks such as debates and group projects sounds straightforward, it is hard to judge the students' performance objectively without a solid framework. He emphasized, *"I often feel unsure about what specific skills to focus on and how to assess them comprehensively".*

Such comments are consistent with the LoU framework's categorization of these teachers at the Preparation stage. They exhibit an awareness of CBA's value and are actively trying to adapt their practices, but their implementation is still rudimentary. These findings reflect those reported by Kigwilu and Mokoro (2022) and Juma and Patel (2024) who found the CBA limitation brought about by the lack of structured guidelines, clear assessment rubrics, and consistent frameworks for evaluating diverse competencies.

This observation highlights that while some teachers have moved beyond simple orientation and are making strides toward preparation, the complexity of CBA demands further development of both their skills and resources. The clear presence of "difficulty with criteria" as a recurring concern signifies that teachers are in the early stages of implementing CBA, where they are exploring and experimenting but have not yet established comprehensive and consistent systems for assessment. This analysis aligns well with the LoU framework (Hall & Hord, 2020), which characterizes the Preparation stage as one where individuals are beginning to prepare for more effective use but are still refining their practices and overcoming initial barriers to implementation.

6. Conclusion

This study has explored the conceptions and implementation practices of CBA among secondary school teachers in Tanzania. The findings reveal that teachers' understanding of CBA varies, with some embracing a holistic, performance-based, or criterion-referenced approach, while others continue to rely on traditional assessment methods. Those with a more comprehensive conception of CBA emphasized the importance of evaluating both the learning process and the outcomes, aligning with constructivist principles that focus on skill development, practical application, and student empowerment.

Despite the theoretical support for CBA, the practical implementation in classrooms shows significant challenges. Many teachers are at the early stages of adopting CBA, often remaining at the non-use or preparation stages, as outlined in the CBAM's LoU framework. Some have made exploratory attempts to integrate CBA principles, but their practices remain limited and inconsistent, primarily due to a lack of clear guidelines, assessment rubrics, and professional development opportunities. Additionally, the pressure of national exams and entrenched traditional methods contribute to resistance and slow adoption.

6.1 Implications and recommendations

This study underscores the critical need for targeted interventions to support the effective implementation of Competence-Based Assessment (CBA) in Tanzanian secondary schools. Variability in teachers' conceptions of CBA and challenges in applying it highlight the importance of robust professional development programs focusing on both theoretical and practical aspects. Clear guidelines, comprehensive training, and standardized rubrics are essential to aid teachers' transition from traditional assessment to CBA. Teachers should also foster critical thinking, problem-solving, and self-directed learning among students to prepare them for CBA demands while reducing resistance through clear communication about its benefits. Systemic challenges such as large class sizes, limited resources, and insufficient teacher support must be addressed. Policymakers should prioritize creating a supportive infrastructure with adequate resources and incentives to enhance adoption. Without these measures, the potential of CBA to improve educational quality and student outcomes may remain unrealized

6.2 Limitations

This qualitative and descriptive study, conducted in government secondary schools in Morogoro Municipality, Tanzania, may not be generalizable to other regions, private institutions, or rural areas where different contextual factors could influence the implementation of CBA. The findings are also limited by the subjective experiences and perspectives of only a few Biology and Geography teachers, which likely introduced bias. To deepen understanding, future studies should explore CBA in diverse educational settings and include teachers of other subjects to capture a wider range of challenges and opportunities. Expanding the sample size and diversifying teacher profiles would enhance the comprehensiveness of CBA adoption studies. Additionally,

future research could investigate how teacher preparedness, pedagogical training, and contextual factors influence CBA implementation across various regions. Longitudinal studies might also provide insights into how CBA evolves over time, assessing its impact on student learning outcomes and the quality of education.

7. References

Adamson, A. F., & Darling-Hammond, D. H. L. (2014). *Beyond the bubble test: How performance assessments support 21st century learning*. New York (NY): Jossey-Bass.

Akinrinola F., Ogegbo, Emmanuel & Adewusi (2020). Competency-Based Education in Africa: Exploring Teachers' Perceptions, Understanding, and Practices. *Teacher Education through Flexible Learning in Africa,* 2(1), 1-24. https://doi.org/10.35293/tetfle.v2i1.86

Bunda, M. A., & Sanders, J. R. (1979). *Practices & Problems in Competency-Based Measurement.* London: National Council on Measurement in Education

Christ, T. J., Keller-Margulis, M. A., & Marcotte, A. M. (2014). *The basics of curriculum-based assessment. In Academic assessment and intervention*. New York (NY): Routledge.

Cohen, L., Manion, L. & Morrison, K. (2018). *Research Methods in Education (8th Ed.).* London: Routledge.

NACTVET (2022). *Competency level descriptors and associated credits at each level of award*. Author. Retrieved December 15, 2024, from https://nactvet.go.tz/storage/public/files/COMPETENCY%20LEVEL%20DESCRIPTOR.pdf

Fusch Ph D, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *Qualitative Report,* 20, 1408-1416.

Gallardo, K. (2020). Competency-based assessment and the use of performance-based evaluation rubrics in higher education: Challenges towards the next decade. *Problems of Education in the 21st Century,* 78(1), 61-79.

Hall, G. E., & Hord, S. M. (2020). *Implementing change: Patters, principles, and patholes (5th ed.).* New York (NY): Pearson

Hall, G. E., Loucks, S. F., Rutherford, W. L., & Newlove, B. W. (1975). Levels of use of the innovation: A framework for analyzing innovation adoption. *Journal of teacher education,* 26(1), 52-56. https://doi.org/10.1177/002248717502600114

Ishemo, R. (2021). Progress of the implementation of the learner centered approach in Tanzania. International *Journal on Integrated Education,* 4(4), 55-72.

Ismail, M., Shavega, T. J., & Kigobe, J. (2024). Competence-Based Assessment in Pre-primary School Classrooms: The Case of Pre-primary Schools in Dar es Salaam Region, Tanzania. *International Journal of Research in Social Science and Humanities (IJRSS)*, 5(6), 115-123. https://doi.org/10.47505/IJRSS.2024.6.9

Juma, H., & Patel, G. S. (2024). Competence-based assessment in Tanzanian teacher education in the Fourth Industrial Revolution: A comprehensive analysis. *Journal of Issues and Practice in Education,* 16(1), 200-224.

Kigwilu, P. C., & Mokoro, D. K. (2022). Teachers' Assessment Practices in Implementing Competence Based Curriculum in Secondary Schools in Arumeru District of Tanzania. *East African Journal of Education Studies,* 5(2), 324-333. DOI: https://doi.org/10.37284/eajes.5.2.792

Kinyota, M. (2020). The status of and challenges facing secondary science teaching in Tanzania: a focus on inquiry-based science teaching and the nature of science. *International Journal of Science Education,* 42(13), 2126-2144.

Komba, S. C., & Mwakabenga, R. J. (2019). Teacher professional development in Tanzania: Challenges and opportunities. *Educational leadership,* 27(1).

Makunja, G. (2016). Challenges facing teachers in implementing competence-based curriculum in Tanzania: the case of community secondary schools in Morogoro Municipality. *International Journal of Education and Social Science,* 3 (5), 30-37, 2016

Makwinya, N. M. (2022). Are school leaders in Tanzania effective in fostering instructional change? Unveiling

this black box from the feedback perspective. *European Journal of Humanities and Social Sciences,* 2(2), 71-78.

Makwinya, N. M., McKinnon, D. H., & Lummis, G. W. (2022). Depicting science teachers' concerns regarding the Tanzanian inquiry-based science curriculum. *International Journal of Science Education,* 44(12), 1978-1993.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation.* John Wiley & Sons.

Mgaiwa, S. J., & Milinga, J. R. (2024). Teacher preparation and continuous professional development: A review of 'missing links. *Social Sciences & Humanities Open,* 10, 100990.

Ministry of Education and Vocational Training (MoEVT) (2007). *Curriculum for ordinary level secondary education in Tanzania (Edition of 2013).* Dar es Salaam: Government Press.

Mtitu, E. A. (2014). *Learner-centred teaching in Tanzania: Geography teachers' perceptions and experiences* Unpublished Doctoral dissertation, Victoria University of Wellington, New Zealand.

Munoz, R.D. & Araya D, H. (2017), The Challenges of competence-based assessment in the education field. *Educ. Pesqui., São Paulo,* 43(4), 1073-1086. http://dx.doi.org/10.1590/S1678-4634201706164230

Mwashighadi, M. P., & Kitainge, K. (2023). Availability of competence-based teaching/learning materials, tools, and equipment at Kenya's coastal region TVET institutions. *African Journal of Education, Science and Technology,* 7(3), 479-488.

Nzima, I. (2016). *Competence-Based Curriculum (CBC) in Tanzania: Tutors' understanding and their instructional practices.* Unpublished Doctoral dissertation, Linnaeus University Press.

Olson, J. M., & Krysiak, R. (2021). Rubrics as tools for effective assessment of student learning and program quality. In Curriculum Development and Online Instruction for the 21st Century (pp. 173-200). IGI Global.

Schuwirth, L., & Ash, J. (2013). Assessing tomorrow's learners: in competency-based education only a radically different holistic method of assessment will work. Six things we could forget. *Medical teacher,* 35(7), 555-559.

Squires, V. (2023). Thematic analysis. *In Varieties of qualitative research methods: Selected contextual perspectives (pp. 463-468).* Springer International Publishing.

Tanzania Institute of Education. (2013). Improvements and reforms of curricula from the year 1961 to 2010. Tanzania: Author.

United Republic of Tanzania (URT) (2014). *Education Policy 2014 (Revised 2023).* Dar es Salaam: Government Printers

Vygotsky, L., & Cole, M. (2018). Lev Vygotsky: Learning and social constructivism. *Learning Theories for Early Years Practice.* 66, 58.

Wong, S. C. (2020). Competency definitions, development and assessment: A brief review. *International Journal of Academic Research in Progressive Education and Development,* 9(3), 95-114. DOI:10.6007/IJARPED/v9-i3/8223

Zamda, I., Mwakapina, J., & Nyinondi, O. (2024). Competence-based curriculum in practice: English curriculum implementation prospects and challenges in Mtama District secondary schools in Tanzania. *International Journal of Research,* 13 (5), 29-39, 2024.

A case study on the narrative skills of a high-functioning autism spectrum disorders child

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Abstract

This study investigates the oral narratives of a primary school student with High-Functioning Autism (HFA) compared to a Typically Developing (TD) peer, focusing on narrative retelling abilities. A two-episode narrative task was administered, and analyses targeted macrostructural elements (e.g., story structure: setting, characters, goals, attempts, conclusions) and microstructural aspects (e.g., narrative length, lexical diversity, syntactic complexity, and connective use). Results showed comparable verbal working memory and expressive vocabulary between participants but significant differences in Theory of Mind and grammaticality. At the macrostructural level, the narratives produced by the HFA student displayed minor differences, notably the omission of the narrative setting. The most pronounced distinctions emerged in the microstructural analysis. While the HFA student's narrative was unexpectedly longer, it exhibited lower syntactic complexity. Both participants achieved similar lexical diversity; however, the HFA student demonstrated more ambiguity in character references. These findings highlight specific challenges for children with HFA in narrative production, particularly in syntactic complexity and clarity. Interventions targeting these areas may enhance narrative skills, supporting academic and social communication. Additionally, this research underscores the importance of analyzing both macrostructural and microstructural aspects to obtain a comprehensive understanding of narrative abilities in school-aged children with HFA. By identifying nuanced strengths and weaknesses, this study contributes to the development of targeted strategies to support the narrative competence of children with ASD.

Keywords: autism spectrum disorders, high-functioning ASD, oral narratives, macrostructure, microstructure

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1. Introduction

Narration is a crucial form of communication used in everyday life, allowing individuals to express their personal experiences, feelings and thoughts (Karmiloff & Karmiloff-Smith, 2002). A high-quality narrative requires not only knowledge of the story's overall structure (setting, goal, attempt, conclusions), but also knowledge about various linguistic aspects (e.g. vocabulary or morphosyntax) (Aksu-Koç & Aktan-Erciyes, 2018; Košutar, Kramarić & Hržica, 2022). The knowledge of all these aspects in order to produce a complete narrative is a complex and demanding process, especially for children, and takes significant time to develop (Košutar et al., 2022). Narrative ability has been primarily investigated through the analysis of the two fundamental levels underlying narrative structure, namely macrostructure and microstructure (Gagarina et al., 2012, 2019). Macrostructure focuses on evaluating children's cognitive abilities to produce a coherent, well-structed narrative. In contrast, narratives are assessed at the microstructure level according to the linguistic skills required to create a coherent story (Justice et al., 2006; Manolitsi & Botting, 2011; Košutar et al., 2022).

Research examining the above two levels of narrative (macrostructure and microstructure) in children with Autism Spectrum Disorder (ASD) has produced contradictory results, leading to a lack of consensus about their narrative skills. The available literature indicates deviations from typical development at various points of the macro- and microstructure. For instance, some researchers have argued that children with ASD produce narratives that lack coherence and syntactic complexity (Peristeri, Andreou & Tsimpli, 2017), while others have not observed such deviations (Tager-Flusberg & Sullivan, 1995). This study aims to examine the narrative skills of a 9-year-old child with High-Functioning Autism (HFA) at both macrostructural and microstructural levels, comparing these skills with those of an age-matched, typically developing (TD) peer to identify potential differences.

2. Assessment of narrative skills

Oral or written narratives can be elicited in narrating or retelling modes using a variety of techniques, such as picture prompts or video stimuli (Andreou, 2015). The most effective way to analyze narratives is related to both macro- and microstructure levels (Liles, Duffy, Merritt, & Purcell, 1995). A story's macro-structure is defined as how its grammatical elements—such as characters, settings, and plot—are arranged and made sense of in order. Lexical semantic knowledge, structural language proficiency, pro nominal referents and narrative register are examples of micro-structure level skills (Justice et al., 2006; Manolitsi & Botting, 2011).

More specifically, the macrostructure of a narrative is its overall hierarchical organization and coherence. It is defined by the setting (time, place), the episodic framework of the story's plot, the sequence in which events unfold, and the internal motivations or reactions of the protagonists to those events (Liles et al., 1995; McCabe & Peterson, 1984; Tsimpili et al., 2016). All stories, according to the story grammar model, should have a setting and an episode system. The setting should contain background information, character introductions, and contextual statements, while the episode system should contain the following: (a) an initiating event that spurs the main characters into the action; (b) internal plans (i.e., planned actions to accomplish a goal and solve the problem); and (c) outcomes (i.e., success or failure in achieving a goal). Every episode needs each of these three essential elements to be considered complete (McCabe & Peterson, 1984). Research has indicated that the quantity of significant plot points identified in oral storytelling is growing, and that the capacity to communicate a character's feelings or inner monologues is completely developed by the time a child reaches the age of ten (Bishop & Donlan, 2005).

It has also been suggested that the effective creation of characters' emotions is dependent on Theory of Mind (ToM) skills (Tomasello, 2003; Lorusso et al., 2007). Since the narrator needs to understand the protagonist's inner thoughts and motivations for produce a complete, high- level narrative, ToM plays an important role in predicting and explaining the behavior of others (Norbury & Bishop, 2003). In their research, Tager- Flusberg and Sullivan (1994) identified in TD preschoolers and children with ASD a link between a false-belief test, which is used to assess ToM, and a test of the ability to explain human actions.

Unlike macrostructure, microstructure is associated with the syntactic and lexical aspects of the story. It has been characterized in terms of both productivity and complexity (Hughes, McGillvray, & Schmidek, 1997). As reported by Tsimpli, Peristeri, and Andreou (2016) (2016) linguistic form, has been evaluated using the mean length of utterance in words (Miller, 1981), the number of C-units (i.e., one main clause with all dependent clauses; Hunt, 1965), and various measures of sentence complexity, such as grammatical forms (e.g., verbal tense/aspect/voice inflectional morphology), lexical forms (e.g., lexical aspect and manner of motion/cause verbs), and lexicogrammatical features (e.g., locative particles, prepositional phrases, and connectives; Nippold, Hesketh, Duthie, & Mansfield, 2005; Schuele & Tolbert, 2001; Scott & Stokes, 1995). At the same time, Type–Token Ratio (TTR) measures lexical diversity by dividing the number of unique words (types) by the total words (tokens) in a language sample. It helps assess the variety in a child's vocabulary and is commonly used to evaluate language development (Templin, 1957; Miller & Klee, 1995). A related metric, the Mean-Segmental Type–Token Ratio (MSTTR), is calculated by averaging the TTR across consecutive segments of a text. This approach, often used in linguistic studies, provides a more stable measure of lexical diversity by accounting for variability within text segments (Koizumi & In'nami, 2012; Dosi, Kouki, Lada, & Keulen, 2024).

2.1 Narrative skills in typical development children

Narrative ability develops before reading and involves oral or written sequences of events that either come from one's imagination or from real life (Lynch et al., 2008) and they are connected chronologically and causally to form a cohesive whole (Boudreau, 2007). These sequences are based on understanding and proper use of story structure (Lynch et al., 2008). It has been demonstrated that the capacity to produce a high-quality narrative requires the perception of linguistic, cognitive and social domains (Tager-Flusberg & Sullivan, 1995). An excellent story has favorable correlations with literacy, structural language, and social skills; also, enhancing storytelling abilities in TD children is linked to increased more developed reading comprehension (Johnston, 2008). To organize the story's events in a clear and intelligible manner while considering the listener's needs for comprehension of the story's setting, characters, and resolutions (Rumpf, Kamp-Becker, Becker, & Kauschke, 2012), a skilled narrator must also consider the perspectives of the story's characters in order to shed light on their motivations and actions. Children's stories therefore represent a blend of mental and verbal knowledge (Tsimpli et al., 2016).

In both academic and daily social communication contexts, narratives are crucial. Semantic skills are required to communicate meanings through a variety of vocabulary, syntactical skills are needed to produce sentence-level expressions, and linguistic strategies are needed too to connect sentences and convey relationships between them in well-formed oral narratives (Mäkinen et al., 2014). Furthermore, the storyteller must convey the story logically, keep the listener's requirements in mind, and create a mental model of the tale using the provided context (such as the physical background and prior knowledge). As a result, the storyteller should narrate the story with just the right amount of detail and employ allusions and terminology that are sufficiently authentic (Mäkinen et al., 2014). According to Cummins (2009), narratives appear to combine the pragmatic and linguistic components of language, providing a wealth of related language examples for evaluation.

It is perceived that creating a story is a difficult process. However, children from age of 3 or 4 are capable of developing stories with basic frameworks (Košutar et al., 2022), but only around the age of 9 can produce story with elaborated language, such as employing connectives, applying modifying, and developing discourse (Reilly, Losh, Bellugi, & Wulfeck, 2004; Ukrainetz et al., 2005; Kantzou, 2010). Preschoolers are unable to arrange their

thoughts in an episodic fashion (Petersen et al., 2014). Rather, they establish chronological or thematic connections between those concepts (Baldimtsi, 2017). Children between the ages of 5 and 7 begin to develop the ability to create organized narratives, structuring their stories around schemas, locations, and episodic storylines with clear beginnings, middles, and ends (Khan et al., 2016; Zacks, 2020). By ages 9 to 10, their narrative skills typically improve, approaching those of adults (Motsiou, 2014). However, some children may still struggle to achieve the expected levels of narrative complexity even by age 11 (Diakogiorgi et al., 2021).

According to Blankenstijn and Scheper (2003), the microstructure of TD children's narratives takes a long time to form and is still developing by the age of 10. Young TD children's narratives have shorter length and less variance in content terms as compared to older children (Botting, 2002; Justice et al., 2006). Children start to develop more complicated concepts and a diverse vocabulary around the age of 4 (Elbers & van Loon-Vervoorn, 2000; Justice et al., 2006; Kaderavek & Sulzby, 2000; Reilly et al., 2004). Character reference tracking also takes a long time to develop (Karmiloff-Smith, 1985; Wigglesworth, 1997).

2.2 Narrative skills in ASD

The storytelling abilities of children with ASD have not been extensively studied, and the available research contacted has had inconsistent results (Norbury & Bishop, 2003; Diehl, Bennetto, & Young, 2006). Therefore, such result raises the question whether children with ASD would find this kind of work difficult (Norbury & Bishop, 2003). If so, this is probably due to deficits in central cohesion. As a result, they face difficulties in the overall structure and in organizing the story coherently. Individuals with ASD have a propensity to manage input stimuli more locally than globally, and they are less adept at extracting contextual notions. In tests of narrating a story through pictures, children with ASD may not be able to tell the story as a coherent sequence of events but simply describe the objects they see in the picture (Loveland & Tunali, 1993; Norbury & Bishop, 2003). In addition, some research suggests that children with ASD produce narrative with greater ambiguity (Manolitsi & Botting, 2011; Novogrodsky, 2013; Suh et al., 2014), while the use of words related to emotions (Siller, Swanson, Serlin, & George, 2014) and dialogues between the heroes of the story is limited (Stirling et al., 2017). At the same time, in many cases they use language in a way that does not fit the context (Losh & Capps, 2003). The pragmatic deficits exhibited by ASD are likely to be related to the above peculiarities in their narrative (Kjelgaard & Tager-Flusberg, 2001; Tager-Flusberg, Paul, & Lord, 2005).

The use of terms that reveal emotions in the narratives of children with ASD has been associated with their performance on ToM tests, which examine their ability to understand the mental state of others (Peristeri et al., 2017), such tests being for example pretend play (Blanc, Adrien, Roux, & Barthélémy, 2005) and false-belief (Baron-Coren, Leslie, & Frith, 1985). Research has not yet offered a comprehensive picture of the connections between storytelling repetition and ToM (Kimhi, Kadosh & Tubul-Lavy, 2022). Capps, Losh and Thurber (2000) discovered that higher first-order ToM abilities[1] of children with ASD were associated with superior macrostructure ability to retell a story from a picture book. Siller et al. (2014) found a similar relationship between a series of first- and second-order ToM tests and children's narrative recounting, particularly their use of emotional terminology. They said that these results provide credence to the theory that children with ASD may have difficulties telling stories because they struggle to understand the inner states of others. Conversely, Losh and Capps (2003) found no correlation between children with ASD's second-order ToM and their capacity for narrative. Thus, the nature of the connections between tale recounting and ToM is still up for debate (Kimhi et al., 2022).

Regarding microstructure, Tager-Flusberg and Sullivan (1994) compared the narratives skills of children

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[1] The concept of ToM has been further refined by distinguishing between first- and second-order beliefs (Baldimtsi, 2017). A first-order belief refers to an individual's belief about something in the external world, whereas a second-order belief pertains to an individual's belief about another person's belief (Miller, 2012).

with ASD relative to TD children matched for nonverbal and language abilities. Their analysis revealed that children with ASD did not exhibit significant deficits in terms of the total number of words and unique words or the number of sentences used. Additionally, no significant differences were observed in the syntactic complexity of the sentences used by the two groups. This finding is consistent with descriptions of children with HFA as possessing relatively intact syntactic abilities (Minshew, Goldstein, & Siegal, 1995). However, subsequent research has indicated that the narratives of children with ASD are characterized by less syntactically complex sentences compared to their TD peers (Eigsti, Bennetto, & Dadlani, 2007; Marinis, Terzi, Kotsopoulou, & Francis, 2013; Norbury, Gemmell, & Paul, 2014).

Norbury and Bishop (2003), also, have studied narrative skills in three different clinical groups, one of which involved HFA (n=12) compared to TD children (n=18) with similar cognitive and language level. Children's narrative skills were assessed through the creation of a story based on a picture book. The results showed that HFA group did not differ from TD in terms of number of words they used, demonstrating that they provided the same amount of information. However, in contrast to Tager- Flusberg and Sullivan (1994), they observed that HFA children used simpler syntax. Additionally, no differences in the structure of the story were identified, showing that both participants with HFA and TD children understood the main theme of the story and the HFA group generally produced a coherent narrative. Nevertheless, there were ambiguities in their narratives as they often did not use the appropriate reference.

On the other hand, Diel et al. (2006) analyzing the narratives of 17 children with HFA and 17 TD peers, with the same language and cognitive abilities, found no differences in the length of the story or the syntactic complexity chosen by the two groups, nor in their understanding of the "gist of the story". The deficits of children with HFA relative to the TD group concerned the coherence of the story, since they produced less coherence narratives. Similarly, in a recent study, Peristeri et al. (2017) studied narrative skills in two groups of children with ASD (mean age: 9,2) compared to TD peers. The first group included children with ASD and high language skills (HFA), while in the other, children with ASD were characterized by low languages skills. The assessment of narratives skills was carried out through oral repetition of the story named 'Giraffe/Elefant story'. The results showed that macrostructure wise, both children with HFA and TD peers used words that denote emotions. The differences were found in the cohesive structure of the story, with the two ASD groups performing lower than their peers without ASD. In terms of microstructure, no group differed from the TD in terms of word diversity. Also, the HFA group did not differ significantly in syntactic complexity, demonstrating that syntactic complexity is associated with language ability in ASD. However, Carlsson et al. (2020), argued that language competence is not sufficient to justify simpler syntax in ASD, as their study showed that although children with ASD and TD peers had the same language level, the ASD group produced shorter and simplified sentences.

The inability of children with ASD to produce a coherent narrative and connect the events of the story was also identified by Kimhi et al. (2022), but there are no differences in the amount of story information they provided. Mäkiken et al. (2014), in their study of Finnish-speaking children with ASD and typically developing peers aged 5–10, further emphasized the challenges faced by children with ASD in drawing conclusions. Moreover, they observed that the ASD group used fewer complex sentences. Contrary to previous research (e.g., Norbury & Bishop, 2003), no differences in referential accuracy were found. Generally, the repetition of story, including the setting, characters, events, results, but also the motivations and heroes' thoughts, is a process of increased difficulty required high pragmatic skills. However, the difficulties children with ASD face in this area obviously affect the ability to produce coherence structure in a narrative regardless of language level (Peristeri et al., 2017).

Dosi and Boni (2023) explored the pragmatic and language skills of Greek-speaking children with HFA. The study involved a sample of three children with HFA, aged 9, 11, and 15 years. Among the assessment tools employed was a narrative task designed to evaluate macrostructural and microstructural aspects of storytelling, as well as ToM abilities. The findings revealed that, although all participants demonstrated a basic capacity to follow a logical sequence of events, their narratives frequently lacked cohesion and coherence. Specific

challenges included inadequate differentiation of characters, omission of mental state references, and an emphasis on action-related details at the expense of emotions and thoughts. Developmental differences were particularly evident, with older participants showing greater skill in various aspects of narration, such as character description, the use of subordinate structures, and the incorporation of temporal markers. However, pragmatic challenges persisted across all ages, particularly in character reference and perspective-taking. Semantic limitations were also identified, such as difficulties in lexical retrieval and reliance on a restricted core vocabulary. Additionally, the youngest participant exhibited morphosyntactic deficits, including grammatically incorrect utterances, which may suggest the presence of comorbid language impairment. The findings of this research highlight the unique and diverse needs of individuals with ASD, emphasizing the importance of targeted interventions to support their linguistic and pragmatic abilities.

In summary, the results regarding narrative skills in ASD are conflicting. On the one hand, some research suggests that children's stories with ASD are shorter (King, Dockrell,, & Stuart, 2013; Siller et al., 2014) and syntactically simple (Norbury & Bishop, 2003; King et al. 2013; Mäkiken et al., 2014; Carlsson et al., 2020), without much coherence (Diehl et al., 2006; Peristeri et al., 2017; Kimhi et al., 2022), with a reduced number of different words or mental state terms (Tager Flusberg, 1995; Capps et al., 2000; Siller et al., 2014) and with a tendency to handle information more locally than globally (Loveland & Tunali, 1993; Diehl et al., 2006;). On the other hand, other studies have recommended that narratives in ASD do not differ in productivity, i.e. the number of words or sentences they use (Novogrodsky, 2013), the syntactic units (Norbury & Bishop, 2003; Peristeri et al., 2017), syntactic complexity, especially when groups fit carefully, in terms of language and cognitive ability (Tager-Flusberg & Sullivan, 1994; Norbury & Bishop, 2003; Diehl et al., 2006; Mäkinen et al., 2014). It is possible that these contradictory results are due to different methodologies among studies (Baldimtsi, 2017), which focus on different aspects of storytelling such as story retelling or creating and preserving stories (Kimhi et al., 2022), as well as differences in the nature of the disorder itself.

3. The present study

3.1 Objectives, Research Questions, and Predictions

The purpose of this research is to examine the narrative skills of a child with HFA compared to his TD peer. To achieve this objective, a storytelling test was administered to the children in a retelling mode. Our analysis concentrated on both macrostructure, which includes the overall organization of narrative, and microstructure, exploring the finer aspects of linguistic use. We developed specific research questions and associated hypotheses to guide this investigation.

1.   Are there any differences in the macrostructure of the narratives (e.g. setting, characters, events, conclusions) between the participants?

We expect that the HFA participant is likely to perform lower overall on structure of the story (macrostructure) (Peristeri et al., 2017) and that his narrative may contain several character references ambiguities compared to TD peer (Norbury & Bishop, 2003; Manolitsi & Botting, 2011; Novogrodsky, 2013; Suh et al., 2014).

2.   Is the use of ToM- related words observed in both participants' narratives?

We anticipate that both participants will produce words that indicate emotions (Peristeri et al., 2017), but the number of these words may be limited for the child with HFA (Siller et al., 2014; Dosi & Boni, 2023).

3.   Are there any differences in the microstructure of narratives, specifically in lexical diversity, syntactic complexity and the use of connectives for accurate referencing?

We assume that the two participants will probably differ neither in narrative length (Norbury & Bishop,

2003; Diehl et al., 2006) nor in lexical diversity (Peristeri et al., 2017). However, obvious differences are anticipated in terms of syntactic complexity, as the participant with HFA is likely to produce sentences with simpler syntax (Norbury & Bishop, 2003; Mäkinen et al., 2014; Terzi, Marinis, Kotsopoulou & Francis, 2014; Carlsson et al., 2020).

3.2 Participants

This study examined the narrative skills of two 9-year-old monolingual Greek boys, both attending the 4th grade in a public primary school in Thessaloniki. One of the participants, diagnosed with HFA, received an official diagnosis of ASD from the Interdisciplinary Assessment, Counselling, and Support Centers (KEDASY) in Thessaloniki. Participants were matched based on their chronological age and socioeconomic status.

3.3 Materials

Before administering the narrative test, several preliminary assessments were conducted to evaluate the children's cognitive and linguistic abilities. These included measuring mental age through a non-verbal intelligence test (Raven et al., 2008), verbal working memory using a digit backwards test (Alloway, 2007), grammatical proficiency via a sentence repetition task (Tsimpli, Andreou & Peristeri, 2019), vocabulary knowledge through an expressive vocabulary test (Vogindroukas et al., 2009), and ToM using a first-order false belief task based on Baldimtsi (2017). The following section provides a detailed overview of these assessments.

3.3.1 Background tests

Non-verbal intelligence task

To assess fluid (non-verbal) intelligence, the standardized Greek adaptation of the Raven's Colored Progressive Matrices (Sideridis, Antoniou, Mouzaki, & Simos, 2015) was employed. This psychometric instrument, designed for children aged 4 to 12 years, comprises 36 problems divided into three subscales (A, AB, B), each consisting of 12 items. The tasks involve non-verbal stimuli, such as geometric shapes or combinations of shapes. During the test, the examiner presents an incomplete non-verbal stimulus, and the participant selects, from six colored images, the one that best completes the given pattern. The tool is widely recognized for its reliability and validity in measuring non-verbal reasoning and problem-solving abilities in children.

Digit span backwards task

The Reverse Digit Recall Test (Alloway, 2007) is designed to evaluate verbal working memory. The assessment comprises six levels, each containing six sequences of two to seven digits. During the test, the examiner orally presents a sequence of digits, and participants are required to repeat the digits in reverse order. Progression to the next level occurs if the participant provides at least four correct responses out of six. The test is discontinued after three consecutive errors within a given level. This tool is widely utilized for its efficacy in assessing the capacity for verbal information manipulation and working memory processing.

Sentence repetition task

To assess the language proficiency of the two participants, with an emphasis on grammar, a Sentence Repetition Test was utilized (Tsimpli et al., 2019). This test comprises 32 sentences, each read aloud by the examiner, which participants are required to repeat verbatim while preserving grammaticality. The sentences encompass a range of grammatical structures, including simple declaratives (SVO sentences), sentences with negation, clitic left-dislocation structures, coordination, complement clauses, relative clauses, adverbial clauses, and wh-clauses. This approach offers valuable insights into the participants' grammatical competence. Notably, the focus of this task was not on how accurately the sentences were recalled but solely on whether they were grammatical.

Expressive vocabulary task

The Expressive Vocabulary Test is the Greek adaptation of the English Word Finding Vocabulary Test (4th Edition) by C. Renfrew (1968), standardized for Greek by Vogindroukas et al. (2009). The test consists of 50 images depicting objects and concepts familiar to children, often derived from everyday life, fairy tales, or television programs. During administration, the examiner presents each image to the participant, who is required to name the depicted item. The test is discontinued if the participant makes five consecutive errors. This tool is widely used to assess expressive vocabulary and lexical retrieval in children.

Theory of Mind task

To evaluate ToM, a first-order false belief task was administered, specifically an unexpected content task (Caprice box task), based on Baldimtsi (2017) and adapted for the purposes of the study. This task assesses children's ability to attribute false beliefs to others and to recognize their own false beliefs (Hogrefe, Wimmer, & Perner, 1986). The task involved the use of a box containing pencils. The examiner presented the closed box to the child and posed an initial knowledge-based question: "What do you think is in this box?" After the child responded, the box was opened to reveal its actual contents—pencils. The box was then closed, and the child was asked a false-belief question: "What did you think was inside the box before I opened it?" Two additional questions followed: "Your friend hasn't seen inside the box. What do you think they would say is inside the box before opening it?" (false-belief question) and "Why would they say that?" (explanation question). The total score ranged from 0 to 4, with 1 point awarded for each correct response and 0 points for each incorrect or no response. This scoring framework provides a quantitative measure of children's ability to understand and explain false beliefs.

3.3.2 Main test

Narrative task

To assess the children's narrative skills, we used an oral repetition test, which was based on ENNI stories (Andreou, 2015). In particular, the B2 story was used included two episodes with three characters in total and was considered appropriate for this age group. More specifically, the story revolves around a dog and a rabbit who are close friends and go on a picnic together. After overeating, the rabbit falls ill, leading the dog to seek help from a rabbit doctor who provides treatment and helps the rabbit recover. The story contained 8 pictures and a total of 230 words, 20 simple clauses and 22 subordinate clauses. The children listened to the story and saw the 8 pictures at the same time. Then, they were asked to oral retell the story.

3.4   Procedure

Prior to the main test (narrative task), the background tests were administered in the specified order. Following this, the storytelling task was conducted. Each child was assessed individually in a quiet classroom at their school, free from significant distractions such as noise or overly stimulating decorations (e.g., numerous paintings on the walls). During the storytelling task, one of the researchers read the story aloud while the child viewed eight accompanying pictures on a sheet of paper. After completing the narration, the researcher prompted the child to retell the story orally using the pictures as visual cues. The instructions provided were: *"As you listen to the story, observe the corresponding pictures on the sheet of paper. Once the story is finished, please retell the story as best you can."*

3.5   Assessment of macro- and microstructure

The participants' responses were recorded and transcribed to be analyzed further. To obtain reliable results, the responses were evaluated separately by both researchers.

We evaluated the story grammar components of time, place, character introduction (three characters), and

the narrative structure of the episodes using the coding scheme described in Andreou (2015) (goal-attempt-outcome for two episodes) to analyze macrostructure. A scoring framework was implemented wherein 0 to 1 point was assigned for references to time, place, and characters, while 2 points were given for each distinct aspect of the episode. The overall score achieved amounted to 17.

Moreover, several parameters were taken into consideration for microstructure analysis: (a) the word count is used to quantify the length of the narrative; (b) the Mean-Segmental Type-Token Ratio (MSTTR) refers to the average Type-Token Ratio (TTR) calculated across consecutive 50-word segments of a text (Koizumi & In'nami, 2012). To compute the MSTTR, the total number of unique words (types) is divided by the total number of words (tokens) within each 50-word segment. Since the participants produced narratives with varying word counts, we decided to compare the first 50 words to examine the individual elements of microstructure (Dosi et al., 2024; Koizumi & In'nami, 2012). This approach ensured an equal word count across all participants, allowing us to obtain more comparable and reliable results; (c) the number of different noun types is divided by the total number of noun tokens; (d) the number of different verb types is divided by the total number of verb tokens; (e) the syntactic complexity is assessed by dividing the number of subordinate clauses by the total number of main clauses; (f) the frequency of the usage of connectives.

3.6 Data analysis

Given the small sample size, we relied on descriptive statistics. Additionally, we conducted a qualitative analysis of the responses provided by the two children.

4. Results

4.1 Background tests

In the background tests, both participants achieved similar results. The non-verbal intelligence test confirmed that their mental age was equivalent, at 8 years—approximately one year below their chronological age. Similarly, in the reverse digit recall test, which assessed verbal working memory, both children achieved the same score (44%) and successfully completed the 4-digit recall block. In the Sentence Repetition Task, both participants performed well, although the TD child scored at ceiling (97%), while the child with HFA scored slightly lower (81%). Regarding expressive vocabulary, both children demonstrated strong skills: the TD child scored an average of 82%, and the child with HFA scored 80%, indicating a comparable level of expressive vocabulary proficiency. However, differences emerged in the first-order belief task of ToM. The TD participant achieved the maximum score of 100%, while the child with HFA scored significantly lower, performing at chance level with a score of 50%.

4.2 Narrative macrostructure

The performance of the two participants was comparable. In particular, the TD participant achieved an average score of 94,1%, while the HFA child scored lower at 88,2%. Although the child with HFA identified all the three characters (rabbit, dog and doctor), goals, attempts and outcomes from both episodes, he omitted mentioning the setting of the story (time and place). Conversely, the TD participant referred to the setting only in terms of time, while omitting any mention of place. Moreover, it is important to note that both narratives were coherent, as they followed a clear structure with a beginning, middle, and end. However, the narration by the child with HFA was occasionally marked by repetitive phrases and unnecessary details. This may be attributable to a characteristic of the disorder, which involves a tendency to focus on details. Also, he tended to use ambiguous references, especially in the second episode (e.g. then she/he was looking for someone to do something for him). More specifically, the child with HFA omitted the subject in their sentences. Although Greek is a pro-drop language where subject omission is grammatical, this led to pragmatic ambiguity, making it difficult to identify the agent in the context. In some cases, the child with HFA also omitted articles, resulting in

ungrammatical sentences. Such errors were not observed in the TD child, whose narrative was consistently clear and unambiguous. Both participants used clitics, but not extensively; they generally preferred to use determiner phrases instead.

Table 1
Macrostructure/Story Grammar scores for both participants (Mean %)

	TD	HFA
Total score	94.1	88.2
Time	100	0
Place	0	0
Character1 intro	100	100
Character2 intro	100	100
Episode 1 - goal	100	100
Episode 1 - attempt	100	100
Episode 1 - outcome	100	100
Character3 intro	100	100
Episode 2 - goal	100	100
Episode 2 - attempt	100	100
Episode 2 - outcome	100	100

4.3 Using words related to ToM

Regarding the use of words denoting emotions or mental state, it appears that both participants used a limited number of such terms. This is likely due to the narrative itself containing few references to the emotional and mental states of the characters. Notably, the HFA participant used more words suggestive of emotions than his TD peer. Specifically, in HFA participant's narrative, we identified the words "help", "happy", "don't worry" and "understand", whereas in the TD participant's narrative, only the first two were present. However, unlike the TD peer, the HFA child used several ambiguous references like in (1) where he should have said something more specific, i.e., "The dog guided the doctor to the location where her friend, the rabbit, was".

(1)   Tin   'arpakse   ce   tin   'travikse

(pro) her.ACC.FEM.SG grab.PAST.3SG and   (pro) her.ACC.FEM.SG   pull.PAST.ACT.IND.3SG

e'ci   pu   'itan

there where be.PAST.ACT.IND.3SG

He grabbed her and pulled her to where he was.

The presence of these ambiguities suggests that, on several occasions, he did not adequately consider the listener's need for clarity, resulting in the omission of crucial information.

4.4 Narrative microstructure

The narrative produced by the child with HFA was longer, comprising 140 words, compared to the TD peer's narrative, which totaled 98 words. This difference can be attributed to the HFA child being more verbal. In terms of lexical diversity, both participants demonstrated a moderate range, with a MSTTR of 72%. However, a slight difference was observed in noun diversity, where the child with HFA exhibited slightly lower diversity (77.7%) compared to the TD peer (81.8%). In contrast, verb diversity revealed a more pronounced difference, with the TD child exhibiting significantly higher performance (100%) compared to the child with HFA (85,7%). In terms of syntactic complexity, both participants exhibited limited complexity, with the child with HFA showing lower complexity (44.4%) compared to the TD child (66.6%). Notably, both participants displayed similar patterns in their use of subordinate clauses. Specifically, they primarily utilized complement clauses with the complementizers *na* and *oti* (that), while the use of adverbial (temporal) and relative clauses was less frequent. Additionally, the TD child incorporated two concessive clauses featuring the adversative conjunction *eno* (while).

Finally, regarding the use of connectives, both participants demonstrated minimal usage. The child with HFA used three connectives—*omos* (however), *molis* (as soon as), and *ce* (and)—while the TD peer used only two—*eno* (while) and *ce* (and).

5. Discussion

The present case study aimed to explore the narrative skills of a child with HFA in comparison to a TD peer. Specifically, it sought to identify potential differences or challenges in the narrative abilities of the child with HFA by analyzing both the macrostructure and microstructure of their narratives.

Before analyzing each participant's narratives, we first ensured that the two children matched their cognitive level and did not have any language deficits, as suggested by previous research (e.g. Norbury & Bishop, 2003; Diehl et al., 2006). Additionally, we administered a ToM tasks, as this study also attempted to examine whether the child with HFA used words related to emotions or mental states in his narrative. Several studies (e.g. Tager-Flusberg & Sullivan, 1994; Tomasello, 2003; Lorusso et al., 2007) have exhibited a correlation between ToM and narrative skills. In fact, some studies have even included the usage of ToM- related words in analysis of narrative macrostructure (Peristeri et al., 2017).

Our initial hypothesis regarding macrostructure was partially confirmed, as the child with HFA used character references ambiguities and scored lower than TD peer, but still high. So, regarding the structure of the story, no significant differences can be identified between them. The primary challenge for the child with HFA concerned the setting of the story, since both place and time were omitted. Contrary to previous studies (e.g. Diehl et al., 2006; Peristeri et al., 2017), we observed that the narrative of the child with HFA was coherent, and he seemed to have fully understood the "gist of the story" (Norbury & Bishop, 2003). This finding suggests that when children with HFA possess high language abilities, their narrative coherence and understanding of the main topic may not differ significantly from their TD peers. Similarly, certain studies have demonstrated that while children with ASD often recall fewer event details than TD peers, their narrative coherence, including the use of story grammar elements, is comparable when matched for age and ability (Henry et al., 2020; Norbury et al., 2014). However, Peristeri et al. (2017) investigated the relationship between language abilities and story coherence, concluding that even participants with HFA and high language skills scored lower on story coherence than their TD peers. Therefore, it is essential to further investigate the relationship between language proficiency and story coherence through studies involving larger participant samples. In addition, as predicted, the narrative produced by the child with HFA presented numerous character reference ambiguities (Norbury & Bishop, 2003; Manolitsi & Botting, 2011; Novogrodsky, 2013; Suh et al., 2014; Dosi & Boni, 2023) indicating that it did not consistently took into account the listener's needs for understanding the story. This may be due to difficulties in understanding the emotions and thoughts of others, a common characteristic of children with ASD (Siller et al., 2014). This is further supported by the fact that the child with HFA scored significantly lower than the TD child on the first-order ToM task.

Our second hypothesis was only partially confirmed. While we anticipated that both children would use emotion-related words, we incorrectly assumed that the child with HFA would use fewer of these terms. The results showed that both children employed a limited number of connectives and emotion-related words (Mäkinen et al., 2014). Interestingly, despite the TD child outperforming the child with HFA on the ToM task, he produced very few words indicating mental states or feelings in his oral narrative repetition. The relationship between ToM and narrative abilities has been explored by several researchers (e.g., Capps et al., 2000; Siller et al., 2014), but no definitive conclusions have been reached thus far (Kimhi et al., 2022). However, we do not suggest that children with ASD possess a similar ability to use terms related to mental and emotional states. Instead, this result likely reflects the nature of the narrative test itself, which does not include many expressions of mental states or emotions. Additionally, it is possible that the TD child's narrative style focuses more on actions rather than feelings. In any case, this issue requires a larger sample size and further investigation.

With respect to the third and final research question, our hypothesis was only partially supported. Contrary to existing literature, our findings showed that the narrative produced by the child with HFA was longer than that of the TD peer. This outcome likely reflects the HFA child's greater verbosity, characterized by frequent repetition of phrases or the inclusion of additional details (Dosi & Boni, 2023). Additionally, as we predicted, there was no significant difference in lexical diversity between the two participants. This aligns with existing research suggesting that children with HFA do not differ significantly from their TD peers in this respect (Tager-Flusberg & Sullivan, 1994; Peristeri et al., 2017). However, when comparing noun and verb diversity, the child with HFA performed lower, particularly in verb diversity. This indicates that, unlike his TD peer, the child with HFA frequently relied on the same nouns and verbs when retelling the story. A significant difference was observed in syntactic complexity between the two participants. While both demonstrated moderate use of subordinate clauses, the HFA child's performance was notably lower. This finding aligns with previous research suggesting that narratives in children with HFA often feature simpler syntax and fewer subordinate clauses, particularly adverbial clauses (Norbury & Bishop, 2003; Eigsti et al., 2007; Marinis et al., 2013; Norbury et al., 2014; Mäkinen et al., 2014; Clarsson et al., 2020). The HFA participant's syntactic challenges were also reflected in his lower performance on the sentence repetition task compared to the TD child, further indicating difficulties in handling more complex syntactic structures, as also suggested by Terzi et al. (2014).

6. Conclusions, limitations and future research

In conclusion, the primary objective of this case study was to investigate narrative skills of a child with HFA compared to TD peer with equivalent cognitive and linguistic abilities. To achieve this aim, we analyzed the participants' narratives in terms of both macrostructure and microstructure. Our findings revealed differences between the two participants, with the child with HFA performing slightly lower overall in macrostructure. Despite this difference, he was able to produce a complete and coherent narrative. However, challenges were observed in character reference, which was often ambiguous due to the omission of determiner phrases. At the microstructure level, the HFA participant's narrative was longer, with no significant differences in the overall lexical diversity between the two children, although differences were observed in verb diversity. The most pronounced difficulty for the HFA participant was in syntactic complexity, a finding supported by his lower performance, compared to the TD child, on the sentence repetition task. These results suggest that children with HFA may require additional support in developing syntactic abilities.

The study has several limitations that should be acknowledged. Firstly, as a case study, the results cannot be broadly generalized. Secondly, our TD participant did not use ToM-related terms, which may be due to individual differences or environmental factors, such as less developed storytelling abilities. As a result, no firm conclusions can be drawn, and further research is needed. Studies with larger sample sizes are essential to obtain more reliable results, which could inform the development of effective intervention programs. Moreover, since autism is a spectrum disorder, future research that includes a broader range of participants with diverse individual characteristics will provide a deeper understanding of narrative skills in children with HFA.

7. Educational implications

The findings of this study offer valuable insights for educators, speech-language pathologists, and other professionals working with children with HFA. To support narrative coherence and improve character references, educators can provide explicit instruction on structuring narratives by teaching students to include key elements such as setting, character references, and clear temporal markers. Visual aids like story maps or graphic organizers can help children organize their thoughts and ensure their stories are comprehensible. Learners with HFA may benefit from practice activities that focus on using determiner phrases and pronouns appropriately.

Enhancing syntactic complexity is another key area for intervention. Teachers and therapists can include exercises like sentence combining, where students practice creating sentences with subordinate clauses or more varied structures. Scaffolding techniques, such as sentence stems or templates, can also support learners as they

experiment with more complex syntax in their storytelling. Similarly, fostering emotional and mental state vocabulary is crucial. Since children with HFA may struggle to use emotion-related words, educators should incorporate explicit teaching of such vocabulary through role-playing activities, storytelling prompts emphasizing characters' emotions, or discussions about mental states in literature or real-life scenarios. Pairing this vocabulary instruction with ToM activities, such as discussing characters' thoughts and motivations in stories, can strengthen connections between language use and understanding others' perspectives.

To promote lexical diversity, vocabulary-building exercises should focus on expanding the range of verbs and nouns used by children with HFA. Word banks, thesaurus exercises, and games that encourage creative word choices can support this goal. Activities like retelling the same story in different ways or incorporating prompts that require the use of specific word types can also promote lexical variety. On the other hand, educators can help children with HFA manage verbosity by teaching strategies such as summarizing and identifying the key points of a narrative. Structured story templates that limit excessive detail or exercises like time-limited retellings and written summaries can further help manage verbosity.

Regular narrative assessments are essential for identifying specific areas of difficulty for learners with HFA. Tailored intervention plans can then focus on addressing these challenges, whether they relate to coherence, syntax, or vocabulary use. Collaboration with parents and caregivers is also important, as providing families with tools and activities to support narrative development at home can enhance learning outcomes. Additionally, promoting inclusive practices within the classroom can foster an environment where all students feel supported in developing storytelling skills. Peer modeling, group storytelling activities, and collaborative projects can encourage children with HFA to learn from their typically developing peers, while positive reinforcement and celebrating small achievements can boost their confidence and motivation.

Finally, educators should emphasize the long-term development of narrative skills, which are critical for academic success, social communication, and future employment. Embedding narrative practice into broader curriculum areas, such as history or science, can provide meaningful contexts for skill application, making learning more engaging and practical. By addressing these areas, educators can help children with HFA develop the narrative and language skills needed to succeed academically, socially, and emotionally.

8. References

Aksu-Koç, A., & Aktan Erciyes, A. (2018). Narrative discourse: Developmental perspectives. In A. Bar-On & D. Ravid (Eds.), *Handbook of communication disorders* (pp. 329–356). De Gruyter Mouton. https://doi.org/10.1515/9781614514909-01710.1515/9781614514909-017

Alloway, T. P. (2007). *The Automated Working Memory Assessment.* Psychological Corporation.

Andreou, M. (2015). *The effects of bilingualism on verbal and non-verbal cognition: The micro- and macro-structure of narratives in the weak and the dominant language of the bilingual child* [Unpublished PhD Thesis]. Aristotle University of Thessaloniki.

Baldimtsi, E. (2017). *Narrative discourse and theory of mind as measures of autism spectrum disorders* (PhD Thesis). Aristotle University of Thessaloniki.

Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a "theory of mind"? *Cognition, 21*(1), 37–46. https://doi.org/10.1016/0010-0277(85)90022-8

Bishop, D., & Donlan, C. (2005). The role of syntax in encoding and recall of pictorial narratives: Evidence from specific language impairment. *British Journal of Developmental Psychology, 23*(1), 25–46. https://doi.org/10.1348/026151004X20685

Blanc, R., Adrien, J. L., Roux, S., & Barthélémy, C. (2005). Dysregulation of pretend play and communication development in children with autism. *Autism, 9*(3), 229–245. https://doi.org/10.1177/1362361305053253

Blankenstijn, C., & Scheper, A. (2003). *Language impairment in Dutch-speaking children with psychiatric impairment.* Paper presented at the meeting of Society for Research in Child Development meeting,

Tampa, FL.

Botting, N. (2002). Narrative as a tool for the assessment of linguistic and pragmatic impairments. *Child Language Teaching and Therapy, 18*(1), 1–21. https://doi.org/10.1191/0265659002ct224oa

Boudreau, D. (2008). Narrative abilities: Advances in research and implications for clinical practice. *Topics in Language Disorders, 28*(2), 99–114. https://doi.org/10.1097/01.TLD.0000318932.08807.da

Capps, L., Losh, M., & Thurber, C. (2000). The frog ate the bug and made his mouth sad: Narrative competence in children with autism. *Journal of Abnormal Child Psychology, 28*(2), 193–204. https://doi.org/10.1023/A:1005126915631

Carlsson, E., Åsberg Johnels, J., Gillberg, C., & Miniscalco, C. (2020). Narrative skills in primary school children with autism in relation to language and nonverbal temporal sequencing. *Journal of Psycholinguistic Research, 49*(3), 475–489. https://doi.org/10.1007/s10936-020-09703-w

Cummins, J. (2009). Transformative multiliteracies pedagogy: School-based strategies for closing the achievement gap. *Multiple Voices for Ethnically Diverse Exceptional Learners, 11*(1), 38–56. https://doi.org/10.5555/mv.11.1.p3g2r467276t3j30

Diakogiorgi, K., Filippatou, D., Ralli, A. M., Chrysochoou, E., Roussos, P., & Dimitropoulou, P. (2021). Writing skills of children with and without dyslexia: similarities and differences. *Psychology: The Journal of the Hellenic Psychological Society, 26*(1), 102–120. https://doi.org/10.12681/psy_hps.26251

Diehl, J. J., Bennetto, L., & Young, E. C. (2006). Story recall and narrative coherence of high-functioning children with autism spectrum disorders. *Journal of Abnormal Child Psychology, 34*(1), 87–102. https://doi.org/10.1007/s10802-005-9003-x

Dosi, I., Kouki, E., Lada, A., & Keulen, S. (2024). Beyond monolingual norms: Analyzing the complexity of Greek-Turkish bilingual children's written narratives. *New Perspectives on Languages, 1*(1), 37–53. https://doi.org/10.56395/npl.v1i1.12

Dosi, I., & Boni, N. (2023). Pragmatic and language abilities in autism spectrum disorder: A case study approach. In D. Katsarou (Ed.), *Developmental language disorders in childhood and adolescence* (pp. 71–84). IGI Global. https://doi.org/10.4018/979-8-3693-0644-4.ch006

Eigsti, I. M., Bennetto, L., & Dadlani, M. B. (2007). Beyond pragmatics: Morphosyntactic development in autism. *Journal of Autism and Developmental Disorders, 37*(6), 1007–1023. https://doi.org/10.1007/s10803-006-0239-2

Elbers, L., & van Loon-Vervoorn, A. (2000). Lexicon en semantiek [Lexicon and semantics]. In S. Gillis & A. Schaerlaekens (Eds.), *Kindertaalverwerving* (pp. 185–224). Groningen: Martinus Nijhoff.

Gagarina, N., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Bohnacker, U., & Walters, J. (2019). MAIN: Multilingual assessment instrument for narratives–Revised. *ZAS Papers in Linguistics, 63*, 20-20. https://doi.org/10.21248/zaspil.63.2019.516

Gagarina, N., Klop, D., Kunnari, S., Tantele, K., Välimaa, T., Balčiūnienė, I., Bohnacker, U., & Walters, J. (2012). MAIN: Multilingual assessment instrument for narratives. *ZAS Papers in Linguistics, 56*, 1–155. https://doi.org/10.21248/zaspil.56.2019.414

Henry, L. A., Crane, L., Fesser, E., Harvey, A., Palmer, L., & Wilcock, R. (2020). The narrative coherence of witness transcripts in children on the autism spectrum. *Research in Developmental Disabilities, 96*, 103518. https://doi.org/10.1016/j.ridd.2019.103518

Hogrefe, G., Wimmer, H., & Perner, J. (1986). Ignorance versus false belief: A developmental lag in attribution of epistemic states. *Child Development, 57*(3), 567–582. https://doi.org/10.2307/1130337

Hughes, D., McGillivray, L., & Schmidek, M. (1997). *Guide to narrative language: Procedures for assessment. Eau Claire*, WI: Thinking Publications.

Hunt, K. W. (1965). *Grammatical structures written at three grade levels.* Champaign, IL: National Council of Teachers of English.

Johnston, J. R. (2008). Narratives: Twenty-five years later. *Topics in Language Disorders, 28*(2), 93–98. https://doi.org/10.1097/01.tld.0000318931.08807.01

Justice, L. M., Bowles, R., Eisenberg, S. L., Kaderavek, J. N., Ukrainetz, T. A., & Gillam, R. B. (2006). The Index of Narrative Micro-Structure (INMIS): A clinical tool for analyzing school-aged children's

narrative performance. *American Journal of Speech-Language Pathology, 15*(2), 177–191. https://doi.org/10.1044/1058-0360(2006/017)

Kaderavek, J. N., & Sulzby, E. (2000). Narrative production by children with and without specific language impairment: Oral narratives and emergent readings. *Journal of Speech, Language, and Hearing Research, 43*, 34–49. https://doi.org/10.1044/jslhr.4301.34

Kantzou, V. (2010). *The temporal structure of narrative in the acquisition of Greek as a first and as a second language* [PhD Thesis]. National and Kapodistrian University of Athens.

Karmiloff, K., & Karmiloff-Smith, A. (2002). *Pathways to language: From fetus to adolescent.* Harvard University Press. https://doi.org/10.4159/9780674039322

Karmiloff-Smith, A. (1985). Language and cognitive processes from a developmental perspective. *Language and Cognitive Process, 1*(1), 61–85. https://doi.org/10.1080/01690968508402071

Khan, K. S., Gugiu, M. R., Justice, L. M., Bowles, R. P., Skibbe, L. E., & Piasta, S. B. (2016). Age-related progressions in story structure in young children's narratives. *Journal of Speech, Language, and Hearing Research, 59*(6), 1395. https://doi.org/10.1044/2016_JSLHR-L-15-0275

Kimhi, Y., Kadosh, L., & Tubul-Lavy, G. (2022). Oral story retelling after reading or listening: Children with ASD versus typical development. *Preventing School Failure: Alternative Education for Children and Youth, 68*(1), 50–59. https://doi.org/10.1080/1045988X.2022.2158158

King, D., Dockrell, J. E., & Stuart, M. (2013). Event narratives in 11- to 14-year-olds with autistic spectrum disorder. *International Journal of Language & Communication Disorders, 48*(5), 522–533. https://doi.org/10.1111/1460-6984.12025

Kjelgaard, M., & Tager-Flusberg, H. (2001). An investigation of language impairment in autism: Implications for genetic subgroups. *Language and Cognitive Processes, 16*(3), 287–308. https://doi.org/10.1080/01690960042000058

Koizumi, R., & In'nami, Y. (2012). Effects of text length on lexical diversity measures: Using short texts with less than 200 tokens. *System, 40*(4), 554-564. https://doi.org/10.1016/j.system.2012.10.012

Košutar, S., Kramarić, M., & Hržica, G. (2022). The relationship between narrative microstructure and macrostructure: Differences between six-and eight-year-olds. *Psychology of Language and Communication, 26*(1), 126-153. https://doi.org/10.2478/plc-2022-0007

Liles, B. Z., Duffy. R. J., Merritt, D. D. & Purcell, S. L. (1995). Measurement of narrative discourse ability in children with language disorders. *Journal of Speech and Hearing Research 38*(2), 415-425. https://doi.org/10.1044/jshr.3802.415

Lorusso, M. L., Galli, R., Libera, L., Gagliardi, C., Borgatti, R., & Hollebrandse, B. (2007). Indicators of theory of mind in narrative production: A comparison between individuals with genetic syndromes and typically developing children. *Clinical Linguistics & Phonetics, 21*(1), 37–53. https://doi.org/10.1080/02699200600565871

Losh, M., & Capps, L. (2003). Narrative ability in high-functioning children with autism or Asperger's syndrome. *Journal of Autism and Developmental Disorders, 33*(3), 239–251. https://doi.org/10.1023/A:1024446215446

Loveland, K., & Tunali, B. (1993). Narrative language in autism and the theory of mind hypothesis: A wider perspective. In S. Baron-Cohen, H. Tager-Flusberg, & D. J. Cohen (Eds.), *Understanding other minds: Perspectives from autism* (pp. 267–291). Oxford University Press.

Lynch, J. S., Van Den Broek, P., Kremer, K. E., Kendeou, P., White, M. J., & Lorch, E. P. (2008). The development of narrative comprehension and its relation to other early reading skills. *Reading Psychology, 29*(4), 327–365. https://doi.org/10.1080/02702710802165416

Mäkinen, L., Loukusa, S., Leinonen, E., Moilanen, I., Ebeling, H., & Kunnari, S. (2014). Characteristics of narrative language in autism spectrum disorder: Evidence from the Finnish. *Research in Autism Spectrum Disorders, 8*(8), 987–996. https://doi.org/10.1016/j.rasd.2014.06.007

Manolitsi, M., & Botting, N. (2011). Language abilities in children with autism and language impairment: Using narrative as an additional source of clinical information. *Child Language Teaching and Therapy, 27*(1), 39–55. https://doi.org/10.1177/0265659010369991

Marinis, T., Terzi, A., Kotsopoulou, A., & Francis, K. (2013). Pragmatic abilities of high-functioning Greek-speaking children with autism. *Psychology, 20*, 321–337. https://doi.org/10.12681/psy_hps.23544

McCabe, A., & Peterson, C. (1984). What makes a good story? *Journal of Psycholinguistic Research, 13*(6), 457–480. https://doi.org/10.1007/BF01068179

Miller, J., & Klee, T. (1995). Computational approaches to the analysis of language impairment. In P. Fletcher & B. MacWhinney (Eds.), *The handbook of child language* (pp. 545–572). Oxford: Blackwell. https://doi.org/10.1111/b.9780631203124.1996.00023.x

Miller, J. (1981). Assessing language production in children. Baltimore, MD: University Park Press.

Minshew, N. J., Goldstein, G., & Siegal, D. J. (1995). Speech and language in high-functioning autistic individuals. *Neuropsychology, 9*(3), 255–261. https://doi.org/10.1037/0894-4105.9.2.255

Motsiou, E. (2014). Introduction to Language Development [in Greek]. University Studio Press: Thessaloniki.

Nippold, M. A., Hesketh, L. J., Duthie, J. K., & Mansfield, T. C. (2005). Conversational versus expository discourse: A study of syntactic development in children, adolescents, and adults. *Journal of Speech, Language, and Hearing Research, 48*(5), 1048–1064. https://doi.org/10.1044/1092-4388(2005/073)

Norbury, C. F., Gemmell, T., & Paul, R. (2014). Pragmatic abilities in narrative production: A cross-disorder comparison. *Journal of Child Language, 41*(3), 485–510. https://doi.org/10.1017/S030500091300007X

Norbury, C. F., & Bishop, D. V. M. (2003). Narrative skills of children with communication impairments. *International Journal of Language & Communication Disorders, 38*(3), 287–313. https://doi.org/10.1080/136820310000108133

Novogrodsky, R. (2013). Subject pronoun use by children with autism spectrum disorders (ASD). *Clinical Linguistics & Phonetics, 27*(2), 85–93. https://doi.org/10.3109/02699206.2012.742567

Peristeri, E., Andreou, M., & Tsimpli, I. M. (2017). Syntactic and story structure complexity in the narratives of high- and low-language ability children with autism spectrum disorder. *Frontiers in Psychology, 8*. https://doi.org/10.3389/fpsyg.2017.02027

Petersen, D. B., Brown, C. L., Ukrainetz, T. A., Wise, C., Spencer, T. D., & Zajic, J. (2014). Systematic individualized narrative language intervention on the personal narratives of children with autism. *Language, Speech, and Hearing Services in Schools, 45*(1), 67–86. https://doi.org/10.1044/2013_LSHSS-13-0008

Raven, J., Court, J., & Raven, J.C. (2008*). Raven's coloured progressive matrices and vocabulary scales*. London: Pearson Education.

Reilly, J., Losh, M., Bellugi, U., & Wulfeck, B. (2004). Frog, where are you? Narratives in children with specific language impairment, early focal brain injury, and Williams syndrome. *Brain and Language, 88*(2), 229–247. https://doi.org/10.1016/S0093-934X(03)00101-9

Rumpf, A.-L., Kamp-Becker, I., Becker, K., & Kauschke, C. (2012). Narrative competence and internal state language of children with Asperger syndrome and ADHD. *Research in Developmental Disabilities, 33*(5), 1395–1407. https://doi.org/10.1016/j.ridd.2012.03.007

Schuele, C. M., & Tolbert, L. (2001). Omission of obligatory relative markers in children with specific language impairment. *Clinical Linguistics & Phonetics, 15*(4), 257–274. https://doi.org/10.1080/02699200010017805

Scott, C. M., & Stokes, S. L. (1995). Measures of syntax in school-age children and adolescents. *Language, Speech, and Hearing Services in Schools, 26*(4), 309–319. https://doi.org/10.1044/0161-1461.2604.309

Sideridis, G., Antoniou, F., Mouzaki, A., & Simos, P. (2015). *Raven's Educational CPM/CVS*. Motivo.

Siller, M., Swanson, M. R., Serlin, G., & George, A. (2014). Internal state language in the storybook narratives of children with and without autism spectrum disorder: Investigating relations to theory of mind abilities. *Research in Autism Spectrum Disorders, 8*(5), 589–596. https://doi.org/10.1016/j.rasd.2014.02.002

Stirling, L., Barrington, G., Douglas, S., & Delves, K. (2017). Recall, structure, and complexity in story retellings by children with ASD. In L. R. Naigles (Ed.), *Innovative investigations of language in autism spectrum disorder* (pp. 201–223). Washington, DC: American Psychological Association; Berlin: Walter de Gruyter. https://doi.org/10.1037/15964-011

Suh, J., Eigsti, I. M., Naigles, L., Barton, M., Kelley, E., & Fein, D. (2014). Narrative performance of optimal outcome children and adolescents with a history of an autism spectrum disorder (ASD). *Journal of Autism and Developmental Disorders, 44*(7), 1681–1694. https://doi.org/10.1007/s10803-014-2042-9

Tager-Flusberg, H., Paul, R., & Lord, C. (2005). Language and communication in autism. In F. Volkmar, R. Paul, A. Klin, & D. J. Cohen (Eds.), *Handbook of autism and pervasive developmental disorders* (3rd ed., Vol. 1, pp. 335–364). Wiley. https://doi.org/10.1093/med/9780195371826.003.0011

Tager-Flusberg, H. (1995). Once upon a ribbit: Stories narrated by autistic children. *British Journal of Developmental Psychology, 13*(1), 45–49. https://doi.org/10.1111/j.2044-835X.1995.tb00663.x

Tager-Flusberg, H., & Sullivan, K. (1994). Predicting and explaining behavior: A comparison of autistic, mentally retarded and normal children. *Journal of Child Psychology and Psychiatry, 35*(6), 1059–1075. https://doi.org/10.1111/j.1469-7610.1994.tb01809.x

Templin, M. (1957). *Certain language skills in children. Minneapolis*, MN: University of Minnesota Press.

Terzi, A., Marinis, T., Kotsopoulou, A., and Francis, K. (2014). Grammatical abilities of Greek-speaking children with autism. *Language Acquisition, 21*, 4–44. https://doi.org/10.1080/10489223.2013.855216

Tomasello, M. (2003). *Constructing a language: A usage-based theory of language acquisition.* Cambridge, MA: Harvard University Press.

Tsimpli, I. M., Andreou, M. & Peristeri, E. (2019). Sentence Repetition as a measure of language knowledge in Greek-Albanian TD and DLD bilingual children. Poster presentation *LITMUS Sentence Repetition Workshop*, https://doi.org/10.13140/RG.2.2.17542.32327

Tsimpli, I. M., Peristeri, E., & Andreou, M. (2016). Narrative production in monolingual and bilingual children with specific language impairment. *Applied Psycholinguistics, 37*(2), 195–216. https://doi.org/10.1017/S0142716415000478

Ukrainetz, T. A., Justice, L. M., Kaderavek, J. N., Eisenberg, S. L., Gillam, R. B., & Harm, H. M. (2005). The development of expressive elaboration in fictional narratives. *Journal of Speech, Language, and Hearing Research, 48*(2), 459–471. https://doi.org/10.1044/1092-4388(2005/032)

Vogindroukas, I., Protopapas, A., & Sideridis, G. (2009). *Experiment on the Expressive Vocabulary* (Greek version of Renfrew Word Finding Vocabulary Test). Glafki.

Wigglesworth, G. (1997). Children's individual approaches to the organization of narrative. *Journal of Child Language, 24*(2), 279–309. https://doi.org/10.1017/s0305000997003048

Zacks, J. M. (2020). Event perception and memory. *Annual Review of Psychology, 71*(1), 165–191. https://doi.org/10.1146/annurev-psych-010419-051101

Critical thinking disposition as a factor in creating problem-based learning

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Abstract

The importance of the development of critical thinking in a contemporary context stem from the demand for democratization of society, which implies active citizens who think, question, evaluate and make decisions. The general aim of this study is to identify students' disposition towards critical thinking in the secondary school in the Republic of North Macedonia. Its contribution would help educators decide what areas of critical thinking need improvement in student education. The research sample consists of 114 randomly selected students. Students filled out Critical Thinking Disposition Inventory, based on seven dimensions of critical thinking: (1) truth-seeking, (2) open-mindedness, (3) analyticity, (4) systematicity, (5) CT self-confidence, (6) inquisitiveness and (7) cognitive maturity. The descriptions of each of the scales and sub-scales and the frequency of representation among students can be suggestions for possible teaching or assessment strategies. Teachers are seen as carriers of information rather than facilitators, mediators, and teaching strategies are also seen as conventional. In an educational context, critical thinking is a resource that allows students to adopt an analytical and evaluative attitude towards their learning, thus improving the quality of the learning process. Problem-based learning should be performed in today's school to a higher level - from acquiring knowledge towards the development of students' creative abilities, which means that the teaching process should to be a process of students' thought activity.

Keywords: critical thinking, students, problem-based learning, secondary education

Critical thinking disposition as a factor in creating problem-based learning

1. Introduction

Critical thinking is the development of the ability to form one's own judgment based on arguments supported by evidence. Critical thinking encompasses a variety of complex skills associated with higher-level thinking. It is independent thinking that generates new and innovative ideas and solves problems. It involves reflecting critically on experiences and learning processes and making effective decisions by avoiding common pitfalls, such as taking a one-sided view of an issue, dismissing new evidence that refutes ideas, reasoning from passion rather than logic, and failing to support statements with evidence. In its basic form, it is based on universal intellectual values that transcend subject-matter divisions: clarity, accuracy, precision, consistency, relevance, solid evidence, good reasons, depth, comprehensiveness, and fairness. Providing a single definition for critical thinking is difficult because this process involves complex activities, such as: setting goals for thinking, drawing conclusions, and analyzing solutions.

According to Yinger (1980), definitions of critical thinking can be grouped into 2 categories: broader, which equate it with problem solving or reflective thinking, and narrower, which present it as a special type of thinking, the main feature of which is the evaluation of the products of thinking. In the Encyclopedia of Educational Research, critical thinking is defined as "the process of evaluating or categorizing the relationships and conditions of some previously adopted rules or standards. It is a logical examination of data and facts, where false judgment and emotional basis of judgment are avoided." For Brookfield (2012), critical thinking is an intellectual and practical attempt to reexamine, reevaluate, modify, or completely reject existing structures of thought and life. This broad definition does not treat critical thinking only as an intellectual quality or ability, but as a life activity of adulthood; linking critical thinking to rationality and principle, but also to certain dispositions, habits of thought, and character traits. To think critically means to be guided by arguments, to understand them, and to accept their value and probative force.

A group of American authors (Temple et al., 1997) defines critical thinking as a complex cognitive process by which ideas and their implications are considered with a dose of skepticism, opposing viewpoints are carefully weighed, questions are asked and answers are systematically sought, and positions are taken or formed based on sound arguments. The analysis of the definitions, which are complex and multifaceted, shows that they are dominated by the following activities: considering problems, checking the value, finding alternatives and evaluating statements. Hence, critical thinking is engaged thinking, which takes nothing for granted and whose main goal is to check the accuracy and adequacy of a statement. We begin to think critically only when we begin to check, evaluate, expand and apply new ideas. However, critical thinking does not always have to be original. A person who thinks critically can also adopt or agree with someone else's idea or belief, but still feel that they are completely their own. It is important to think and make decisions independently of others, and not to strive at all costs to be different from others. Critical thinking comes to its full expression when a problem needs to be solved. It allows the person to see that there is more than one solution, to come up with their own solution, and to try to show others why their solution is logical and practical. All of this is based on a previous analysis of good and convincing arguments.

The importance of developing critical thinking in a contemporary context stem from the demand for the democratization of society, which implies active citizens who think, ask, evaluate, and make decisions. In addition, the visible technological progress of society, which is accompanied by constant and rapid changes and the expansion of the corpus of available information, favors the development of critical thinking. However, critical thinking should not only be seen as a response to the needs of modern society, but also as the mission of education. Facione (2000) explains critical thinking dispositions as the characterological attributes of a person, which are consistent yet malleable. Attributes are the characteristics, inherent qualities or traits of a person's

object. Dispositions could be considered as traits of a person. These dispositions would thus result in certain attitudes and actions associated with a strong critical thinker. The Delphi team initially identified 19 dispositions (APA 1990). From the original 19 dispositions, seven dispositions were identified through a process of factor analysis.

2. Critical thinking in education – relevant research

Research shows how an approach to education based on critical thinking contributes to the development of learning and teaching, which as a result brings more long-lasting, deeper, more useful, and therefore more valuable knowledge. In support of the importance of developing critical thinking in education are the leading research of foreign authors in which the connection between the various aspects of critical thinking and the key factors of the education system is examined. Within this framework, several groups of research can be highlighted that problematic and mentioned aspects. The first group of studies focuses on examining the relationship between individual characteristics of the teacher and critical thinking (Boonjeam et al., 2017; Chee Choy & San Oo, 2012; Emir, 2013; Innabi, 2003; Moeti, et al, 2017; Warburton & Toff, 2005). The second group consists of studies that focus on the relationship between the didactic-methodical aspect of teaching and critical thinking, which refers to teaching methods and activities that involve the active approach of students in teaching (Fung, 2014; Lewine et al., 2015; Piergiovanni, 2014; Shim & Walczak, 2012; Tiruneh et al., 2014). In addition to the above, there is a third group of research related to approaches to teaching critical thinking, which follows the author's discussion of directly teaching critical thinking skills in class (Alwehaibi, 2012; Cotter, 2009; Wallace & Jefferson, 2015; Marin & Halpern, 2011). Shim and Walchak (2012) studied the relationship between different teaching practices that involve guiding students and developing critical thinking skills. A significant result of this research is that asking challenging questions to students during class contributes most to the development of their critical thinking.

Marin and Halpern (2011) investigated whether critical thinking skills can be learned, practiced, and transferred if they are taught directly (through explicit instruction). Directly teaching students critical thinking skills in class has been shown to be more effective than other teaching approaches. Wallace and Jefferson (2015) also addressed the question of whether students' critical thinking skills are enhanced in class when they are given direct instruction, examining the differences between two groups of students, where one group of students used a manual to practice and develop critical thinking skills when solving problems set in class. The group of students who used the manual showed better results on a test measuring critical thinking skills compared to the group of students who did not use the manual. In addition, research has shown that the successful development of students' critical thinking in class is facilitated by cooperative forms of work between students and methods of work and activities in class that imply an active approach of students in the teaching process, such as discussions, debates, case studies, problem-based tasks, essay-type tasks, as well as students' reflection on their own performance in class (Piergiovanni, 2014; Razei et al., 2011). According to the results of the presented research, to develop students' critical thinking in class, it is desirable for the teaching process to include those activities that will include various methods of active learning and teaching. Additionally, for more successful teaching of critical thinking skills, teachers are recommended to directly teach students these skills.

Mastering critical thinking skills may bring a number of benefits, including more control over own knowledge or even empathy for other people's viewpoints (Styers, M. L. et al., 2018; Saidin, N. D. et al., 2021). Notable research gaps have been identified in teaching critical thinking in higher education. For example, viable approaches to critical thinking training that promote high performance on standardized tests have not yet been identified, given teachers' concerns that focusing on critical thinking would take away time from standardized test preparation (Ongesa, 2020). Belluigi and Cundill (2017) also note a gap in the absence of enough discussion on critical disposition. The only way to teach critical thinking is by modelling critical thinking behavior. They note that more discussion is needed on ways to address this shortcoming.

One of the commonly quoted sources of the educational approach to critical thinking is Bloom's Taxonomy

which was created to classify the thinking acts that result from educational experiences Bloom's taxonomy highlights the different levels of higher-order thinking that learners should experience as they go through higher levels of education (Calma & Davies, 2021). In order to unify the goals and outcomes of education and, to a greater extent, to standardize the assessment of student abilities and learning outcomes, Benjamin Bloom and a team of experts in the field of education worked on a project that was published in 1956 under the name Taxonomy of Educational Goals - Classification of Educational Goals, Volume One: Cognitive Domain (Bloom, et al., 1956). Although it was initially poorly understood due to its large scope, complexity, and level of abstraction, since then, expert analyses and interpretations have become indispensable literature for all those involved in education.

The creator of the taxonomy of cognitive goals, identified six basic categories of goals. The categories have their own subcategories that are cumulatively arranged, from the simplest to the most complex: knowledge, understanding, application, analysis, synthesis, and evaluation. The category of knowledge means memorizing and reproducing certain contents (e.g. knowing characteristics, knowing concepts, knowing facts). The category of understanding means having the ability to interpret the lessons in one's own words and from different aspects (e.g. interpreting material linguistically, making assumptions). The category of application means the ability to use knowledge and its interpretation in specific conditions (using concepts, laws, rules). A student who can analyze can examine the content of the components and study the smallest parts to get to know the whole in detail. The goals in the category of synthesis ensure a quality of cognitive development of students that is equal to creative and productive thinking. This means that the student can create without respecting previously set and defined frameworks, to create sentences, compositions and works, to transfer knowledge, etc. Evaluation or assessment is the highest category that reflects the mental maturity of students to judge and make decisions and conclusions regarding the quality of knowledge and the previously mentioned categories.

The hierarchical structure means that each higher cognitive function implies and includes lower functions, and they expand and become more complex, moving from simple to complex and from concrete to abstract. What do students think about while teachers teach? What thought processes do teachers encourage in students? Why do they force factual knowledge (overemphasize the need for memorization in the learning process) and neglect the need to activate higher cognitive processes? How can learning, teaching and assessment be improved in the teaching process? Are some of the issues that can be resolved by properly applying taxonomy in the process of planning, implementing and evaluating teaching. From this it can be concluded that in order to have successful teaching and quality learning, it is necessary to provide students with: 1) sufficient activities that enable the acquisition of essential knowledge and the practice of the cognitive functions that are responsible for retaining and retrieving that knowledge and 2) teaching that abounds in the practice of those cognitive functions that can be used in new situations, and these are more cognitive functions that enable the transfer of learning and thus together represent the development of critical thinking.

3. Methodology of research

Research objectives and tasks - this study is relevant to explore the Macedonian reality of public high school students' disposition towards their critical thinking. The general aim of this study is to identify students' disposition towards critical thinking in the secondary school in the Republic of Macedonia. Its contribution would help educators decide what areas of critical thinking need improvement in secondary school education. The realization of this goal is done through the realization of the following tasks:

- Examining the degree of truth-seeking among students;
- Examining the degree of students open-mindedness;
- Examining the degree of students analyticity;
- Examining the degree of students systematicity;
- Examining the degree of students CT self-confidence;
- Examining the degree of students inquisitiveness;
- Examining students' opinion how much the teaching methods used by teachers are focused on problem

solving.

Research sample - the research sample consists of 114 high school students randomly selected. From 10 high schools from different geographical regions of the Republic of North Macedonia, consent was sought for the inclusion of students in the research who voluntarily wanted to be a research sample. As the survey covers a sample of 16 to 18-year-old students, regulatory requirements that ensure protection for child research participants must be considered. According to these regulations, children are persons who have not reached the age limit for consent according to the law of the jurisdiction in which the research was conducted (in the Republic of North Macedonia, any person under the age of 18). Consent for the child to participate in the research was made by obtaining written consent from the child's parents or legal guardians.

Research methods and instruments - the research is a quantitative investigation that has got a descriptive, non-experimental, and cross-sectional design to investigate the critical thinking dispositions of secondary school students. Students filled out Critical Thinking Disposition Inventory. The validity and reliability of the Critical Thinking Disposition Inventory was previously determined by Redhana and Sudria (2020). In their research, the Data showed that seven scales and 33 subscales are valid and the reliability of the instrument was 0.887. The inventory was based on seven scales of critical thinking disposition of American Philosophy Association (Facione et al., 1995). Characteristics of inventory developed used seven critical disposition scales: (1) truth-seeking, (2) open-mindedness, (3) analyticity, (4) systematicity, (5) CT self-confidence, (6) inquisitiveness, and (7) cognitive maturity. The total number of sub-scales used to construct a critical thinking disposition inventory was 33. The responses to each statement were based on the Likert scale disagree (score 1), partially agree (score 2), agree (score 3).The validation results of Macedonian psychologist and linguist showed that the critical thinking disposition inventory developed was appropriate for measuring the students' critical thinking disposition, adapted to the Macedonian language. Validation was also conducted by pretesting 20 students to ensure that all items were understandable, culturally relevant, and did not cause confusion or misunderstanding.

Data processing - the data was processed quantitatively using the EXCEL and STATISTICS computer programs. They were grouped according to the number of matchings in certain categories and then placed into tables. The data were calculated with frequencies and mean score.

4. Results and discussion

Regarding the main objective, which seeks to identify participants' disposition towards critical thinking, a descriptive statistics analysis was carried out; this analysis addressed the frequencies and data mean score. First, 114 students answered the questionnaire, and the responses went from disagree (score 1), partially agree (score 2) and agree (score 3) as show in Table 1 below. The results are presented by frequency of responses for each statement of the seven scales and a total frequency was calculated for each of the three scores.

Table 1

Scales and sub-scales of The Inventory of Critical Thinking Dispositions

Scales	Subscales	Disagree	Partially agree	Agree	Mean
1.Truth-seeking	a. Trying to find out the truth clearly	5	38	71	2.57
	b. Having spirit to ask questions	6	43	66	2.54
	c. Being objective/honest toward information	26	57	31	2.04
	d. Trying to understand something well	9	49	56	2.41
	e. Using trusted sources	9	40	65	2.49
Total		52	191	289	2.41
2. Open mindedness	a. Considering other ideas in making their own decisions	33	51	30	1.97
	b. Being tolerant of different ideas	5	49	60	2.48
	c. Changing opinions when they are refuted by strong facts/evidence	8	49	57	2.42
Total		46	149	147	2.29

3.Analyticity	a. Being aware of the risks and possibilities that will occur from an event	14	69	31	2.14
	b. Being able to give a reason when faced with complicated problems	10	26	78	2.59
	c. Being able to provide objective evidence against a particular problem	8	63	43	2.30
	d. Being able to think logically	14	38	62	2.42
	e. Estimating advantages and disadvantages of phenomena	13	58	43	2.26
	f. Being able to relate results of observation with existing (knowledge) theories	6	49	59	2.46
	g. Looking for alternative solutions of problems	13	59	42	2.25
Total		78	362	358	2.34
4.Systematicity	a. Thinking and acting in organized manner	20	38	56	2.31
	b. Focusing on problems	13	23	78	2.57
	c. Using inquiry methods to solve problems	25	32	57	2.28
	d. Do not hurry to draw a conclusion from information	21	79	14	1.93
Total		79	172	205	2.27
5.CT self confidence	a. Having confidence in his own opinion and decisions	21	50	43	2.19
	b. Believing on results of self-reasoning	6	21	87	2.71
	c. Having confidence to lead other people to a rational problem solving	8	19	87	2.69
	d. Daring to take action or a decision	14	32	78	2.73
	e. Being proud of your own abilities to solve problems	10	54	50	2.35
Total		59	176	345	2.53
6.Inquisitiveness	a. Having a high learning spirit even when the application of the studied science has not been seen directly	54	12	48	1.94
	b. Having spirit to learn new things	24	30	60	2.31
Total		78	42	108	2.12
7.Cognitive maturity	a. Do not get rid of problems	5	54	55	2.43
	b. Realizing that some problems are related to each other	6	50	48	2.19
	c. Realizing that an assessment must be based on criteria	13	41	60	2.41
	d. Avoiding actions that confuse /intimidate others with critical thinking skills possessed	10	52	52	2.36
	e. Showing calm in thinking	10	62	42	2.28
	f. Understanding other people's way of thinking	4	32	78	2.64
Total		48	291	335	2.38

According to the results in Table 1 most of the students responded with "agree" to the positive statements, which shows that self-assessment regarding the dispositions for critical thinking is at a high level. The lowest frequency is the score of "disagree" with all positive statements for disposition of critical thinking. The frequency of the responses shows that the majority of students assessed the highest level of disposition for critical thinking in five areas: Truth-seeking, Systematicity, CT self confidence, Inquisitiveness and Cognitive maturity and an medium level in two areas: Open mindedness and Analyticity.

The descriptions of each of the scales and subscales can be suggestions for possible teaching or assessment strategies. According to Facione and Delphi (1990), the Truth – seeking dimension focuses on the attribute of being open and willing to seek the best knowledge in each setting, being fearless in forming questions and being honest and objective in pursing research, despite results that do not align with one's concerns or opinions. In our research Truth-seeking had its highest mean score in statement a - Trying to find out the truth clearly, having a mean score of 2.57, meanwhile, its lowest mean score was 2.04 in statement c - Being objective/honest toward information. Students tend to be interested and challenged when given a case or problem, thus motivating them to seek and collect evidence to answer the problem. Through the habit of problem-solving carried out by students, they exhibit critical thinking behavior, especially in terms of seeking the truth (Rahmawati et al., 2021)

Open-mindedness refers to being open to different points of view with openness to the possibility of one's own biases. Its highest mean score is in statement b - Being tolerant of different ideas, having a mean score of 2.48, lowest mean score was 1.97 in statement a - Considering other ideas in making their own decisions. This confirms that students who already has open-minded behavior means that is already able to think critically. Analytical dimension focuses on assessing the implementation of analysis and use of evidence to solve problems, foresting possible conceptual or practical challenges and being permanently alert to the need to act. Its highest mean score is in statement b- Being able to give a reason when faced with complicated problems, and lowest mean score was 2.14 in statement a - Being aware of the risks and possibilities that will occur from an event.

Systematically dimension assesses the fact of being systematic, orderly, focused and conscientious in research. Its highest mean score is 2.57 in statement b - Focusing on problems and lowest mean score was 1.93 in statement d - Do not hurry to draw a conclusion from information. Someone with a systematic tendency can be more objective and careful in planning and organizing a study. Self-confidence aims to assess one's confidence in one's decision-making processes. CT- self-confidence permits one to trust the strait of one's own opinions and to guide others in problem solving. In our research Self-confidence had its highest mean score 2.73 in statement d - Daring to take action or a decision. Students who have high self-confidence, are not easily discouraged, and did not afraid of being wrong in solving a problem. Students can construct their knowledge based on their experience, so they can develop thinking skills.

Inquisitive dimensions assess intellectual curiosity and willingness to learn, especially when the application of knowledge is not evident. Its highest mean score is 2.31 in statement b - Having spirit to learn new things. The representation of teaching methods and forms depends on which articulation part of the lesson they apply to. There are insufficiently applied methods and techniques that enable research, participatory, and experiential learning. Of concern is the fact that most active teaching methods where co-operative and active learning can be expressed and at the same time to encourage greater autonomy of students in the learning process are missing or minimally represented (Popovska Nalevska & Kuzmanovska, 2020). The participation in activities at the school influence and motivate the learning behavior of the student.

Cognitive maturity focuses on the faculty of being judicious in making decisions. The cognitively mature can be described as someone who deals with problems, research, and decision-making by considering that some problems are necessarily ill-structured, that some scenarios allow for more than one plausible choice and that many times judges must be made according to norms, settings and evidence preclude certainty. Its highest mean score is 2.64 in statement f. Understanding other people's way of thinking and lowest mean score was 2.19 b - Realizing that some problems are related to each other.

In Table 2, the Mean value for each of the seven scales is presented, with 1 being the lowest score and 3 being the highest. Based on the obtained values, we can make a ranking of each dimension. The highest mean value was obtained for dimension CT self confidence, and the lowest for Inquisitiveness.

Table 2
Statistics per dimension

Dimension	N	Max	Min	Mean
Truth-seeking	114	3	1	2.41
Open mindedness	114	3	1	2.29
Analyticity	114	3	1	2.34
Systematicity	114	3	1	2.27
CT self confidence	114	3	1	2.53
Inquisitiveness	114	3	1	2.12
Cognitive maturity	114	3	1	2.38

The results of the research are very important for drawing certain conclusions and considering the actions that can be taken. Looking at the answers in which the respondents expressed their views, it can be noted that all the above-mentioned statements are considered very important in the teaching process. The respondents in this research assessed those certain statements (related to the ways of acquiring new knowledge and the importance

of evaluating sources of information and a well-formulated argument) are very important, which points to the conclusion that working on oneself is the basis for successfully improving their critical thinking.

Students included in the research were asked how much the teaching methods used by teachers are focused on problem solving. The results of the research show that the majority of students have a positive self-perception and believe in their abilities for critical thinking, but also showed concern that education is largely based on memorizing content. Most of the students considered this approach to be repetitive, uninspiring, without intellectual power and not challenging. Students sometimes didn't express their opinions for fear of being wrong. From the student's perspective, what comes from the teacher's mouth must be correct, and regard what is written in the book as the truth, without the consciousness of critical thinking. Teachers are seen as carriers of information rather than as facilitators, mediators, and teaching strategies are also considered conventional.

Problem-based learning should be performed today's school to a higher level - from acquiring knowledge towards the development of students' creative abilities, which means that the teaching process should to be a process of students' thought activity. In its essence, the role must also be changed; the teacher should not be supplier of ready-made knowledge, but a collaborator and organizer of such classes in which students will solve problems independently and thus develop abstract thinking and overall mental capacities. Problem solving is the most effective means of developing creative thinking.

In an educational context, critical thinking is a resource that allows students to adopt an analytical and evaluative attitude towards their learning, thus improving the quality of the learning process. On the other hand, the learning process contributes to the gradual development and improvement of critical thinking skills. Furthermore, it is believed that the better the content is understood, the easier the learning outcomes will be. Quality learning, learning through understanding, consists of a process of organizing and structuring materials based on understanding the meaning. Hence, the goal of school learning is the acquisition of lasting and usable knowledge and skills. Regarding this issue, young people shared their experiences and views regarding how much the education system in our country teaches young people how to think.

5. Conclusion and recommendations

The connection between critical thinking and education is noticeable when the demands of modern education are emphasized. One of the tasks of modern education is to explicitly teach and develop students' critical thinking skills. Thus, the task of modern education consists not only in acquiring specific knowledge and skills inherent in the teaching content, but also in creating the prerequisites for the adoption and development of a certain style of work and style of thinking. The results of the research show that the majority of students have a positive self-perception and believe in their abilities for critical thinking. The frequency of the responses shows that the majority of students assessed the highest level of disposition for critical thinking in five areas: Truth-seeking, Systematicity, CT self confidence, Inquisitiveness and Cognitive maturity and an medium level in two areas: Open mindedness and Analyticity. Student showed concern that education is largely based on memorizing content. Most of them considered this approach to be repetitive, uninspiring, without intellectual power and not challenging. Teachers are seen as carriers of information rather than as facilitators, mediators, and teaching strategies are also considered conventional. This highlights the shift in focus in contemporary education, which is becoming a demand for critical reflection on the content of teaching, rather than its mere adoption and reproduction. Also, the task of contemporary education is increasingly becoming education for self-education, training for independent learning or independent acquisition of knowledge and mastery of the methods and techniques of acquiring knowledge and learning. It is in this context that critical thinking is one of the skills that can be applied in independent, continuous lifelong acquisition of knowledge.

The **Critical Thinking Inventory** assesses different dimensions of critical thinking skills, and teachers can use the results to identify strategies to promote these skills in their students. Here are some practical implications and actions that teachers can take to foster critical thinking in the classroom:

Encourage Questioning and Inquiry

- Create a classroom environment that encourages open-ended questions.

- Use questioning techniques like Socratic questioning, where challenge students are challenge to think critically about their responses.

- Incorporate inquiry-based learning activities where students explore and solve problems on their own.

Foster Analytical Thinking

- Provide students with complex scenarios or case studies that require analysis.

- Encourage students to identify key components, assess evidence, and draw conclusions.

- Use tools like mind maps or diagrams to help students visually organize their thoughts.

Promote Reflective Thinking

- Incorporate reflection activities like group discussions that allow students to reflect on what they've learned.

- Ask students to critique their own thinking processes and evaluate their assumptions.

- Encourage self-assessment and peer assessment to help students recognize different perspectives.

Teach Logical Reasoning and Argumentation

- Teach students how to construct clear, logical arguments supported by evidence.

- Provide opportunities for students to engage in debates or discussions where they must present reasoned arguments and critique others' ideas.

- Teach students how to identify logical fallacies and improve their ability to assess arguments critically.

Encourage Open-mindedness

- Foster a classroom climate where diverse opinions are respected and valued.

- Use activities like role-playing or debates to help students see issues from different perspectives.

- Teach students to weigh evidence from multiple sources before making judgments.

Incorporate Problem-Solving Tasks

- Design problem-solving exercises that encourage students to generate and evaluate multiple solutions.

- Incorporate real-world problems that require critical thinking to solve, such as social issues or scientific challenges.

- Use project-based learning that involves open-ended problems with no one "right" answer, pushing students to think critically about their approach.

Model Critical Thinking

- Explicitly model your own thinking process by thinking aloud during problem-solving or decision-making.

- Share examples of how can analyze and critique information, explaining reasoning to students.

- Encourage students to ask questions when they don't understand teacher thought process.

By applying these strategies, teachers can cultivate a classroom environment that encourages students to develop and strengthen their critical thinking skills.

6. Limitations and Suggestions for Future Research

Further research is recommended to examine additional mediating factors that may influence (academic

achievement, department, society, culture, economics contexts). The researchers suggest that future research should include a variety of participants, which include teachers from different contexts, as well as learners. The research sample is randomly selected and most common forms of collecting data, as it provides an unbiased representation of a group. In our research, we used high school students, but we should be cautious when generalizing the results to different school and cultural-economic contexts. One must be cautious when extending conclusions based on the results of this study. The results of the research may have implications for students and teachers, primarily in the education system of the Republic of North Macedonia. The cultivation of critical thinking may seem complicated, but a little change in the way of teaching in the classroom and student attention to the essence and logic behind the knowledge, rather than just accepting all can help in creating problem-based learning and developing dispositions for critical thinking among students.

7. References

Alwehaibi, H. U. (2012). Novel program to promote critical thinking among higher education students: empirical study from Saudi Arabia. *Asian Social Science, 8*(2), 193–204. http://dx.doi.org/10.5539/ass.v8n11p193

Belluigi, D. Z., & Cundill, G. (2017). Establishing enabling conditions to develop critical thinking skills: a case of innovative curriculum design in Environmental Science. *Environmental Education Research, 23*(7), 950-971.

Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York and Toronto: Longmans, Green.

Boonjeam, W., Tesaputa, K., & Sri-ampai, A. (2017). Program development for primary school teachers' critical thinking. *International Education Studies, 10*(2), str. 131–138. https://doi.org/10.5539/ies.v10n2p131

Brookfield, S. D. (2012). *Teaching for Critical Thinking Tools and Techniques to Help Students Question Their Assumptions*. San Francisco, CA: Jossey-Bass.

Calma, A., & Davies, M. (2021). Critical thinking in business education: current outlook and future prospects. *Studies in Higher Education, 46*(11), 2279-2295. https://doi.org/10.1080/03075079.2020.1716324

Chee, C. S., & San O. P. (2012). Reflective thinking and teaching practices: a precursor for incorporating critical thinking into the classroom?. *International Journal of Instruction, 5*(1), str. 167–182.

Emir, S. (2013). Contributions of teachers' thinking styles to critical thinking dispositions (Istanbul-Fatih sample). *Educational Sciences: Theory and Practice, 13*(1), 337–347.

Facione, P. A. (2000). The Disposition Toward Critical Thinking: Its Character, Measurement, and Relationship to Critical Thinking Skill. *Informal Logic, 20*(1), 61–84. https://doi.org/10.22329/il.v20i1.2254

Facione, P. Sanchez, C., Facione, N., & Gainen, J. (1995). The disposition toward critical thinking. *JGE:The Journal of General Education, 44*, 1–25.

Fung, D. (2014). Promoting critical thinking through effective group work: A teaching intervention for Hong Kong primary school students. *International Journal of Educational Research, 66*(1), 45–62. http://dx.doi.org/10.1016/j.ijer.2014.02.002

Lewine, R., Sommers, A., Waford, R., & Robertson, C. (2015). Setting the mood for critical thinking in the classroom. *International Journal for the Scholarship of Teaching and Learning, 9*(2), 1–4. https://doi.org/10.20429/ijsotl.2015.090205

Lipman, M. (2003). *Thinking in Education*. Cambridge: Cambridge University Press.

Marin, L. M., & Halpern, D. F. (2011). Pedagogy for developing critical thinking in adolescents: Explicit instruction produces greatest gains. *Thinking Skills and Creativity, 6*(1), 1–13. https://doi.org/10.1016/j.tsc.2010.08.002

Moeti, B., Mgawi, R. K., Smitta, M., & Waitshega, T. (2017). Critical thinking among post-graduate diploma in education students in higher education: Reality or fuss? *Journal of Education and Learning, 6*(2), 13–24. https://doi.org/10.5539/jel.v6n2p13

Ongesa, C. M. (2020). Critical thinking skill gap in the Kenyan educational curriculum: The 21st-Century skills for the Global Citizen. *Journal of Interdisciplinary Studies in Education,* Volume 9, Issue SI, 178-191.

https://doi.org/10.32674/jise.v9iSI.1860

Popovska Nalevska, G., & Kuzmanovska, M. (2020) Teaching methods as a factor of students learning motivation. *Education,* 2 (3-4). pp. 40-50. https://eprints.unite.edu.mk/582/

Rahmawati, M., Kurniati, D., Trapsilasiwi, D., & Osman, S. (2021). The students' truth-seeking behaviour in solving the problems with no specified universal set based on ideal problem solving. *Kreano,* 12 (2), 302-311. https://journal.unnes.ac.id/nju/index.php/kreano/article/view/32549

Piergiovanni, P. R. (2014). Creating a critical thinker. *College Teaching,* 62(3), 86–93. https://doi.org/10.1080/87567555.2014.896775

Redhana, I.W., Karyasa, I.W., & Atrisa, N.P. (2017). Development Of Critical Thinking Disposition Inventory. *Advances in Social Science, Education and Humanities Research,* volume 134, 195-198.

Redhana, I.W., & Sudria, I.B.N. (2020). Validity and Reliability of Critical Thinking Disposition Inventory. *3rd International Conference on Innovative Research Across Disciplines (ICIRAD 2019). Advances in Social Science, Education and Humanities Research,* volume 394, 282-287. http://dx.doi.org/10.2991/assehr.k.200115.046

Saidin, N. D., Khalid, F., Martin, R., Kuppusamy, Y., & Munusamy, N. A. P. (2021). Benefits and challenges of applying computational thinking in education. *International Journal of Information and Education Technology,* 11(5), 248–254. https://doi.org/10.18178/ijiet.2021.11.5.1519

Shim, W., & Walczak, K. (2012). The impact of faculty teaching practices on the development of students' critical thinking skills. *International Journal of Teaching and Learning in Higher Education,* 24(1), 16–30. https://files.eric.ed.gov/fulltext/EJ977179.pdf

Styers, M. L., Van Zandt, P. A., & Hayden, K. L. (2018). Active learning in flipped life science courses promotes development of critical thinking skills. *CBE Life Sciences Education,* 17(3), 39. https://doi.org/10.1187/cbe.16-11-0332

Temple, C., Meredith K. & Steele, J.L. (1997). *How children learn: A statement of first principles.* Geneva, NJ: Reading & Writing for Critical Thinking Project.

Tiruneh, D. T., Verburgh, A., & Elen, J. (2014). Effectiveness of critical thinking instruction in higher education: A systematic review of intervention studies. *Higher Education Studies,* 4(1), 1–17. https://doi.org/10.5539/hes.v4n1p1

Wallace, E. D., & Jefferson, R. N. (2015). Developing critical thinking skills: assessing the effectiveness of workbook exercises. *Journal of College Teaching and Learning,* 12(2),101–108. https://doi.org/10.19030/tlc.v12i2.9187

Warburton, E., & Toff, B. (2005). The effect of perceived learner advantages on teachers' beliefs about critical-thinking activities. *Journal of Teacher Education,* 56(1), 24-33. https://doi.org/10.1177/0022487104272056

Yinger R. J. (1980). *Can we really teach them to think? In Young R. E. (Ed.), New directions for teaching and learning: Fostering critical thinking.* San Francisco, CA: Jossey-Bass.

Factors contributing to the decline of Chabacano language among Gen Z speakers in Cavite

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Abstract

This study aims to identify the factors contributing towards the decline of the Chabacano language among Gen Z speakers in Cavite. Using Purposive Sampling, 50 participants from Ternate Integrated National High School and 50 from Cavite National High School were selected to participate in the study. All the participants were senior high school students from different strands. A five-point Likert scale survey checklist questionnaire was used as a quantitative data research tool for the quantitative data to fulfill the research objectives. This study concludes that Most of the Generation Z speakers strongly agreed that Chabacano Language is declining because of Media Influence, Education, and Family practices that affect the identity of this dialect. However, respondents strongly believe that the Chabacano language is not utilized frequently because they favor English or Filipino. Additionally, Gen Z participants feel that the education system prioritizes English and Filipino over Chabacano. They also wish for their families to motivate them to use Chabacano more frequently. Therefore, this paper concludes that these factors can contribute to the declining dialect. With this, this study can be a clear guide of teachers, parents, students and researchers to identify the key factors affecting the decline of Chavacano speakers among younger generations.

Keywords: Chavacano, Cavite dialects, Philippine linguistics, Creole, Ternate

Factors contributing to the decline of Chabacano language among Gen Z speakers in Cavite

1. Introduction

This study examines the factors Contributing to the Decline of Chabacano Language Among Gen Z Speakers in Cavite. According to Lear (2023), the Chabacano language, commonly referred to as Creole, is mostly spoken in the Philippines, particularly in Cavite, Zamboanga, and other parts of Mindanao provinces. This language is formally known as Philippine Creole Spanish. Each nation possesses its own unique language, which can be further categorized into various dialects. One particularly fascinating aspect of the Spanish interaction with local languages is its relationship with Chabacano (or Chavacano), a linguistic combination that blends Hispanic and Filipino influences, originating from the Spanish spoken in the Philippines. "Like many other creole languages, the name Chabacano comes from a derogatory Spanish term that refers to clumsiness, lack of refinement, and vulgarity" (Lipski, 2001, p. 120).

The three primary languages of Philippine Creole Spanish—Cavite, Ternate, and Zamboanga—are referred to as Chabacano, or Chavacano (Lipski, 2001). According to Lesho (2013), the term "Chabacano" refers to a variety of creoles. Nonetheless, Ternate locals still prefer the word "Bahra" while the majority of "Chavacano" is used by Zamboanga residents (De Ocampo, 2007). The Manila Bay PCS group includes the Ternate and Cavite dialects. Caviteño evolved as a descendant of Ternateño, which is acknowledged as the Philippines' earliest Spanish-based Creole (Vicente & Cheng, 2024).

Chabacano (Chavacano) is a language that has been passed down through generations for many centuries. The majority of Chavacano speakers currently dwell in Zamboanga City, which is in the Philippines' southwest Mindanao area (Lear & Reyes, 2023). Other forms of Chabacano (Chavacano) are still spoken in some places in Mindanao, including Davao City and Cotabato, as well as in Luzon of Cavite and Ternate (Álvarez-Pier, 2018). Chabacano is prominent in the province of Cavite; it is believed to have emerged from the Portuguese lexicon language in Spain. It originates from a community of immigrants called the Mardikas during the 17th century. Following the Spanish colonization of the Philippines, Cavite became one of the provinces to adopt Chabacano. The people of Cavite used it extensively during the late 1970s and 1990s. Chabacano is regarded as one of Cavite's most treasured cultural heritages and is considered to be endangered.

As Chen (2020) indicates, Speakers of Chabacano identify with this mixed Spanish language and have even made efforts to promote its usage across the entire nation. Chabacano is considered one of the most significant cultural aspects of Cavite and is believed to be facing extinction. In this research, the researchers will examine whether the Chabacano language in Cavite is experiencing decline in this generation. According to Tirona (1924), a limited number of speakers may have led to the variety being overlooked, and such low numbers could also threaten its overall survival. Fortunately, nearly a hundred years after Tirona's findings, Ternate Chabacano is still spoken in the same town he studied, indicating it has not vanished. It is acknowledged that smaller linguistic communities can maintain their minority language if certain conditions related to linguistic attitudes and functions are met, despite being more susceptible to changes in their speaker demographics (Thomason 2015). Nevertheless, the focus on academic oversight, rather than the lack of interest from the speakers themselves, holds particular importance in this situation. Isolated by social factors that could lead speakers to abandon their language, Tirona (1924) emphasizes his work as a linguist, committed to recording this particular dialect within the Philippine linguistic environment, despite social forces that could lead speakers to abandon their language.

The tradition of studying Chabacano is relatively extensive, with contributions from both local and international linguists. Previous studies have investigated not only the descriptive and historical components of the evolution and organization of its varieties but also the differing and at times unclear views concerning the

status and nature of Chabacano, especially among its speakers (Lipski, 2010). However, there has been limited focus on the discussions among linguists regarding these varieties. In any discipline or subfield, such as Creole research or Chabacano studies, attaining a degree of maturity requires a reflective look at its history and tradition, along with a continuous evaluation of its essential principles. This research aims to fill this void by identifying and analyzing the factors that may contribute to the decline of the Chabacano language among Generation Z speakers in Cavite, particularly in the city of Cavite and Ternate.

This study seeks to explore the factors contributing to the decline of Chabacano language among Gen Z speakers in Cavite, particularly in Ternate. Chabacano has survived despite the existence of other languages. The researchers are motivated to write this study in order to address difficulties pertaining to it. Investigating Chabacano by looking at the particular causes of its decline in Cavite is so essential. As well as identifying their familiarity with the language and examining what would be the reason behind its decline.

2. Materials and Methods

This study employed the use of quantitative research and case study approach, conducting a thorough examination of the factors contributing to the decline of Chabacano language among Gen Z speakers in Cavite. To evaluate and resolve the research problem, this quantitative data will be analyzed to measure Generation Z's preference with Chabacano. By combining all the data collected from the data gathering procedure, the research aims to comprehensively understand the status of Generation Z's Chabacano speakers in Cavite and the reasons behind its potential decline.

The study utilized a purposive sampling method in selecting its participants. A total of 50 students from Ternate, Cavite, and an additional 50 students from Cavite City took part in the research. These participants were senior high school students, specifically in grade 11, from the Humanities and Social Sciences (HUMSS) and Accountancy, Business, and Management (ABM) tracks in Ternate, Cavite. A class of senior high school students from the Home Economics (HE) strand in Cavite City also served as survey respondents. All participants were native Chabacano speakers. Essentially, this study employed purposive sampling to optimize the selection of respondents. The respondents were individuals who were born and raised in their respective hometowns. This approach aids researchers in mapping the characteristics that are crucial for analyzing the statistics obtained from the respondents.

The research instrument was a standardized survey checklist questionnaire assessed by experts. It includes seven survey items aimed at identifying the factors that contribute to the decline of the Chabacano language among Gen Z speakers in Cavite. The questionnaire employs a 5-point Likert scale to gauge respondents' levels of agreement and gather their interpretation on the implementation of the Chabacano dialect in their schools. Furthermore, the researchers applied mean and standard deviation to analyze the collected data. The surveys and data collecting were conducted to ascertain how Generation Z Chabacano language has an effect on speakers. The researchers learned more about the difficulties in maintaining and advancing the Chabacano dialect in the area by speaking with respondents and enlisting the help of two participating schools. The results of this phase demonstrated the cultural value of Cavite's Declining language of Chabacano and the necessity of initiatives to preserve and revitalize this language for coming generations.

This study was carried out a month ago when the researchers began investigating the research gap regarding the declining Chabacano language among Gen Z speakers in Cavite. The researcher observed that there is a necessity for a research paper to comprehend and identify the reasons behind the decline of the Chabacano language among Gen Z speakers in Cavite. Initially, the researchers requested permission from the institutions that the respondents used in the data gathering procedure. An approval letter was provided to the respondents in Ternate Integrated National High school and Cavite National high school signed by the principal and department heads. The approval letter sufficed information on the purpose of the study, the terms of confidentiality, and the voluntary clause for participation. Upon acknowledging the terms, the respondents answered a survey

questionnaire provided by the researchers. Data gathering was carried out last November 8, 2024.

The answers provided by the respondents on the survey questionnaire were categorized for analytical purposes. The instrument contains 7 factors including media influence, education, changing of cultural identity, family practices, peer influence, negative attitudes towards Chabacano and lack of community support. The researchers used a Questionnaire Checklist with a 5-point Likert scale or Agreement scale. To validate the coding, assign 5 for strongly agree, 4 for agree, 3 for undecided, 2 for disagree, and 1 for strongly disagree. To clarify the computed mean score, Table 1 has been provided.

3. Results and Discussion

Table 1
Respondent's interpretation towards the factors of Chabacano language in Ternate Cavite

Factors (Media influence)	M	SD	Interpretation
I find myself using English or Filipino more often because of the media I consume	4.38	5.8999	Strongly Agree

Table 1 shows one of the main factors on the decline of the Chabacano language in Ternate, Cavite. The findings indicate that the respondents achieved a mean score of 4.38 with a standard deviation of 5.8999. According to the 5-point Likert scale, this suggests that the respondents **Strongly Agree** that media influences are contributing to the decline of the Chabacano language in Cavite. Respondents noted that they frequently use English or Filipino due to the media they consume. The results show that respondents from Generation Z Strongly Agree that media influence plays a role in the decline of the Chabacano language in Ternate Cavite.

Numerous studies have been conducted to examine attitudes surrounding various languages, such as the research on cognition in relation to one's mother tongue, attitudes towards English, Chavacano, and Filipino through a Structural Equation Modeling Approach with Bootstrap Analysis (Go Silk et al., 2020). The findings from this research indicate that the utilization of Chavacano as a lingua franca plays a mediating role in cognitive processes linked to the native language. However, the attitudes towards English and Filipino are not affected by this mediation; rather, they have a direct influence on cognition in the mother tongue.

As a result, a decrease in familiarity with Chavacano leads to a decline in cognitive processes within the mother tongue that employs Chavacano as a lingua franca. Furthermore, having a more positive view of Filipino enhances cognitive abilities in the mother tongue, whereas attitudes toward English negatively affect cognition in that same language. In other words, teaching in the mother tongue using a lingua franca approach does not hinder the process of acquiring a second (L2) or third (L3) language, but it can significantly affect cognition in the lingua franca depending on how similar the learner's ethnolinguistic background or dialect (L1) is to the lingua franca.

It would be beneficial for the Department of Education to embrace a different strategy in its application of mother tongue instruction to address multilingualism. While this may seem like a bold move, if the objective is to bring about changes that yield positive outcomes, it is a path worth exploring. Research has already provided the necessary evidence; the next step is to make a decision (Go Silk et al., 2020).

Table 2
Respondent's interpretation of the factors on the Chabacano language in Cavite City

Factors (Education)	M	SD	Interpretation
I feel that my education emphasizes English and Filipino over Chabacano	4.18	5.3049	Strongly Agree

Table 2 indicated the interpretation regarding the impact of education on the declining Chabacano language in Cavite City. The mean score from the respondents was 4.18 with a standard deviation of 5.3049, indicating that they **Strongly Agree** that education prioritizes English and Filipino over Chabacano. In essence, the respondents asserted that education influences the Chabacano language identity among Generation Z,

contributing to the language's decline.

When it comes to Chabacano language in Cavite, Whinnom (1956) notes that "the conditions under which the language originated are no longer relevant in Cavite" and that "for Caviteños, it has become more of an obstacle than a bridge in communication with both the locals and Spaniards" as a transition to English is taking place. Similarly, Llamado (1969) claims in her thesis that Cavite City's Chabacano population is quickly declining. Similar to Tirona's 1924 assertions, she sees this evolution as restricting the language's value to the extent that language scholars have not been interested in it until recently.

According to a number of memoranda and instructions published by the Department of Education (DepEd), our nation has used various forms of instruction since the time of colonization. There were no explicit regulations at the time governing the usage of MOI in the field of education. However, this changed when the government of the Philippines' 1987 Constitution's language provision, which was included in Article XIV, Sections 6 and 7, gave the MOI issue a clear, legal foundation. The National Board of Education (NBE) established a policy on bilingualism in schools (NBE decision No. 73-7 s. 1973), and in accordance with the 1987 constitutional mandate, The Department of Education, Culture, and Sports (DECS) issued its language policy.

According to Metila et al. (2016), utilized two models to attain the objective of realizing basic education in the mother tongue across the countries, the Multiple Monolingual Model (MMM) and the Lingua Franca Model (LFM). In the MMM, students are grouped according to their mother tongue or first language. The learners are then taught with their mother tongue as the language of instruction. On the other hand, in communities that are highly culturally diverse, where students come from different linguistic backgrounds, a language is nominated to serve as the 'mother tongue.' The trouble seems to arise from the LFM because students coming from different ethnic groupings are taught using a local language which they are not fluent yet. In the LFM, students do not attain the promised benefits of 'mother tongue' instruction.

Table 3
Respondent's interpretation on the factors for the language of Chabacano in Ternate and Cavite City

Factors	M	SD	Interpretation
Education			
I feel that my education emphasizes English and Filipino over Chabacano	4.25	18.708	Strongly Agree
Family practices			
I wish my family would encourage me to speak Chabacano more often	4.18	16.047	Strongly Agree

Table 3 illustrates the interpretation regarding the influences of Education and Family practices on the decline of the Chabacano Language in Ternate and Cavite City. The average mean score from the respondents was 4.25 with a standard deviation of 18.708 for Education, and 4.18 with a standard deviation of 16.047 for Family practices, indicating that respondents Strongly Agree that Education prioritizes English and Filipino over Chabacano. Additionally, Gen Z speakers express a desire for their families to encourage them to use Chabacano more often. In other words, respondents noted that Education and the teaching in the Philippines play a significant role in shaping the identity of the Chabacano language for Generation Z speakers, as well as the influence of family practices and family language planning within the Chabacano dialect.

According to Lesho (2013), Chabacano is currently regarded as a marginalized language in the area and is mostly used in limited settings, like family conversations and ceremonial occasions. Despite efforts by local authorities to encourage the use of it as a secondary language and as a medium of teaching in educational institutions, the Chabacano dialect has been pushed to the periphery of linguistic relevance due to its dominant status and influence of English [superstrate] and Filipino (Tagalog) languages through various media. According to Romanillos (2006), the quick "Tagalization" of its vocabulary presents a significant obstacle since it makes it more difficult to distinguish Chabacano among other languages and affects its particular linguistic position in both Ternate and Cavite.

The difficulties of regional stability and language fidelity have emerged in recent years. Last year, Dr. Enrique "Ike" Escalante, a former and retired department of Education superintendent and author of multiple books in Chabacano, was interviewed for a documentary broadcast by GMA News and Public Affairs. He voiced his worries about the language's uncertain future and Caviteños' declining interest in learning to speak their own dialect, particularly among younger people. Furthermore, even though the community has a variety of oral traditions and regional customs, there is a dearth of documentation and reliable resources.

One of the factors that contributed to the decline of the Chabacano language is family practices. Spolsky's theory of language ideology holds that a community's shared set of beliefs creates a consensus around language, giving different versions of the language prestige and worth. To put it simply, language ideology mirrors what people believe should happen and represents the community's views of language practices without the need for a management (Piller & Gerber, 2018). Participants from Generation Z expressed a want for their relatives to support them in using Chabacano more often. Language practices, on the other hand, describe people's real behaviors. Parents' linguistic ideologies influence the importance they place on various languages within the family and influence their intentional or automatic language choices in daily conversations with family members.

Family planning of language reflects the linguistic beliefs of Gen Z's parents, in a broader sense, mirrors the prevailing language attitudes, ideologies, and parenting styles found in society. The social and familial context plays an essential role in shaping the language beliefs of parents and impacts their choices regarding language management, which consists of the explicit and implicit strategies they implement for language use and acquisition at home. In particular, their language selection significantly shapes the actual language practices within the family, which is why they prefer using English and Filipino instead of Chabacano. That's also an interpretation that some students do not like to speak their mother tongue after starting school and instead prefer to communicate in the language spoken by their school peers.

Table 4
Respondent's level of Agreement towards the decline of Chabacano language in Ternate and Cavite City

Factors	M	Interpretation
Media influence		
I find myself using English or Filipino more often because of the media I consume	3.93	Agree
I believe that social media promotes languages other than Chabacano	3.92	Agree
Education		
I feel that my education emphasizes English and Filipino over Chabacano	4.25	Strongly Agree
I wish there were more opportunities to learn Chabacano in my school	4.10	Strongly Agree
Changing of Cultural Identity		
I feel less connected to my Chabacano heritage than previous generations	3.72	Agree
I believe that using Chabacano is less important to my identity as a Gen Z speaker	2.90	Undecided
Family practices		
My family prefers to speak English or Filipino at home instead of Chabacano	3.78	Agree
I wish my family would encourage me to speak Chabacano more often	4.18	Strongly Agree
Peer Influence		
My friends often use languages other than Chabacano when we communicate	3.18	Agree
I feel pressured to Use English or Filipino to fit in with my peers	2.74	Undecided
Negative Attitudes towards Chabacano		
I believe that Chabacano is not a suitable dialect to speak in this modern times	2.75	Undecided
I believe that Chabacano is viewed as less valuable than other languages in my community	2.98	Undecided
Lack of Community Support		
I think there are not enough community programs promoting the use of Chabacano	3.76	Agree
I feel that my community does not prioritize preserving the Chabacano language	3.33	Agree

Table 4 shows all the information gathered through the data collection process, illustrating the Mean for each indicator. The first statement in Education received the highest mean score of 4.25, corresponding to the level of Agreement "Strongly Agree," whereas the statement with the lowest mean of 2.9 corresponds to the level of Agreement "Undecided."

In both Chabacano in Ternate and Cavite, the decline of the language does not seem as severe. In Ternate, the transmission of the language to successive generations continues (Lesho & Sippola, 2013), although it

remains at risk due to its status as a minority language, a decreasing number of speakers, and restricted contexts of use. The speaker count has been declining, dropping from 8000 in the 1970s to just 3000, and the population of Chabacano speakers has become relatively smaller in comparison to the increasing overall population of the town over time (Sippola, 2010). However, similar to Cavite City, Chabacano in Ternate continues to play a significant role in local identity.

About 3,000 people in Ternate and Cavite City speak Chabacano, although in Ternate, they make up roughly 22% of the total population, whereas in Cavite City, they only make up about 3% in (Lesho, 2013). Ternate was the initial location where Chabacano developed before other varieties emerged, the demographic situation there shows a more stable but nonetheless insecure sociolinguistic status. Additionally, a social and linguistic barrier among Ternateños and outsiders has been created and maintained by the community's relative isolation compared to Cavite City.

4. Conclusion

This paper comes to a conclusion based on the study's findings, that mostly Gen Z speakers in Cavite areas speak Tagalog or English rather than Chabacano. It explains why Chabacano is being declined for those Gen Z speakers. The paper contains those factors that explain why Chabacano is being declined in Cavite areas, specifically on Gen Z's. The researchers conducted a data gathering in Ternate and Cavite City to find the answer on why Chabacano is declining; the research conducted through a quantitative research and case study approach, we involved 100 respondents from Ternate Integrated National High School and Cavite National High School. The findings reveal a strong unity among the respondents, who significantly agree that media influence and education play significant roles in the decline of Chabacano. The respondents strongly believe that exposure to English and Filipino through media, particularly social media, has led to a preference for these languages over Chabacano. Additionally, the education system's emphasis on English and Filipino over Chabacano has further excluded the language, impacting its identity and usage.

This study provides an insight to address the research problems to what factors contribute to the decline of the Chabacano language among Gen Z speakers in Cavite. Based on the study and results, the researchers now understand why Chabacano are declining in Cavite areas. This research can help the dying Chabacano language to be able to diffuse again and preserved for future generations. Language teachers or the education system can use this paper as a motivation to teach Chabacano language in their school and with that, they help the declining Chabacano to be able to diffuse again.

4.1 Recommendations

This study can help the teachers and schools administrators in Ternate and Cavite City to identify the key factors affecting the decline of Chabacano speakers among younger generations. With these findings, the teachers, especially those who are teaching Language and Social Studies can create programs addressing the issue of declining Chabacano speakers in their school and community. In addition, this study can provide clear directions to the Parent-Teacher Conference to address the decline of Chabacano speakers in Ternate and Cavite City. The results of this study can be an enlightenment to the students of Cavite, most importantly, those who live in Ternate and Cavite that Chabacano as a dialect is slowly dying. With this, the students can identify the factors that they can work with to avoid the dialect from declining. This study is comprehensible enough for the students to be enlightened to take an action to revitalize the Chabacano dialect in Cavite.

This study can provide a guide to future researchers and improve knowledge about the decline of Chabacano language. Hence, improving knowledge about Chabacano can help and give more opportunity for every student or even the normal citizen to explore this kind of dialect. Respondents must know how to apply this in their everyday life especially to develop their awareness and importance of Chabacano dialect in their province or in the modern world. This paper can help the Caviteños; as well as the Asian, to discover the sinking dialect and

recover its importance. For that interpretation, we must produce more research papers about the dialects that are limited or have been forgotten. This research is highly recommended for future research papers from both local and foreign linguistics, as well as the teachers, and to those researchers who wanted to introduce their own selves into the languages and dialects, to have an in-depth inquiry of the Chabacano.

With these findings, future researchers who seek an answer about the decline of the Chabacano in society can now clearly figure out the solution. This recommendation can undoubtedly direct future scholars of language to have a broad knowledge and reflection for future research papers. Considering there are limited resources about this research it may help to explain the phonological terms and reasons behind it, these findings can viewpoint the Chabacano dialect within the provinces of Cavite. Moreover, the teachers and future researchers can use this finding to explore and examine the phonological awareness of the declining Chabacano dialect. This paper can address Caviteños, as well as the teachers, to develop and have an inclusive understanding of the Chabacano dialect.

5. References

Lear, M. F. (2023). A Comparative Study on the Productive Proficiency Levels among Three Generations of Chabacano Native Speakers of Zamboanga City. *International Journal of Membrane Science and Technology*, *10*(2), 15-20. https://doi.org/10.15379/ijmst.v10i2.1146

Lipski, J. M. (2001). The place of Chabacano in the Philippine linguistic profile. Estudios de Sociolingüística, 2(2), 119-163. https://doi.org//10.1558/SOLS.V2I2.119

Lesho, M. (2013). The Sociophonetics and Phonology of the Cavite Chabacano Vowel System. Ph.D. dissertation, Graduate School, Ohio State University. https://rave.ohiolink.edu/etdc/view?acc-num=osu138824950

De Ocampo, E. (2007). Their History, Languages, Customs and Traditions. Manila, Philippines: National Historical Institute.

Vicente, A & Cheng, C. (2024). Language Identification of Philippine Creole Spanish: Discriminating Chavacano from Related Languages. In *Proceedings of the Eleventh Workshop on NLP for Similar Languages, Varieties, and Dialects (VarDial 2024)*, pages 188–196, Mexico City, Mexico. *Association for Computational Linguistics.* https//doi.org/10.18653/v1/2024.vardial-1.16

Lear, M. F., & Reyes, A. F. (2023). Difficulties and strategies of teaching Spanish language to collegiate Chavacano learners. *Forum for Linguistic Studies (Transferred)*, *5*(1), 103-116. https://doi.org/10.18063/fls.v5i1.1590

Álvarez-Pier, CM (2018). The Chavacano language of the Philippines: Facing the challenges of the 21st century. In: The Economic and Commercial Influence of Spanish-Based Languages. Madrid: *Ministerio de Economía y Empresa*, pp.178.

Aguilar, Leo Angelo M., Benitez, Sweet Ann G., Badjeles Marife & Covento, Pauline (2024). Revealing the Unheard Language: A Comprehensive Study on the Dying Dialect of Chabacano in Cavite. *International Journal of Advanced Multidisciplinary Research and Studies.* 642-650. https://doi.org/10.62225/2583049X.2024.4.3.2833

Chen, J. (2020). A Study on the Development of Spanish in the Philippines. In *Proceedings of the Ninth Northeast Asia International Symposium on Language, Literature and Translation, edited by Lisa Hale Cox, Jin Zhang, Jon Lindsay and Qi Fang*. 568-575.

Tirona, T. T. (1924). *An Account of the Ternate Dialect (of Cavite, PI)*. Class of Philippine linguistics, University of the Philippines.

Thomason, S. G. (2015). *Endangered languages*. Cambridge University Press.

Lipski, J. M. (2010). Chabacano y español: resolviendo las ambigüedades. *Lengua y migración/Language and Migration*, *2*(1), 5-41. http://hdl.handle.net/10017/10808

Go Silk, B., Medriano, R., Dela Cruz, S.B., Deran, J.J., Alieto, E., Abdon, M., Rillo, R., & Lucas, R.I. (2020). Cognition toward the Mother Tongue, Attitude toward English, Chavacano, and Filipino: A Structural

Equation Modeling Approach with Bootstrap Analysis. *Asian ESP*, *16*(1.2), 5-28. https://ssrn.com/abstract=3570991

Whinnom, K. (1956). Spanish Contact Vernaculars in the Philippine Islands. Hong Kong: Hong Kong University Press.

Llamado, L. C. (1969). An analysis of the basic structures of Cavite Chavacano. Philippine Normal College MA dissertation.

Llamado, L. C. (1972). The phrase-structure rules of Cavite Chavacano. Philippine Journal of Linguistics 3. 67-95.

Department of Education (2020). K to 12 Curriculum Review. Retrieved from https://www.deped.gov.ph/2020/02/28/deped-open-to-more-dialogue-on-improvementof-mtb-mle-imple mentation/

Lesho, M. & Sippola, E. (2013). The sociolinguistic situation of the Manila Bay Chabacano-speaking communities. *Language Documentation & Conservation 7. 1*-30.

Romanillos, E. L. A. (2006). Chabacano Studies: Essays on Cavite's Chabacano Language and Literature. Philippines: Cavite Historical Society. Kayumanggi Press, Inc.

Piller, I., & Gerber, L. (2018). Family language policy between the bilingual advantage and the monolingual mindset. *International Journal of Bilingual Education and Bilingualism*, *24*(5), 622–635. https://doi.org/10.1080/13670050.2018.1503227

Video Documentary

GM News & Public Affairs. "Chabacano Yo (Ako ay Chabacano)." 2013. Online video clip. YouTube. Accessed on 16 January 2014. I-Witness: "Chavacano Yo", a documentary by Howie Severino (full episode)

Content analysis of the Bachelor of Technical-Vocational Teacher Education's curriculum: Basis for retooling workshop

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Abstract

Analysis on the content of a curriculum is a pivotal undertaking to ensure that its contents are still relevant in addressing the needs of the students. One way of doing this is scrutinizing the contents of the syllabus were essential information such as topics, teaching and learning strategies and ways of assessment are enclosed therein. Also, the TOS and TQ's were essential, as well. At this juncture, the study was undertaken to analyzed the contents of the those documents which includes the following findings: Majority of the verbs used in stating the Intended Learning Objectives (ILO) belongs the Lower Order Thinking Skills (LOTS) category; the limited number of learning activities subjects and offers varieties of assessment tasks and utilizes only a handful number of assessment tasks; non – major and specialization course conducts summative exams that belongs to middle and high order thinking skills and conducts examination that only measures the cognitive domain and not the psychomotor domain; and most belong to the lower order thinking skill; respectively; furthermore; traditional paper and pencil types of examinations/test items were furnished test types. Almost of all of the courses analyzed were not aligned in the four (4) variables used, presented in the two documents which were the Syllabus and the TOS and TQs, respectively; and an activity called "Project Well Re-Structured Instruction Through Enhancement Sessions (WRITE)" was conceptualized and develop to a retooling tool in enhancing syllabus and TOS documents.

Keywords: systematic literature review, action research, research gaps, research agenda, research framework, curriculum, learning outcomes, retooling workshop

Content analysis of the Bachelor of Technical-Vocational Teacher Education's curriculum: Basis for retooling workshop

1. Introduction

The Bachelor of Technical Vocational Teacher Education (BTVTED) program was crafted in response with the "shift to learning competency-based standards / outcomes-based education" in response to the 21st Century Philippine Teacher – Education framework. (CMO 79, s.2017). Primarily, the program aims to prepare and equip the Pre – service teacher the necessary knowledge and skills to teach different competencies in the Technology and Livelihood Education (TLE) subjects in the Junior High School (specially Grades 9 and 10), in the Senior High School (for the Technical – Vocational Education strands) and in the Higher Education Institution where the same program is being offered.

One of the important document the comprises the course are the syllabus. The course syllabus is an annual document being submitted subject by course Facilitators twice a year and is construed also as the blue print of a course that are offered every semester. According to Wheeler, et. al, the course syllabus is a physical artefact outlining key structural elements of course, including general course information. Considering that this document is the guide of the course facilitator in rendering its contents to students, then it is imperative that such is supposed to be organized and alignment should be evident if they want to achieve every course outcome at the end of each course topics. And the only way in which this is to be achieved is for these documents to be analyzed in terms of its contents.

The table of specifications, on the other hand shows the six cognitive levels of learning domain. It summarizes a representation of these domains through a summative examination. According to Gibson (2017) it can foster, either a mastery, or performance, or orientation towards learning depending on how the elements such as learning objectives and assignments are framed. Additionally, Fives and Barnes (2018) stresses that is used to help teachers frame the decision making process of test construction and to improve validity of teacher's evaluation based of test constructed for classroom used. Moreover, alignment of its contents in the achievement of the learning outcomes and its learning objective is of utmost importance. According to Gronlund and Brookhart (2009), alignment is when there is consistency across the program with precise connections between evaluations, course goals and learning tasks. It is important to align learning objectives with instructional strategies and assessments to ensure that everyone involved is aware of the expectations. In turn, assessments that align with the outcomes and planned learning activities help teachers and students determine whether, and to what extent, the outcomes have been achieved. If assessment mirrors the learning outcomes and the teaching and learning activities, students will achieve the learning outcomes, as teachers and learners will be focused on the same goal (Biggs, 2003).

Learning activities (pedagogies) that are used by the course facilitators should be reflected on both the formative assessments and summative examinations. According to Ruge & Tivendale (2019), if learning strategies are consistent with skills demonstrated on a test, students will more easily reach the learning goals. Tasks and activities serve as opportunities to practice skills taught in preparation to demonstrate it on an evaluation. It is at this light that the study is conceptualized. It aimed at analyzing the contents of these documents specially their alignment and it is hoped to shedding light on the improvement of students' academic achievement.

2. Methodology

Research Design. The study employed the Descriptive – Evaluative research design employing the Documentary Analysis method. The study employed the Descriptive – Evaluative research design employing the

Documentary Analysis method to achieve the desired output. Descriptive research obtains facts about existing conditions or detects significant relationships between current phenomena. Evaluative research is a research method used to evaluate a concept and collects data to help improve a solution. It also entails carrying out a structured assessment of the value of resources committed in the attainment of a goal gathering and analyzing useful information. (www.formplus.blog.) It employs Documentary Analysis where it is defined as: a type of qualitative research in which documents are reviewed by the analyst to assess an appraisal theme. Dissecting documents involves coding content into subjects. Hence, the method is appropriate for it shall appraise documents which serve as basis in delivery of instruction; which somehow measures achievement of students.

Selection and Study Site. The researcher is the Program Head of one of the course program offered in his school and was the one checking the documents which were submitted on a semester basis, hence, this was his avenue of conducting the said endaevor. The study was conducted at Ilocos Sur Polytechnic State College, Santiago Campus, Santiago, Ilocos. Total enumeration of all the syllabus for one school year were utilized for the needed data. A total of 198 syllabus and 99 Table of Specifications (TOS) and Test Questions (TQ's), respectively.

Research Instrument. A simple Matrix created by the researcher was devised in order to obtain necessary data needed in the study.

Data Gathering Procedure. The researcher requested to the permission of the Campus Administrator to accessed the Syllabus, Table of Specifications and Test Questions for two semesters, for the A.Y. 2023 – 2024. Documents consisted of 198 syllabus copies of each courses which are broken down as follows: General Education (11), PathFit and Rizal (5), Professional Education (11), TVTED (12). Areas of specialization consisted of: Automotive Technology (12), Electrical Technology (12), Electronics Technology (12), Food and Service Management (12) and Garments Fashion and Design (12). Table of Specifications and Test Questions were also 99 each, respectively. Additionally, the BTVTED curriculum was also requested to served as guide for the subjects that are offered each semester. Using a matrix which the researcher had developed, the details on each the documents accessed were written on it as preliminary data before finally encoding for analysis purposes. Data gathered were tallied and analyzed.

Analysis of Data. Frequency count and percentages was used to determine the Intended Learning Objectives (ILO), Intended Learning Activities (ILA), Assessments Tasks (AT) and level of domains in the Table of Specifications and types of tests. Coding was used to determine the alignment of the variables found in the syllabus. Elliot (2018) emphasizes that Coding is a way of making text relevant, of essentially indexing or mapping data, to provide an overview of disparate data that allows the researcher to make sense of them in relation to their research questions. Most simply, it can be a way of tagging data that are relevant to a particular point; you may want.

3.   Results and Discussions

The summary of verbs used for the Bachelor of Technical – Vocational Teacher Education (BTVTEd) subjects can be seen in table 1, encompassing all the four major subject groups of the course which includes, General Education (GE), Professional Education (Prof. Ed), Technical Vocational Teacher Education (TVTED) and so with the area of specialization which are: Automotive Technology (AT), Electrical Technology (ET), Electronics Technology (ETC), Food and Service Management (FSM) and Garments, Fashion and Design. It can be seen from the table that it registered a grand total of six hundred ninety eight (698) verbs used in crafting the objectives in the syllabus which were divided into five (5) categories which are Lower Order Thinking Skills (LOTS), Middle Order Thinking Skills, Higher Order Thinking Skills (HOTS), Not in the List (NIL) and Words to be Avoided (WTA). The table clearly manifests that varieties of verbs where used in making the Intended Learning Outcomes (ILAs).

Table 1
Summary of Verbs used in creating objectives in the syllabus

Levels of Thinking Skills / Subjects	GE	Pr.Ed	TVTED	AT	ET	ETC	FSM	GFD	F	%
Lower Order Thinking Skills (LOTS)	98	42	47	29	42	34	45	20	357	51.22
Middle Order Thinking Skills (MOTS)	18	23	12	6	9	19	12	6	105	15.06
Higher Order Thinking Skills (HOTS)	36	20	32	9	12	16	24	11	160	22.96
Not in the List (NIL)	13	7	17	6	4	2	5	8	62	8.90
Words to Avoid (WTA)	5	0	6	1	0	0	1	1	14	2.01
Total									698	100

Legend:
G.E. - General Education
Pr.Ed. – Professional Education
TVTED – Technical Vocational Teacher Education
AT – Automotive Technology
ET – Electrical Technology
ETC – Electronics Technology
FSM – Food and Service Management
GFD – Garments, Fashion and Design

Specifically, almost half of those verbs were categorized to be LOTS with a percentage of fifty one and twenty two (51.22) in which G.E. TVTED F.S.M. and Prof. Ed and E.T. registered to have utilized verbs belong to to this category. This is because every topic and sub topic on these subjects had its own objective, unluckily were chosen among the LOTS group. On the other hand, only a handful of verbs were used under the HOTS category having a subtotal percentage of twenty two and ninety six (22.96) only. When taken singly, only the subjects G.E., TVTED, FSM and Prof. Ed. had dominated the list in using verbs under this category, yet not so many. It is also interesting to note that there were verbs used which were not included in the list with a percentage of eight and ninety (8.90) meaning Instructors used them as verbs, yet how were they able to achieve it at the end of the lesson if such were not enlisted. Furthermore, there were also a small percentage of two and zero one (2.01) verbs which were manifested in the documents as words to be avoided. Same principle applies then, their achievement at the end of the lesson. The generality of an objective for a topic that has sub topics should not tolerated. This means that a general objective for a whole chapter may be done but that will never include the sub topics. This further means that a sub – objective, emanating from the main objective should be made for specific purposes, it is like breaking down the main objective into specific parts for a clearer understanding of the objectives to be achieved at the end of each topic or lesson.

It is interesting to note that as teachers, when we were making out lesson plans; our objectives should be crafted using the three (3) domains of learning, which are the Cognitive, Psychomotor and Affective. Cognitive are the verbs that pertains to mental exercises; psychomotor are the ones that develops the skills while affective are the ones that shapes the behavior or attitude of the learner. While it is true that there is no Lesson Plan in the college level and only the syllabus serves as the guide of the Instructor in going through the course of the subject, the affective domain has been disregarded. There were not listings of verbs that the researcher encountered about the affective domain. Only the two domains were evident and for that matter, the researcher wonders. Knowing that collegiate studies is not an exception to the rule of integrating values to their students because this is still a needed domain, it is imperative then that such be observed to be manifested as verb used in making Intended Learning Outcomes and it should never be a discretion.

Table 2 shows the summary on the distribution of Intended Learning Activities along lecture and laboratory. The first half of the table reveals that among the eight (8) top most activities cited, lecture (35.11%), discussion (27.78%) and reporting (10.22%) ranks the top 3 most used learning activity. This implies that teacher is still the center of learning where he/she provides the necessary information for student learning. While it is true that in the third learning activity is reporting where students are supposed to render their topics, however, the responsibility of the teacher for supplantation of ideas and explanations is still imperative. Other learning activities includes film viewings, demonstrations, performance activities and conducting researches. Such varieties of learning activities will cater to learners' multiple intelligences and individual differences. Zen (2021)

concluded that Teachers look for ways to increase student motivation and engagement in the classroom. Differentiated instruction provides an opportunity for teachers to consider student learning preferences when creating curriculum and potentially allow for students to be more active in their learning. There are numerous ways to differentiate instruction whether it is through the way students are grouped or through content, process, and product.

Table 2
Summary on the Distribution of Intended Learning Activities (ILA's) along Lecture and Laboratory

Activities / Courses	G.E	Pr.Ed	TVTED	A.T	E.T	ELT	FSM	GFD	f	%	Rank
Lecture	19	11	23	17	27	28	15	18	**158**	**35.11**	**1**
Demonstration	1	-	8	4		3	13	2	**31**	**6.89**	**5**
Discussion	17	9	8	5	28	36	15	7	**125**	**27.78**	**2**
Performance Activity	-	-	6	-	-	-	-	-	**6**	**1.33**	**7**
Brainstorming	-	-	5	-	-	-	-	-	**5**	**1.11**	**9**
Film Viewing	7	-	4	16	18	-	-	-	**45**	**10.00**	**4**
Reporting	-	17	3	-	-	-	26	-	**46**	**10.22**	**3**
Conducting Research	-	4	1	-	-	1	-	-	**6**	**1.33**	**7**
Reading /Reflection	10	6	3	6	-	1	-	2	**28**	**6.22**	**6**
Total	54	47	61	48	73	69	69	29	**450**	**100**	
Hands on Exercises	-	-	-	6	5	10	57	6	**84**	**65.63**	**1**
Read / Discussions	-	-	-	2	2	2	1	6	**13**	**10.16**	**3**
Demonstration	-	-	-	4	5	1	3	7	**20**	**15.63**	**2**
Drawing / Inter.	-	-	-	-	7	1	-	3	**11**	**8.59**	**4**
Total									**128**	**100**	

On the same table, it can be gleamed the different Intended Learning Activities that be being utilized in the laboratory. Hands on Exercises (65.63%) and demonstration (15.63%) registered the highest percentages. This means that students in the laboratory performs tasks that are being tackled during the lecture. This means of activity reinforces the knowledge through actualization in the form of a task, as this was usually done in technical courses. Kibga et. al (2021) affirms that learners can better express their curiosity when they collaboratively learn using materials that they are familiar with. This further means that participation in actual activities makes learning more effective.

Table 3
Summary on the Distribution of Assessment Tasks (AT) along Lecture and Laboratory

Activities / Courses	G.E	Pr.Ed	TVTED	A.T	E.T	ELT	FSM	GFD	f	%	Rank
Exam – Oral /Written	30	5	13	15	31	28	29	34	**185**	**57.45**	**1**
Quiz	12	6	-	4	-	6	10	1	**39**	**12.11**	**3**
Recitation	11	3	4	1	-	22	3	-	**44**	**13.66**	**2**
Practical Exams	4	1	1	5	4	1	2	4	**22**	**6.83**	**4**
Performance	3	1	1	5	-	3	2	4	**19**	**5.90**	**5**
Research Paper	3	4	-	-	-	-	-	1	**8**	**2.48**	**6**
Essay	1	4	-	-	-	-	-	-	**5**	**1.55**	**7**
Total	64	24	19	30	35	60	46	44	**322**	**100**	
Practical Tasks				6	18	21	25	23	**93**	**59.24**	**1**
Practical Exams				6	8	17	1	21	**53**	**33.76**	**2**
Oral / Written Test				4	-	1	1	1	**7**	**4.46**	**3**
Direct Observations				-	3	-	-	1	**4**	**2.55**	**4**
Total				16	29	39	27	46	**157**	**100**	

The summary of distribution of Assessment Tasks (AT) along lecture and laboratory can be gleamed in table 3. The table denotes that there were seven (7) types of assessments / activities that were utilized by course facilitators and had garnered a total repetition of 322 times. This means that there were the most used activities in the classroom. Notably, it can be noted that the exam – oral /written (57.45%), recitation (13.66%) and quiz (12.11) have garnered the three top spots among the activities. This means that the paper – pencil test still dominates the means of assessment of student learning. This further indicates that only the cognitive aspect is being measured. Hence, this type of examination only routes to memorization which is not good study habits. This also corroborates the findings along the creation of the Intended Learning Objectives (ILO) that most of it were crafted along Low Order Thinking Skills (LOTS). Activities like performance, research papers and essay

which pertains to Higher Order Thinking Skills (HOTS) were seen to be utilized the least as seen in the ranking. This means that these activities were not utilized inadvertently when in fact this really measures student learning because this focus on the application of what the student were able to understand and applying it practically. Hence, varieties of student activities and not just traditional ones could also be introduced to students. Sakir and Kim (2020) emphasizes that PBL can be used to increase content knowledge while developing communication, collaboration, critical thinking, problem solving, and self-directed learning skill at the same time. The data show that PBL implementation improves students' learning activities and outcomes. Hence, this could also be used.

Furthermore, the table also shows the activities that are undertaken in the laboratory. The table revels that there were four (4) types of activities and was repeated for 157 times. This means that such activities were only activities that are being undertaken in the classroom. Hence, its fewness is to little considering that there were lots of activation that could be utilized. Interestingly, Practical Tasks (59.42%) and Practical Exams (33.76%) were the activities that were most utilized. It terms of its appropriateness, such can be seen to be apt in the courses. The practical applications of theories learned and from direct observations really will measure that is supposed to be measured. Hence, its fewness really limits the student learning. Adaption of numerous laboratory activities is can be undertaken. Kandamby (2019) suggested that: In order to make the practical effective, it is suggested to add an additional activity as a formative assessment based on theory and calculation which has to be conducted in the classroom once the practical is over, with students' active participation and facilitation of the instructor. If it is necessary to memorize any information well, engage in deep level processing which would involve asking as many questions related to the information as possible, considering its meaning and examining its relationships to the facts you already know.

Table 4
The summary distribution of types of Summative Exam along the BYVTED courses

Domain / Type	GE	PrE	TVT	AT	ET	ETC	FSM	GFD	Σ TL	%	Rank
Enumeration	4	6	1	2	3	2	5	3	26	6.63	6
Essay	8	7	3	-	9	4	9	5	45	11.48	3
Fill in Blanks	8	-	1	-	4	1	1	-	15	3.83	8
Identification	10	32	8	2	19	-	11	4	86	21.94	2
Multiple Choice	46	-	17	4	14	22	4	-	107	27.30	1
Matching Type	6	-	3	4	4	4	1	-	22	5.61	7
Practicum	4	2	0	2	2	9	12	6	37	9.44	5
True/False	5	2	-	-	-	-	3	-	10	2.55	10
Drawing	-	-	-	-	10	4	-	-	14	3.57	9
Others	2	10	2	-	3	12	9	4	42	10.71	4
Grand Total									407	100	

Legend:

GE – General Education	PrE – Professional Education	TVT – Technical Vocational Teacher Education
AT – Automotive Technology	ET – Electrical Technology	ETC – Electronics Technology
FSM – Food and Service Management	GFD – Garments, Fashion and Design	TL - Total

Table 4 shows the summary distribution of types of summative Exam along the Bachelor of Technical – Vocational Teacher Education (BTVTED) courses with the inclusion of the following: General Education, Professional Eduation, Technical Vocation Teacher Education, Automotive Technology, Electrical Technology, Electronics Technology, Foods and Service Management The summary distribution of types of Summative Exam along the BYVTED coursesand Garments, Fashion and Design. It can be seen from the table that there four hundred and seven (407) items which emanated from among the ten (10) types of summative examination administered by course facilitators in their respective subjects handled.

Specifically, the highest frequencies were registered along: multiple choice (107, 27.30%), identification (86, 21.94); essay (45, 11.48%) and others (42, 10.71%). It can gleaned from the result that most of the items were lifted from the multiple choice type of examination which falls under the remembering domain and so with the identification type. These type of examination only allows students to recall facts and ideas or concepts.

However, it is interesting to note that the other types of the examination includes the creation of a Venn diagram, problem solving, translation, sketching, completing tables, analysis and practicum. Notably, these types had fallen under creating, evaluating and analyzing which were categorized as HOTS domains. Also, these other types were innovative because it is a diversion from the traditional paper and pencil test type of examinations, which is a good thing.

On the other hand, the lowest items were registered along: fill in the blanks (15, 3.83%); drawing (14, 3.57) and True or False (10, 2.55%). The drawing type can be categorized to be either application nor creating depending on how it was asked as a test item. As seen from the documents submitted, the test item for the drawing question is the creation of an "electrical wiring diagram" and a "block diagram" for electrical and electronics, respectively. It is hoped that there should be more like this is the test examinations, as this measures the abilities of students in the application of theories and concepts, learned. It is but there were only a few items which were crafted and given as test items. Hence, the presence of the items under the LOTS category and little on the HOTS category is a manifestation that course facilitators are coming up with students who are merely memorizers instead of doers. This is even evident on the number of items that were manifested on the applying domain in which this supposed to be seen in the courses with laboratory subjects, however, too few. Skills development is the ultimate aim of a Technical – Vocational program; and should course facilitators aims of achieving this goal, then it is imperative that learning activities (laboratory activities) and formative and summative examinations should include the application of theories into practice to bridge the gap of the two; also, innovation of how remembering questions items should be rephrased to fall under other categories, as well. Furthermore, the program aims in producing teachers who are supposed to be skills in terms of Technical – Vocational competencies, then it is imperative that course facilitators should focus on this aim with the development of their pedagogical skills also.

4.   Conclusions and Recommendations

From the results and discussions of the study, the following conclusions and recommendations are presented: Majority of the verbs used in stating the Intended Learning Objectives (ILO) belongs the Lower Order Thinking Skills (LOTS) category; the limited number of learning activities cited by Instructors as evident from the syllabus; and General Education, Professional Education and Technical Vocational Teacher Education subjects offers varieties of assessment tasks while the five (5) areas of specialization offers and utilizes only a handful number of assessment tasks. The use of Lower Order Thinking Skills (LOTS) verbs in the learning objectives on along the courses: General Education, Professional Education, Technical Vocational Teacher Education and areas of specializations; will not stimulate learner's critical thinking and will only have to remain recalling and memorizing facts; also neglecting the development of skills needed in the program.

Course Facilitators may change the verbs they used in writing their objectives from LOTS to HOTS to manifest not only on recalling and memorizing but to develop critical thinking skills and competencies appropriate to the course and to the program, as well.

Majority of the non – specialization courses conducts summative exams that belongs to middle and high order thinking skills while majority of the specialization subjects conducts examination that only measures the cognitive domain and not the psychomotor domain; and most belong to the lower order thinking skill; and traditional paper and pencil types of examinations / test items were furnished test types. The absence of skills oriented and driven assessments in the areas of specialization forfeits the purpose of the program considering that programs offered in the campus are all technical courses that should develop skills; while the traditional paper and pencil types of activities and examinations does not develop other skills, as well. Course Facilitators especially in the areas of specialization courses may focus on practical / performance assessment that will further enhance the skills of students that is needed in the course or in the program; and may upgrade their formative and summative assessment by innovating contents that will make learning not a tedious tasks but an enjoyable and fun way, as well.

Almost of all of the courses analyzed were not aligned in the four (4) variables used, presented in the two documents which were the Syllabus and the TOS and TQs, respectively. The non-alignment of the variables used in the courses in the documents analyzed leads to the none achievement of the intended learning outcomes; and in the larger scale, the course outcomes; which leads to the forfeiture of achieving a goal of the program; Considering that all the variables in alignment has already been identified, a careful selection and utilization of objectives, learning activities, assessments tasks and summative assessments should be looked into by basing it on the backwards design model created as one of the result of the study.

An activity called "Project Well Re-Structured Instruction Through Enhancement Sessions (WRITE)" was conceptualized and develop. The "Project Well Re-Structured Instruction Through Enhancement Sessions (WRITE)" may enhance the competencies of teachers especially in writing verbs and creating formative and summative assessments that belongs to the Higher Order Thinking Skills (HOTS). Adoption and trial implementation of the Project WRITE may be done to enhance the knowledge of Course Facilitators in writing documents which were submitted in a semester basis.

5. Bibliography

Adekoya, Y. M. & Olatoye R. A. (2011). Effect of Demonstration, Peer-Tutoring, and Lecture Teaching Strategies on Senior Secondary School Students' Achievement in an Aspect of Agricultural Science. *The Pacific Journal of Science and Technology*, 12, pp. 320-332.

Amrein-Beardsley A, Osborn Popp SE. *Peer observations among faculty in a college of education: Investigating the summative and formative uses of the reformed teaching observation protocol (RTOP).* Educ Assess Eval Acc 24: 5–24, 2012. [Google Scholar]

Anderson, L.W. & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching and assessing: revision of Bloom's taxonomy of educational objectives.* New York: Addison Welsey Longman.

Biggs, J. (2014). *Constructive alignment in university teaching.* HERDSA Review of Higher Education, 1, 5-22.

Biggs, J. B., & Collis, K. F. (1982). *Evaluating the quality of learning: The SOLO taxonomy.* Academic Press.

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, E. J., & Krathwohl, D. R. (Eds.). (1956). *Taxonomy of educational objectives: The classification of educational goals.* New York, NY: Longmans, Green and Co.

Chase, C.I. (1999). *Contemporary assessment for educator*s. New York:

CHED Memorandum Order (CMO)79. (2017). Polices, Standards and Guidelines for the Bachelor of Technical – Vocational Teacher Education (BTVTED). Commission on Higher Education, Philippines.

Dick, W., Carey, L., & Carey, J.O., (2001). The Systematic Design of Instruction. 5th Edition. New York: Longman.

Elliott, V. (2018). Thinking about the Coding Process in Qualitative Analysis. *The Qualitative Report. Vol. 23. 11*. University of Oxford. USA

Fremi, J. (2017, November 10). *Writing learning outcomes and course objectives.* Retrieved June 14, 2023, from https://blogs.uis.edu/colrs/2017/07/13/writing-learning-outcomes-and-course-objectives/

Gronlund, N. E., & Brookhart, S. M. (2009). *Writing Instructional Objectives* (8th Edition). Upper Saddle River: Pearson Education Inc.

Hanna, G. S., & Dettmer, P. A. (2004). *Assessment for effective teaching: Using context-adaptive planning.* Boston, MA: Pearson A&B.

Iurea, C., Neacsu, I., Safta, C. G., & Suditu, M. (2011). The Study of the Relation between the Teaching Methods and the Learning Styles. The Impact upon Students' Academic Conduct. *Procedia-Social and Behavioral Sciences,* 11, 256-260.

Just Science Now! (n.d.). *Assessment-inquiry connection.* http:// www.justsciencenow.com/assessment/index.htm

Kalra, J. 2021. *Aligning Assessment with Learning Outcomes.* https://pressbooks.bccampus.ca/encourageacademicintegrity/chapter/aligning-assessment-with-learning -outcomes/

Keegan, D. (2013). *Theoretical Principles of Distance Education*. London: Routledge.

Kibga, E.S., Sentongo, J. &Gakuba, E. (2021). Effectiveness of Hands-On Activities to Develop Chemistry Learners' Curiosity in Community Secondary Schools in Tanzania. *Journal of Turkish Science Education*, 18(4), 605-621. DOI:10.36681/tused.2021.93. http://www.fused.org

Kofo. A. A., (2012). Laboratories and Sustainable Teaching and Learning About Senior SecondarySchool (SSS) Geography in Nigeria. *Journal of Educational and Social Research* Vol. 2 (4).

Krathwohl, D. R. (2002). *A revision of Bloom's taxonomy, an overview*. Theory into Practice (41)4, 212-219.

Kurt, S. 2020. *How Can We Align Learning Objectives, Instructional Strategies, and Assessments*? https://educationaltechnology.net/how-can-we-align-learning-objectives-instructional-strategies-and-assessments

Laboratory Experiences and Student Learning." National Research Council. 2006. *America's Lab Report: Investigations in High School Science. Washington, DC:* The National Academies Press.

Learning Objectives and Alignment. https://www.tacoma.uw.edu/digital-learning/learning-objectives-and-alignment.

Loughlin, C., Lygo-Baker, S., & Lindberg-Sand, Å. (2021). Reclaiming constructive alignment. *European Journal of Higher Education*, *11*(2), 119-136.

Lunenburg Fred C. (2011). Curriculum Development: Inductive Models. Sam Houston State University. Schooling Volume 2, Number 1.

Morningside College, *Assessment Handbook Advantages and Disadvantages of Various Assessment Methods* http://www.morningside.edu/academics/research/assessment/documents/advantagesdisadvantages.pdf

National Research Council, American Association for the Advancement of Science, National Science Teachers Association. *Next Generation Science Standards.* Washington, DC: National Academy, 2013.

Regeluth, C. M. (2013). *Instructional-design Theories and Models: A New Paradigm of Instructional Theory*. London: Routledge.

Ruge, G. Tokede, O. & Tivendale, L. (2019). Implementing constructive alignment in higher education – cross-institutional perspectives from Australia. *Higher Education Research & Development*, 38(4), 833-848. https://doi.org/10.1080/07294360.2019.1586842

Suthiwartnarueput, T. and P. Wasanasomsithi (2012). Effects of Using Facebook as a Medium for Discussions of English Grammar and Writing of Low-Intermediate EFL Students. *Electronic Journal of Foreign Language Teaching* 9(2), 194-214.

Tyler, R.W. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

Valenzuela, J. 2022. *A Simple Tool for Aligning Instruction and Assessment.* https://blog. citl.mun.ca

Zen, A. (2021). The Impact of Differentiated Learning Activities on Student Engagement and Motivation in the English Language Arts Classroom. *RED: A Repository of Digital Collections.* Thesis. Minnesota State University Moorhead. USA. Accessed through: https://red.mnstate.edu/cgi/viewcontent.cgi.article=1645 & context=thesis

Perceived effectiveness of the sports coaching practices of higher education teaching personnel: Basis for a training program

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Abstract

This study aimed to assess the perceived effectiveness of sports coaching practices among higher education teaching personnel and identify challenges, problems, and training needs. Conducted at Ilocos Sur Polytechnic State College in September 2023, this quantitative research involved 33 personnel coaches and 138 student-athletes as respondents. The study sought to answer key questions, including the profiles of teacher and athlete respondents, the perceived effectiveness of coaching practices, and the relationships between respondents' profiles and perceived coaching effectiveness. Using a descriptive-correlational research design, statistical tools such as frequency, percentage, mean, and t-tests were employed to analyze data. Results revealed the need for continuous development in sports coaching practices among teaching personnel. Recommendations included encouraging coaches to attend specialized training to enhance their coaching techniques and strategies, developing innovative coaching training programs to improve coaching competencies, and organizing seminars and workshops to expand knowledge and skills in sports coaching. The findings provide a basis for creating structured training programs to address the identified gaps and further improve the coaching effectiveness of higher education personnel. This study underscores the importance of equipping coaches with modern and innovative approaches to foster athlete development and performance.

Keywords: personnel coaches, student athletes, effective coaching, training program

Perceived effectiveness of the sports coaching practices of higher education teaching personnel: Basis for a training program

1. Introduction

Sports involve physical exertion, skill, competition, and social participation governed by rules (Eime et al., 2020). It plays a crucial role in personal development, fostering fitness, teamwork, and discipline. In the Philippines, State Universities and Colleges (SUCs) actively promote sports excellence, producing competitive athletes. To achieve success, effective coaching is essential, providing structured guidance, mentorship, and skill development. According to the International Olympics (2023), coaches must have a deep understanding of their sport, from fundamental skills to advanced strategies. They must also plan training sessions, ensure progressive development, and create an environment conducive to athlete success.

Given the significance of sports in shaping individuals and contributing to national pride, understanding the impact of coaching in SUCs is essential. While these institutions play a key role in sports education and development, research on the effectiveness of coaching within this context remains limited. Coaches must balance multiple responsibilities, including mentoring athletes, scouting talent, and ensuring athletic eligibility. The Philippine government supports sports development through legal mandates such as RA 6847 and Executive Orders 64 and 651, highlighting the role of sports in fostering a disciplined and healthy citizenry. Additionally, the U.N. Millennium Development Plan recognizes sports as a tool for development and peace.

Despite the importance of coaching, many SUCs face challenges such as a lack of qualified coaches, insufficient training, and overwhelming responsibilities placed on a single coach per sport. Effective coaching requires strong communication, management skills, and emotional stability to handle high-pressure situations. Coaches who lack proper training or experience may struggle to implement effective strategies, leading to confusion and underperformance among athletes. Institutions must prioritize professional development and provide adequate support to enhance coaching effectiveness.

This study will examine the challenges faced by both student-athletes and teacher-coaches in SUCs, particularly in Ilocos Sur Polytechnic State College-Main Campus, where a limited number of faculty members handle coaching duties. Student-athletes encounter issues such as unclear communication, perceived favoritism, and lack of individualized training, while teacher-coaches struggle with balancing teaching and coaching responsibilities. Addressing these issues requires institutional support, proper training, and clear guidelines to ensure that both athletes and coaches can perform at their best, ultimately improving sports development in SUCs.

2. Review related literature

Sports coaching plays a vital role in the development of student-athletes, particularly in State Universities and Colleges (SUCs), where competitive sports programs are integral to holistic education. According to Eime et al. (2020), sports serve as a critical component in fostering physical, social, and psychological growth, with coaching acting as a fundamental element in enhancing athlete performance. Coaching in SUCs is unique due to its dual focus on both academic and athletic excellence, requiring educators to balance teaching responsibilities with their roles as sports mentors.

The Role of Coaching in Athletic Development - Coaching is recognized as a structured and systematic process that enables athletes to reach their full potential. The International Olympic Committee (2023) emphasizes that effective coaching requires comprehensive knowledge of the sport, from fundamental techniques to advanced strategies. Coaches must design training programs that are progressive and adaptive to

the needs of athletes. Research by Côté and Gilbert (2009) highlights that coaching effectiveness is determined by three key dimensions: professional knowledge (technical and tactical skills), interpersonal knowledge (communication and motivation), and intrapersonal knowledge (self-awareness and reflection). In SUCs, these factors are crucial as student-athletes rely heavily on their coaches for guidance both on and off the field.

Challenges in Sports Coaching in SUCs - Despite the significance of coaching in SUCs, several challenges hinder its effectiveness. Studies indicate that limited resources, lack of formal training, and time constraints due to academic responsibilities impact the quality of coaching (Martindale, Collins, & Daubney, 2018). In the Philippines, SUC coaches often serve dual roles as faculty members, leading to divided attention between academics and sports training. Moreover, research by Pardo and Mendoza (2018) underscores that many SUCs face constraints in funding for sports development, affecting the availability of coaching certifications, modern facilities, and competitive exposure for athletes.

Policies and Support for SUC Sports Coaching - Several policies support the enhancement of sports coaching in SUCs. The Philippine Sports Commission (PSC) and the Commission on Higher Education (CHED) work together to develop sports programs aligned with national and international standards. Republic Act 6847 and Executive Order No. 64 emphasize the role of higher education institutions in fostering sports excellence and ensuring that student-athletes receive quality coaching. Additionally, the National Service Training Program (NSTP) Act of 2001 recognizes sports as a key component in national development, reinforcing the need for well-trained coaches in higher education institutions (Pardo & Mendoza, 2018).

Research problem - This study determined the perceived effectiveness of sports coaching of Higher Education teaching personnel as basis for a Training Program. Specifically, the study sought answers to the following research questions:

➢ What is the profile of the teacher respondents in terms of related trainings attended and training hours, and the athlete respondents in terms of sex, course, years as an athlete, and competition level (Institutional, Regional SCUAA, National SCUAA)?

➢ What is the level of effectiveness of sports coaching practices as perceived by the respondents?

➢ Is there a significant relationship between the profile of the teacher respondents and the level of effectiveness of sports coaching practice as perceived by the respondents?

➢ Is there a significant relationship between the profile of the athlete respondents and the level of effectiveness of sports coaching as perceived by the respondents?

➢ What is the degree of seriousness of the problems encountered regarding sports coaching by the teaching personnel?

➢ What valid training program on sports coaching can be developed?

Hypotheses - The following are the hypotheses of the study:

Ho1: There is no significant relationship between the profile of the teacher respondents and the level of effectiveness of coaching as perceived by the respondents?

Ho2: There is no significant relationship between the profile of the athlete respondents and the level of effectiveness of coaching as perceived by the respondents?

3. Methodology

This chapter presents a discussion of the research design, population and locale of the study, research instruments, treatment of data, data categorization and ethical consideration used in the study.

Research Design - This study used a descriptive and correlational research design to determine the effectiveness of sports coaching of higher education teaching personnel of the respondents of this study. According to Pandey and Pandey (2015), descriptive-correlational design describes the variables and the relationships that occur naturally between and among the respondents. Descriptive studies aim to accurately and systematically describe a population, situation, or phenomenon. (McCombes (2019)). This study is descriptive because the researchers characterized the profile of the respondents based on the frequency and percentage of their responses in terms of the number of related trainings attended and the number of hours in training, sex, course, number of years as an athlete and the level of competition of the athletes. This study used the correlational design to determine the significant relationship between the profile of the respondents and their level of effectiveness of coaching. Curtis et.al. (2016) claimed that to establish connections between the variables, a correlational research design is used. Hence, the design appropriate for the study.

Population and Locale of the Study - The researchers used total enumeration by involving all the personnel, coaches, and student-athletes of Ilocos Sur Polytechnic State College, Main Campus, in Candon City, Ilocos Sur, for the school year 2022-2023. The list of respondents was obtained from the sports coordinator through a request letter. Inclusion criteria required respondents to be officially affiliated with the institution's sports programs during the specified academic year. Exclusion criteria included individuals who were no longer active in the sports program, those who transferred to another institution, or those who declined to participate.

Research Instrument - The researchers constructed a questionnaire to collect data for this study. The questionnaire consisted of three parts: Part 1 gathered data on personnel respondents, including the number of related training sessions attended and total training hours, while student-athlete respondents provided information on sex, course, years of athletic experience, and competition level (institutional, regional, or national). Part 2 assessed the effectiveness of sports coaching practices among teaching personnel, and Part 3 included indicators evaluated by the coaches.

The questionnaire was initially reviewed by a statistician and validated by three experts: an Assistant Professor II from Don Mariano Marcos Memorial State University, the Head Teacher of the MAPEH Department of Candon National High School, and the Program Chair for BPED at Ilocos Sur Polytechnic State College, Narvacan Campus. To ensure content validity, the experts assessed the questionnaire's relevance, clarity, and alignment with the study objectives. The reliability of the instrument was tested through a pilot study, and its internal consistency was measured using Cronbach's Alpha, where a reliability coefficient of 0.70 or higher indicated an acceptable level of consistency.

Data collection was facilitated through coordination with the sports coordinator, who assisted in distributing and retrieving the questionnaires. The gathered data were then tabulated and analyzed using descriptive statistics, such as frequency counts, percentages, mean, and standard deviation, to summarize responses. Furthermore, inferential statistical tests, such as t-tests or ANOVA, were used to determine significant differences or relationships among variables. The results were then interpreted in relation to existing literature and the study's objectives, providing meaningful insights into the effectiveness of sports coaching practices

Treatment of Data - The data gathered were statistically treat and analyze to come out with a reliable result. The following tools were used in the treatment of data together with the corresponding formula.

➢ Frequency Count(f) and Percentage (%). This was used to determine the profile of the personnel respondents in terms of the number of related trainings attended and the number of hours in training, and the profile of the student athletes' respondents in terms of sex, course, number of years as an athlete and the level of competition as to institutional, regional and national.

➢ Mean (x). This was used to determine the significant difference between the profile of the respondents and the level of effectiveness of coaching of higher education teaching personnel.

> ➤ t-test for correlation (t-test). This was used to determine the significant relationship between the profile and the level of effectiveness of coaching.

Data Categorization - The following items are the indicators of sports coaching. The performance will be rated based on the perception on the level of effectiveness of the sports coaching practices of Higher Education Teaching Personnel using the scale below.

4	4.01 – 5.00	Very Satisfactory
3	3.01 – 4.00	Satisfactory
2	2.01 – 3.00	Moderately Satisfactory
1	1.00 – 1.00	Fairly Satisfactory

Ethical Consideration - To observe ethics in conducting this research, the researchers asked permission from the school administration to allow respondents to participate in the study. The researchers explained the purpose of this research to the respondents and its scope and delimitation. Their consent was also taken anent to the collection of their personal data. The respondents were assured that their identity would not be used for this research only. Proper document sourcing or referencing of materials was also done to ensure that intellectual property, and copyright laws are not violated. Also, proper paraphrasing of ideas was done to avoid plagiarism. The researchers ensured that all the aforementioned ethical considerations were followed in the conduct of this research.

4. Results & discussion

Table 1 presents the Profile of the Teacher Respondents in terms of Number of Related Training Attended and number of hours training

Table 1
Profile of the Teacher respondents in terms of Number of Related Training Attended and number of hours training

Profile		Frequency	Percentage
Number of Related Training Attended	None	23	69.7
	1	6	18.2
	2	4	12.1
Total		33	100
number of hours training	None	23	69.7
	8 hours	6	18.2
	16 hours	4	12.1
Total		33	100

On the profile of the respondents in terms of the number of related trainings attended reveals the following distribution: the table reveals approximately 69.7% of the respondents (23 individuals) have not attended any related training. Around 18.2% of the respondents (6 individuals) have attended 1 related training session. And approximately 12.1% of the respondents (4 individuals) have attended 2 related training sessions. The majority of the respondents (69.7%) have not attended any related training, suggesting a potential need for increased training opportunities or encouragement to engage in professional development activities. For the 18.2% who attended one related training session, there is an implication that they may have acquired some valuable skills or knowledge, which could be beneficial for their work and professional growth. The 12.1% of respondents who attended two related training sessions demonstrate a commitment to continuous learning and skills enhancement. This group may be more prepared to adapt to changing industry trends and contribute to their organization effectively.

The need for increased training opportunities highlights the importance of providing employees with access to training and development programs to enhance job performance and motivation (Bassi & McMurrer, 2007). Numerous studies have shown that employees who receive training tend to be more engaged, satisfied, and productive in their roles (Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012). Research indicates that

organizations with a culture of continuous learning tend to outperform their peers, as employees adapt more readily to change and contribute to innovation (Marsick & Watkins, 1990). It suggests that customized training programs that consider individual employee needs and levels of expertise tend to be more effective in achieving learning objectives (Noe, 2010). The profile of respondents regarding their training attendance provides insights into the training needs and potential benefits for the workforce. The implications drawn from the results are supported by existing research in the field of human resource development and training, emphasizing the importance of tailored training programs and continuous learning opportunities to enhance employee skills and organizational performance.

Table 2 presents the Profile of the Athletes respondents in terms of Sex, Course, Number of years as an Athlete, and Level of Competition

Table 2
Profile of the Athletes respondents in terms of Sex, Course, Number of years as an Athlete, and Level of Competition

Profile		Frequency	Percentage
Sex	Male	79	56.8
	Female	60	43.2
Total		139	100
Course	BSE	11	7.9
	BEED	9	6.5
	BCAED	17	12.2
	BPED	7	5.0
	BAPOS	27	19.4
	ABEL	8	5.8
	COMSCIE	18	12.9
	MID	5	3.6
	BSBA	19	13.7
	BSOA	2	1.4
	CRIM	16	11.5
	Total	139	100.0
Number of years as Athletes	1.00	43	30.9
	2.00	41	29.5
	3.00	23	16.5
	4.00	30	21.6
	5.00	2	1.4
Total		139	100.0
Level of Competition	Institutional	31	22.3
	Regional SCUAA	108	77.7
	National SCUAA	0	0.0
Total		139	100.0

The above table shows the profile of the respondents based on sex, course, number of years as athletes, and level of competition. The analysis of the respondent's sex indicates a male-dominated sample, the data shows that there are 139 respondents in total. 56.8% of the respondents are males (79 out of 139), while 43.2% are females (60 out of 139). The distribution of courses among respondents is quite diverse, the respondents are enrolled in various courses, and the data provides frequencies and percentages for each course. The most common course among the respondents is "BAPOS" (19.4%), followed by "BSBA" (13.7%) and "BCAED" (12.2%). "BSOA" is the least common course (1.4%). Respondents have varying levels of experience as athletes with the largest group of respondents (30.9%) has 1.00 years of experience as athletes, followed closely by those with 2.00 years (29.5%). A smaller portion of respondents has 3.00 years (16.5%) and 4.00 years (21.6%) of experience. Only a very small percentage (1.4%) has 5.00 years of experience as athletes.

The level of competition is primarily at the "Regional SCUAA" level indicating that the majority of respondents (77.7%) have participated in "Regional SCUAA" level competitions, with 22.3% competing at the "Institutional" level. None of the respondents reported participating in "National SCUAA" competitions. The male-dominated sample may indicate a potential gender bias or underrepresentation of females in the athletic

community at the surveyed institution. The diversity in courses indicates that athletes come from various academic backgrounds, highlighting the inclusive nature of sports. The concentration of athletes with 1.00 and 2.00 years of experience suggests a higher turnover or entry of new athletes, possibly due to the nature of sports participation at the institution.

Sports programs may consider strategies to retain athletes beyond the initial years, such as mentorship programs, skill development initiatives, or enhanced support for continuing athletes. The prevalence of participation at the "Regional SCUAA" level implies a regional focus in the sports culture of the institution. The "Critical Feminist Perspective" argues that societal norms and expectations often lead to the underrepresentation of women in various fields, including sports. Studies like those by Pfister (2010) emphasize the need for promoting gender equity in sports to address this issue. The "Academic Identity Theory" suggests that students often align their extracurricular activities, including sports, with their academic identity. Research by Eccles (2009) highlights the influence of academic environments on shaping students' interests and choices. The "Athlete Development Model" proposes that athletes progress through different stages of development, and the distribution of experience levels observed in the study aligns with this model. Côté and Erickson's work (2009) in sports psychology supports the idea that a majority of athletes may have fewer years of experience. The "Hierarchy of Competition" theory suggests that athletes generally start at lower levels before progressing to higher levels. Wylleman and Lavallee's (2004) work on career transitions in sport provides insights into how athletes move through different competition levels. By integrating relevant theories, literature, or situations, the results and implications drawn from the data can be strengthened, providing a more robust understanding of the observed patterns in the profile of athletes. This approach ensures that the findings are not isolated but grounded in established knowledge and experiences within the field of sports studies and related disciplines.

4.1 Perceived Level of Effectiveness of the Sports Coaching Practices Higher Education Teaching Personnel

Table 3 presents the Level of effectiveness of sports coaching as perceived by the coach.

Table 3
Level of effectiveness of sports coaching as perceived by the coach respondents

Items	Mean	Descriptive level
Help athletes maintain confidence in themselves	3.4848	Satisfactory
Mentally prepare his/her athletes for game strategies	3.4545	Satisfactory
Build the self-esteem of his/her athletes	3.5455	Satisfactory
Motivate his/her athletes	3.2727	Satisfactory
Build the self-confidence of his/her athletes	3.3636	Satisfactory
Build team confidence	3.4848	Satisfactory
Recognize opposing team's strengths and weaknesses during competition	3.2727	Satisfactory
Understand competitive strategies	3.2424	Satisfactory
Adapt to different games situations	3.4848	Satisfactory
Make critical decisions during competition	3.5152	Satisfactory
Maximize his/her team's strengths during competition	3.4848	Satisfactory
Adjust his/her game strategy to fit his/her team's talent	3.4848	Satisfactory
Demonstrate the skills of his/her sport	3.6970	Satisfactory
Coach individual athletes on technique	3.5455	Satisfactory
Develop athletes' abilities recognize talent in athletes	3.3939	Satisfactory
Detect skill errors	3.5152	Satisfactory
Teach the skills of his/her sport	3.5758	Satisfactory
Instill in attitude of good moral character	3.4242	Satisfactory
Instill an attitude of fair play among his/her athletes	3.5152	Satisfactory
Instill a positive attitude for others	3.5758	Satisfactory
As a whole	3.4667	SATISFACTORY

Legend:
4	4.01 – 5.00	Very Satisfactory
3	3.01 – 4.00	Satisfactory
2	2.01 – 3.00	Moderately Satisfactory
1	.01 – 1.00	Fairly Satisfactory

On the table above, it is gleam that the level of effectiveness in coaching has the same descriptive level,

which is satisfactory, although based on the mean, the highest mean is 3.69 on the item "demonstrate the skills of his or her sport," while the lowest mean is 3.24 on "understand competitive strategies." This means that the coaches respondents perceived themselves as performing coaches. The coaching attributes generally have satisfactory mean scores, indicating that, according to the respondents, the coaches are performing adequately in various aspects of their roles. Areas with lower mean scores, such as "Motivate his/her athletes" and "Recognize opposing team's strengths and weaknesses during competition," may warrant additional attention and improvement. The high mean score for "Demonstrate the skills of his/her sport" suggests that coaches are perceived as proficient in showcasing the technical aspects of the sport.

The results align with coaching effectiveness models such as the "Transformational Leadership Theory" and the "Multidimensional Model of Sport Leadership," which emphasize the importance of coaches in building athlete confidence, motivation, and strategic understanding (Chelladurai, 2007; Bass & Riggio, 2006). The lower mean score for "Motivate his/her athletes" may resonate with motivation theories like Self-Determination Theory (Deci & Ryan, 2000). Coaches may benefit from incorporating motivational strategies that consider athletes' autonomy, competence, and relatedness. The higher mean scores for attributes related to skill demonstration, coaching on technique, and teaching sport skills align with coaching literature emphasizing the importance of technical proficiency in enhancing athlete performance (Jones, Hanton, & Connaughton, 2002).

Table 4 presents the Level of effectiveness of coaching as perceived by the respondent Student.

Table 4
Level of effectiveness of coaching as perceived by the respondent Student

Items	Mean	Descriptive level
Help athletes maintain confidence in themselves	3.2590	Satisfactory
Mentally prepare his/her athletes for game strategies	2.9496	Moderately Satisfactory
Build the self-esteem of his/her athletes	3.0935	Satisfactory
Motivate his/her athletes	2.9928	Moderately Satisfactory
Build the self-confidence of his/her athletes	3.0863	Satisfactory
Build team confidence	3.0288	Satisfactory
Recognize opposing team's strengths and weaknesses during competition	3.2029	Satisfactory
Understand competitive strategies	3.2734	Satisfactory
Adapt to different games situations	3.2662	Satisfactory
Make critical decisions during competition	3.1367	Satisfactory
Maximize his/her team's strengths during competition	3.0576	Satisfactory
Adjust his/her game strategy to fit his/her team's talent	3.1079	Satisfactory
Demonstrate the skills of his/her sport	3.0000	Satisfactory
Coach individual athletes on technique	3.0432	Satisfactory
Develop athletes' abilities recognize talent in athletes	3.1007	Satisfactory
Detect skill errors	2.9353	Moderately Satisfactory
Teach the skills of his/her sport	3.0935	Satisfactory
Instill in attitude of good moral character	3.0360	Satisfactory
Instill an attitude of fair play among his/her athletes	2.9640	Moderately Satisfactory
Instill a positive attitude for others	3.0504	Satisfactory
As a whole	3.0840	Satisfactory

The table shows that the item "understand competitive strategies" has the highest mean of 3.27 and is described as satisfactory, while "Detect skill errors" has the lowest mean of 2.94 and is described as moderately satisfactory. As a whole, the level of effectiveness of coaching as perceived by the student respondents has a mean of 3.08 and is described as satisfactory. This means that the coaches in terms of effectiveness in their task, they help their athletes physically and emotionally ready. They motivate the athletes and create their self-esteem to handle situations during games. They also find their coaches as possessing adequate level of knowledge and building good characters for them. The study of Lim Khong Chiu, Nor Idayu Mahat, Khor Phoy Hua, and Radzliyana Bt Radzuwan (2013) revealed that the level of coach competencies from both male and female athletes' respondents who evaluated their coaches is average, which is the same with the present study, which found a satisfactory level of effectiveness in coaching as perceived by the athletes.

4.2 Degree of Seriousness of Problems Encountered by Students Athletes and Sports Coaches

Table 5 presents the Problems Encountered by Coaches and Student Athletes in Sports

Table 5

Problems Encountered by Coaches and Student Athletes

Problems Encountered	Student Respondents		Coach Respondents	
	Mean	Descriptive Level	Mean	Descriptive Level
Managing the conflicting roles of being a teacher/instructor and being a coach in a sport	2.9784	Sometimes a Problem	3.2727	Sometimes a Problem
Lack of compensation in handling a coaching job	2.9353	Sometimes a Problem	3.3030	Sometimes a Problem
The experience of strain in coaching student athletes	2.9137	Sometimes a Problem	3.3030	Sometimes a Problem
Additional load of work of managing and training student athletes	2.8489	Sometimes a Problem	3.3030	Sometimes a Problem
Lack of sports budget, equipment, and facilities in the campus	2.7122	Sometimes a Problem	3.3030	Sometimes a Problem
Proper and sufficient schedule for training student-athletes	2.9928	Sometimes a Problem	3.3939	Sometimes a Problem
Absence of training and seminar of being a coach/trainer	2.8058	Sometimes a Problem	3.4545	Sometimes a Problem
Lack of sufficient knowledge and skills in coaching a game team	2.8849	Sometimes a Problem	3.5152	Always a Problem
Dealing and managing the student-athletes' training and personal commitments	2.9209	Sometimes a Problem	3.3333	Sometimes a Problem
Lack of sports program in the institution	2.7698	Sometimes a Problem	3.2424	Sometimes a Problem
As a Whole	2.8763	Sometimes a Problem	3.3424	Sometimes a Problem

Legend:
3.51 – 4.00 – Always a Problem
2.51 – 3.50 – Sometimes a Problem
1.51 – 2.50 – A Problem
1.00 – 1.5-   - Not a Problem

The table presents the degree of problem encountered by both the student and coach respondents. Based on the data gathered, all the items have the same degree of perception towards the problems they encountered, with an overall mean of 2.89. Sometimes a problem, although the lowest mean is 2.71 on the item "Lack of sports budget, equipment, and facilities on campus," while the highest mean is 2.99 in the item "Proper and sufficient schedule for training student-athletes."

This means that the athletes are more concerned with their practices and training schedules to prepare themselves for the competitions. This is aligned with Bompa (1999) and Martens (1987). The coach's role is to assist athletes in improving their athletic skills in a variety of tasks, ranging from the sequential development and mastery of fundamental skills for beginners to the more specialized physical, technical, tactical, and psychological preparation of elite athletes through the training and practices they plan and implement. The data may also be supported by the result of FALCAO, BLOOM and GILBERT (2012) that athletes should be provided with guidance for creating and delivering training programs designed to promote developmental outcomes.

4.3 Relationship between level of sports coaching effectiveness as perceived by the sports coaches and their profile

Table 6 presents the Significant Relationship Between Level of Sports Coaching Effectiveness as Perceived by the Teacher Respondents and their Profile

Table 6

Significant Relationship Between Level of Sports Coaching Effectiveness as Perceived by the Teacher

Respondents and their Profile

Effectiveness of Coaching Profile	Correlation	Decision
Number of related trainings attended	-.375*	Significant
Number of Hours attended	-.375*	Significant

The table shows that number of related trainings attended and number of hours attended by the respondents has a significant relationship with the level of effectiveness of coaching with both r -357. This means that the lower the number of related trainings and the lower the number of hours training attended are the lower the effectiveness of coaching. Coaches have an important part in players' growth both on and off the field. Proper coaching training may guarantee that coaches have the information and abilities they need to effectively manage and motivate their teams, as well as recognize and avoid injuries. Furthermore, coach training can assist coaches better comprehend the newest studies in sports science, allowing them to build more effective training programs and increase their athletes' performance. Overall, coach training is critical for athlete performance and safety. As coach, at all levels of sports competition he must know not more than just coaching but to be effective coach. To be an effective, he should gain a working knowledge of all areas associated with performance enhancement this could be done through attending numbers of related trainings (Johnson, Wojnar, Price, Foley, Moon, Esposito, and Cromartie, 2011).

The findings of this study indicate a significant negative relationship between the number of related trainings attended and the number of hours spent in training, with coaching effectiveness. Specifically, the fewer the training hours and the lower the number of related trainings attended, the lower the perceived effectiveness of coaching. This suggests that continuous professional development is crucial for enhancing coaching effectiveness. To improve coaching effectiveness, sports organizations should prioritize the provision of training opportunities for coaches. This could include workshops, seminars, or certification programs focused on advanced coaching techniques, sports science, injury prevention, and motivational strategies. Coaches should be encouraged to stay updated with the latest developments in their field, including the latest research in sports science, which can help them build more effective training programs and improve their athletes' performance.

Additionally, coaching programs should emphasize the importance of not only understanding sports strategies and techniques but also acquiring knowledge in areas related to athlete well-being, such as injury prevention, nutrition, and mental health support. By equipping coaches with a broad range of knowledge and skills, they will be better able to manage the diverse needs of their athletes and ensure safe and effective training environments. The study also aligns with the work of Johnson et al. (2011), which stresses the importance of coach training in enhancing overall coaching effectiveness. For coaches to be effective, they must gain a working knowledge in all areas related to performance enhancement, and this can be achieved by attending numerous training sessions and continuously upgrading their skills.

Table 7 presents the Significant Relationship Between Level of coaching effectiveness as Perceived by the Student Respondents and their Profile

The table presents that level of effectiveness of coaching is significantly related to the number of years as an Athletes with r= .285 and level of competition where the respondents competed and a r = -.456. This means that the higher the number of years as an Athletes, the higher of the perception on the level of effectiveness of coaching of their coach. While the lower the level of competition that the athletes have attended the lower the level of their perception on effectiveness of coaching of their sports coaches. The result of the study is similar with study of Chiu, et.al. (2013), both male and female athletes respondents rated their coaches with a average performance as coach. This means that the athletes regard their coaches as having appropriate depth of understanding, abilities, and experience in motivating planning for strategy, enforcing effective techniques, and establishing good characters for them.

Table 7

Significant Relationship Between Level of coaching effectiveness as Perceived by the Student Respondents and their Profile

Effectiveness of Coaching Profile	Correlation	Decision
Sex	.040	Not Significant
Course	.118	Not Significant
Number of years as an Athletes	.285**	Significant
Level of Competition	-.456**	Significant

The findings of this study indicate a significant relationship between the number of years athletes have spent in their sport and their perception of coaching effectiveness, as well as a negative correlation with the level of competition they have experienced. Specifically, the longer athletes have been involved in sports, the more positively they perceive the effectiveness of their coaches. Conversely, athletes who compete at lower levels of competition tend to have lower perceptions of their coaches' effectiveness. This has important practical implications for sports organizations and coaching programs. It suggests that experienced athletes are more likely to appreciate and recognize the effectiveness of their coaches due to their deeper understanding of the sport, its strategies, and the role of the coach in athlete development. As a result, it is crucial for coaches to continuously develop their skills, regardless of the competition level, to maintain positive perceptions from athletes at all stages of their athletic careers.

For less experienced athletes or those competing at lower levels, the perception of coaching effectiveness may be lower, which could affect their motivation and overall performance. To address this, coaches should focus on building strong foundational skills, enhancing their ability to communicate, and fostering positive relationships with athletes, especially those in lower-level competitions or with less experience. Creating an environment where athletes feel supported, motivated, and valued is crucial for improving their perceptions of coaching effectiveness. Additionally, the study aligns with the findings of Chiu et al. (2013), where athletes rated their coaches' performance as average. This indicates that athletes value coaches who possess a well-rounded skill set, including knowledge of the sport, motivational abilities, effective planning, and the ability to foster good character in athletes.

Table 8 presents the Significant Relationship Between the problems encountered in coaching as perceived by the coaches and their Profile

Table 8

Significant Relationship Between the problems encountered in coaching as perceived by the coaches and their Profile

Problems Encountered in Coaching Profile	Correlation	Decision
Number of related trainings attended	-.433*	Significant
Number of Hours attended	-.433*	Significant

The table shows that the number of related trainings attended and the number of hours attended are both significantly adversely connected to coaching problems as perceived by coaches, with both r = -.433. In terms of the number of related trainings and hours attended, the lesser the number of trainings and hours of training attended, the more challenges the coaches encountered. A lack of training implies a lack of knowledge and skills to confidently train an athlete. Before tackling the duties or tasks of a coach, both theories and practices are essential. Because they have the ability to influence the performance of their athletes, which is well established if they are well trained (Horn, 2008; Weiss, Smith, & Stuntz, 2008), the training will also help him resolve problems that may arise and choose and provide the proper intervention in case it is needed. Coaches should also be prepared to provide physical training, planning, and coaching to their participants (Mallett & Cote, 2006).. They will be able to build strategies and game plans that will effect the performance of their athletes and teams during competition thanks to the training they have received.

The findings of this study highlight a significant negative relationship between the number of related trainings attended and the number of hours of training completed by coaches and the challenges they perceive in coaching. Specifically, the fewer the trainings and hours attended, the greater the challenges coaches face. This suggests that a lack of training and professional development for coaches directly correlates with an increased perception of coaching difficulties. This has important practical implications for sports programs and institutions. It underscores the need for coaches to receive comprehensive and continuous professional development, including both theoretical and practical training. A lack of training means coaches may lack the necessary knowledge and skills to address the complex needs of their athletes, resulting in difficulties in effectively managing coaching tasks and resolving potential problems that arise during training or competitions. Moreover, as emphasized by Horn (2008) and Weiss, Smith, & Stuntz (2008), well-trained coaches are more capable of resolving issues that arise within their teams and can provide appropriate interventions when necessary. Coaches who have received proper training are better equipped to create effective game plans and strategies that optimize their athletes' performances during competition.

Additionally, according to Mallett and Côté (2006), coaches should be prepared not only for physical training but also for the planning and psychological aspects of coaching. This preparation helps them build strong relationships with athletes, enhance team dynamics, and respond proactively to challenges, ultimately leading to better performance outcomes.

Table 9 presents the Significant Relationship Between the problems encountered in coaching as perceived by the athletes and their Profile

Table 9

Significant Relationship Between the problems encountered in coaching as perceived by the athletes and their Profile

Problems Encountered in Coaching Profile	Correlation	Decision
Sex	-.028	Not Significant
Course	.199*	Significant
Number of years as an Athletes	.264*	Significant
Level of Competition	-.176*	Significant

The table above shows that the perception of the degree of problems encountered by the athletes is significantly related to the course (r =.199), the number of years as an athlete (r =.264), and the level of competition (r =.176). These mean that the course and number of years as athletes significantly contribute to their perception of the degree of problems that their coaches may encounter. There are courses that really need time and effort for their requirements, which sometimes could affect their activities as athletes because they have fewer requirements based on their curriculum, and there are courses that need hands-on training and time focus.

The results of the study do not reflect the support of the study by Kimberlee J. Henrion (2009) that the majority of the student athletes do not have any conflicts with their sport or taking classes that they. Need and that the majority of student athletes do choose the academic majors that they are interested in and are not pressured by outside influences such as deadlines for the NCAA, influences by coaches, or the need to choose an academic major because of their sport and the conflicts that may occur with it. The findings of this study suggest that there is a significant relationship between the athletes' perception of the problems they encounter and their course, number of years as an athlete, and level of competition. Specifically, the course and the number of years as athletes play a crucial role in shaping the athletes' perception of the challenges they face. For instance, athletes in courses that demand substantial time and effort for their requirements, such as those requiring hands-on training, may experience conflicts between academic obligations and athletic commitments. On the other hand, athletes enrolled in courses with fewer academic requirements may find it easier to balance their roles as students and athletes.

These findings suggest that educational institutions and sports programs should consider the academic requirements of the courses when scheduling training and competition, ensuring that student-athletes are not overwhelmed. For example, flexible training schedules, academic support, and personalized coaching could help student-athletes better manage their academic and athletic commitments. Moreover, it may be beneficial for athletic programs to offer guidance to students in selecting courses that align better with their athletic schedules to minimize conflicts and enhance their overall performance both in sports and academics. Contrary to the findings of Henrion (2009), which suggested that most student-athletes do not experience conflicts between academics and sports and choose academic majors they are passionate about, this study indicates that some athletes do face challenges. These differences highlight the importance of considering the unique pressures and experiences of student-athletes when developing support systems in educational institutions. It also suggests that while some athletes may be able to navigate the balance between academics and sports, others may require more targeted interventions to manage these dual roles effectively.

5. Conclusions

Based on the results of the study, the researchers concluded the following:

➢ Majority of the teacher respondents do not have related training that will help them work as coaches in any field of sports. There are more male than female respondents. The Bachelor of Arts in Political Science (BAPos) has the biggest number of respondents. Moreover, many of the respondents are still young when it comes to exposure to college sports competitions.

➢ The level of effectiveness of coaches' respondents perceived themselves as performing coaches while the students' respondents find their coaches effective in their task as coach and possessed adequate level of knowledge and building good characters for them. The result was described satisfactory.

➢ The study indicates a significant negative relationship between the level of sports coaching effectiveness, as perceived by teacher respondents, and both the number of related trainings attended and the number of hours attended. This suggests that fewer related trainings and fewer hours attended are associated with higher perceived coaching effectiveness.

➢ The study reveals that there is a significant relationship between the problems encountered in coaching, as perceived by athletes, and their profile. Specifically, the athlete's course, number of years in athletics, and level of competition are identified as significant factors influencing their perception of coaching-related challenges.

➢ The uniformity in the degree of problems perceived by both student-athletes and coaches implies a shared understanding of the challenges within the sports program. The specific variations in mean scores highlight priority areas for targeted interventions, emphasizing the importance of addressing resource-related concerns, such as sports budget, equipment, and facilities, to foster a more supportive and conducive environment for both athletes and coaches.

5.1 Recommendations

Based on the formulated conclusions, the researchers recommended the following:

➢ Encourage and facilitate professional development opportunities, such as workshops or training sessions, for teachers without related coaching training to enhance their coaching skills.

➢ Coaches in the different programs are encouraged to attend trainings in the field Sports in order to uplift their knowledge and ideas on different coaching techniques and strategies.

➢ The school should provide seminars and training workshop on Coaching to enhanced the coaching

knowledge of coaches.

➢ The school is encouraged to create an innovative Coaching Training Program that will help coaches in the different programs to increase their knowledge and skills in coaching athletes.

6. References

Bompa, U. O. (1999). Periodization: Theory and methodology of training. Retrieved from https://books.google.com.ph/books/about/Periodization.html?id+DPsSngEACAAJ&redir_esc=y

Chui, L. K. (2013). Student-athletes' perceptions of coaches' coaching competency. Malaysian Public Institution of Higher Learning. Retrieved from https://files.eric.ed.gov/fulltext/EJ1158707.pdf

Constantino. (2019). Challenges faced by student athletes and how they can tackle them. Money Smart Athlete. Retrieved from https://moneysmartathlete.com/athlete-development/challenges-faced-by-student-athletes-and-how-they-can-tackle-them/

Côté, M. J. (2006). Beyond winning and losing: Guidelines for evaluating high-performance coaches. The Sports Psychologist, 20(2), 213-229. https://doi.org/10.1123/tsp.20.2.213

Eime, R., Harvey, J., & Charity, M. (2020). Australian information network. BMC Sports Science, Medicine and Rehabilitation. Retrieved from https://www.clearinghouseforsport.gov.au/kb/what-sport#:~:text=%27Sport%27%20means%20all%20forms%20of,in%20competition%20at%20all%20levels

Guide, C. (2023). How to become a sports coach. Indeed. Retrieved from https://www.indeed.com/career-advice/finding-a-job

Henrion, K. J. (2009). Key challenges facing student athletes and connections to their choice of major. ScholarWorks. Retrieved from https://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=670&context=dissertations

International Olympic Committee. (2023). Qualities of a great sports coach. Retrieved from https://olympics.com/athlete365/entourage/qualities-of-a-great-sports-coach/

Johnson, S., Wojnar, P. J., Price, W. J., Foley, T. J., Moonen, J. R., & Enrico, A. (2011). A coach's responsibility: Learning how to prepare athletes for peak performance. Journal of Sports Science and Medicine, 10(3), 345-355. Retrieved from https://journals.sagepub.com/doi/full/10.1177/2158202711422510

University, A. S. (2023). The importance of communication in sports. Arkansas State University. Retrieved from https://degree.astate.edu/online-programs/business/master-of-science-sports-administration/communication-in-sports/#:~:text=Teams%20that%20promote%20positive%20communication,that%20actually%20influence%

Weiss, M. R., Smith, A. L., & Stunt, M. (2008). Moral development in sports and physical activity. Psychology of Sport and Exercise, 9(5), 307-316. https://psycnet.apa.org/doi/10.1016/j.psychsport.2007.10.003

West, L. (2013). Coach-athlete communication: Coaching style, leadership characteristics, and psychological outcomes. Bowling Green State University. Retrieved from https://scholarworks.bgsu.edu/cgi/viewcontent.cgi?article=1031&context=hmsls_mastersprojects

Falc, W. R., & Bloom, G. A. (2012). Coaches' perceptions of a coach training program designed to promote youth development outcomes. ResearchGate. Retrieved from http://www.researchgate.net/publication/254288452_Coaches'_Perceptions_of_a_Coach_Training_Program_Designed_to_Promote_Youth_Development_Outcomes

Research capabilities of secondary school teachers in Candon City: Basis for enhancement program

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Abstract

The purpose of this study is to assess the research capabilities of the Secondary School Teachers of Candon City. Descriptive correlational research method was used. An adapted questionnaire was used for the179 teachers. Data were analyzed through frequency count, percentages, weighted mean and simple correlation. Findings indicated that the respondents are young, females, bachelor's degree holders, working 10 years and below, attended 5 and below seminars/training, with 30 and below average workload and 1-2 preparations. Respondents' level of research capability along with self-efficacy and motivation is moderate. Age is significantly related to teachers' research capabilities along with self-efficacy and motivation. Sixteen indicators are considered weaknesses and 1 is a strength. Hence, the researchers recommend that teachers should pursue graduate school courses and attend research-related seminars/training/conferences to improve their knowledge and skills in research. Further, the administrators may use other strategies to motivate teachers to conduct research and may establish linkage/partnership with other agencies/higher education institutions to provide programs that may help strengthen the research skills of teachers.

Keywords: research capability, enhancement program, motivation, efficacy, secondary school teachers

Research capabilities of secondary school teachers in Candon City: Basis for enhancement program

1. Introduction

One of the mandates and functions of any educational institution is to conduct research which is very vital in coming up with new ideas and better ways of improving the standard of education. Aside from the primary function of the teacher which is to teach, he is also duty-bound to do research. One of the duties and obligations of a Master Teacher in the Department of Education is to conduct action research which aims to continuously modify instruction. Most Master Teachers are already experienced and certified educators. The majority has been teaching for several years, consistently using experience in the classroom to strengthen teaching practice. Master teachers are expected to use research-based teaching methods to design, plan, and deliver effective lessons. This could be helpful in understanding students' needs thus they could use the most current and effective teaching strategies.

The work of every teacher will ensure that every student is succeeding. The role focuses on improving literacy and numeracy through action research and developing high-yield strategies for improvement with a strong evidence base. Teachers of the DepEd are now required to conduct action research that can help them understand what is happening in the classroom and identify changes that improve teaching and learning. Action research can help answer questions about the effectiveness of specific instructional strategies, the performance of specific students, and classroom management techniques. It can help teachers understand what is happening in the classroom and identify changes that improve teaching and learning. This also helps answer questions about the effectiveness of specific students, and classroom management techniques.

Research is motivated by a need to know about, or a curiosity about, how things are, and what things do or may do. This initially requires no trained skills, just a capacity to wonder, as was stated by Einstein, who claimed that his redeeming feature, in terms of research, was not cleverness or giftedness, but that he was 'only very, very curious.' Research embarks on a voyage of discovery launched by curiosity or need. The knowledge and skills of teachers should lead them to ask research questions of increasing sophistication, specificity, depth, and breadth which set them on a journey toward making the unknown known. Conceptualizing and facilitating this journey is a task for all educators, especially master teachers.

Salom (2013), research is potent and essential in transforming society. Faculty members should be research-conscious. This consciousness is important in producing innovations and improving the quality of life. The main purpose of conducting research is to serve men and to attain a higher quality of life (Basilio & Bueno, 2019). The study of Chin (2007) in China accentuated the importance of investing in research wherein students will turn to be part of the quality workforce in the country with the increasing number of innovations. Chin emphasized that investing in research will boost the economy of China. In the Philippines, research initiatives are given attention by the government most especially in the educational sector. The Department of Education (DepEd) embedded in their year-end assessment rating among teachers to conduct Action Research entailing the management guidelines and procedures that can elevate the quality of teaching practice and pedagogies to have meaningful learning experiences (Dep Ed Order no. 16, s.2017).

The Commission of Higher Education (CHED) conducted a survey in order to find out the status of research capability among college instructors in selected areas in Luzon, Philippines. It was revealed that research was given poor priority and limited funding among other activities in Higher Educational Institutions (HEIs). In the study of Wong (2019), the findings revealed that 92.95% of the faculty members in the country joined research and development activities for two decades but only 22.81% were involved in the conduct of research. Further, the results exemplified that the faculty members will just join trainings and seminars for attendance and

certificate purposes but not necessarily for the passion of making research articles. This is the reality that needs to be investigated and should be addressed – the research capability of the faculty members in the HEIs. It is the common notion of every faculty member to have doubts about researching because it is a tedious process by its nature.

The capability of conducting research underscores the meaning of its construct. Research capability is the ability to answer a problem following the scientific processes of planning, gathering data, and interpreting it with the appropriate statistical tool or qualitative analysis (Salom et al., 2013; Ismael et al., 2012). The research capability among the faculty members may develop over time as it is a skill that needs constant practice (Manongsong et al., 2018). This can be further developed when participating actively in numerous research capacity-building activities and seminar writing shops. The faculty members of the Cebu Technological University – Moalboal Campus are interested in honing their skills in conducting research. The interest should also parallel with the capability of doing it. With this, the researchers are determined to know the capability of the faculty members of this institution to make sound decisions on what initiative should be undertaken. Further, this paper intends to make sustainable management plans that can augment the blurry spot of planning to conduct research.

Educational research often seems removed from the realities of the classroom. For many classroom educators, formal experimental research, including the use of a control group, seems to contradict the mandate to improve learning for all students. Even quasi-experimental research with no control group seems difficult to implement, given the variety of learners and diverse learning needs present in every classroom. Action research gives teachers the benefits of research in the classroom. Every time they change a lesson plan or try a new approach with their students, they are engaged in trying to figure out what works. Even though they may not acknowledge it as formal research, they are still investigating, implementing, reflecting, and refining their approach.

Qualitative research acknowledges the complexity of classroom learning. Action research provides qualitative data a teacher can use to adjust curriculum content, delivery, and instructional practices to improve student learning. Action research helps implement informed change. The term "action research" was coined by Kurt Lewin in 1944 to describe a process of investigation and inquiry that occurs as action is taken to solve a problem. Today researchers use the term to describe a practice of reflective inquiry undertaken with the goal of improving understanding and practice. The term "action" refers to the change trying to be implemented and "research" refers to an improved understanding of the learning environment. Action research also helps one to take charge of his personal and professional development. As he reflects on his own actions and observes other master teachers, he will identify the skills and strategies he would like to add to his own professional toolbox. As his research potential solutions are exposed to new ideas, he will identify the skills, management, and instructional training needed to make the changes he wants to see. (Cox,1955).

The Department of Education (2015) began institutionalizing research through DO No. 13, s. 2015, which established a systematic development policy process and promoted an evidence-based policy formulation backed by research. Through DO No. 43, s. 2015 and DO No. 4, s. 2016, financial support to researchers was provided and the guidelines on the use of the Basic Education Research Fund were set, respectively (DepEd, 2015, 2016). In the same year, another policy (DO No. 39, s. 2016) JWEEP 2(5):01-11 3 was issued that laid down the research agenda so that research of teachers would be aligned to priorities (DepEd, 2016). Lastly, an issuance was released (DO No. 16, s. 2017) to give guidance on the management of research affairs at all levels (DepEd, 2017). Thus, DepEd has been trying to push teachers to engage in research. However, public school teachers need to develop and enhance the research capabilities that would enable them to produce research outputs. But they cannot do it by themselves and the agency and its partners shall work together to enable teachers to acquire and develop knowledge, skills, values, positive attitudes, which can add value to every researcher. It is then they can fully embrace the policies. On this premise, a study was carried out to assess the research capability of teachers and determine its correlates and determinants. It would also identify prospects for the professional development of teachers. For these, the results of this assessment can be made base with the development of an

intervention.

Despite of the expectation from teachers to embrace the culture of research, some do not adhere on this objective since they do not have the expertise, capability, and knowledge in research. Alim (2011) teachers were capable of conducting research through various pieces of training, experiences, and skills acquired connected to the research. On the other hand, Abarro and Mariño (2016) revealed that public secondary and elementary school teachers had an average level of research capabilities in writing different parts of a research proposal and publishable research paper article and a low level in using the APA bibliography format. The research capabilities of public secondary school teachers in writing a research proposal were influenced by their position and is not affected by age, sex, civil status, highest educational attainment, and research training or seminars attended.

It is a lamentable observation that most of the secondary teachers in the City of Candon have not embrace the conduct of research as evidenced by the few researches that were conducted for the past years. Even if it is a part of their annual performance especially the Master teachers some still ignore the contribution of research to their performance evaluation. This may due to the lack of time, the many teaching loads and also the designations given to them. According to the interview conducted by the researcher, they still lack the necessary skills specially along computation, analysis and interpretation of data. These among others are some of the hindrances to the teachers in conducting research. Thus, these motivated the researcher to conduct this study. The results of this study will help teachers identify their research methodology skills which in turn will improve their research culture. This will also help them realize the Vision and Mission of Dep Ed Candon. Findings will serve as bases for the researcher to plan an enhancement program that will capacitate them in terms of their research difficulties. This will also comply with the extension function of the College.

Objectives of the Study - This study aimed to determine the research capabilities of Candon City Secondary Teachers School Year 2022-2023. Specifically, it sought to determine the following:

➢ Profile of the respondents in terms of sex, age, highest educational attainment, number of years in teaching, research seminars/conferences attended and average number or workload;

➢ Level of perceptions of teachers on challenges in doing research in relation to teaching and challenges that they face in doing research;

➢ Research level capability along research efficacy and research motivation

➢ Relationship between the profile and level of research level capability

➢ Strengths and weaknesses on the level of research capabilities of the respondents along the dimensions being considered

➢ Propose an enhancement program to be conducted.

2. Methodology

Research Design - The researcher used the descriptive correlational method of research. Descriptive correlational research design is a type of quantitative research design that aims to answer the question "How are things related?" It involves gathering data through surveys or observational methods to examine the relationships between variables. Surveys are efficient for collecting information about individuals' experiences, beliefs, and attitudes, while observation involves observing video recordings or using the experience sampling method to gather real-time data on participants' experiences. This design type does not involve manipulating the primary area of interest under investigation.

Population and Locale of the Study - The population of this study included all the 251 secondary teachers in the Division of Candon City School Year 2022-2023 However, there were only 179 teachers who were able and willing to answer the questionnaire.

Research Instrument - The main tool for gathering needed data was a questionnaire in checklist form. The perceptions on challenges in doing research and challenges in doing research was adopted from the work of Ulla (2017). Meanwhile the items on research motivation were adopted from the work of De Guzman (2016). The questionnaires were used by Dela Cruz (2022) in her study research entitled "Research capabilities of Teachers in the Second District of Ilocos Sur: Basis for Enhancement Program.

Data Gathering Procedure - Upon approval of the research proposal, the researcher went to the division Superintendent of Candon City and request permission to float the questionnaires to all the teachers of the five secondary schools. When permission was granted, the researcher went to the different schools informed and asked consent from the Principals. Questionnaires were distributed to the teachers when permission was granted. The researcher went personally to the teachers to retrieve for two times and the other questionnaires were retrieved by the Principal and gave them to the researchers.

Data Categorization - The following data categorization was utilized in the different problems raised in this study. Under Level of Research Capability along self- efficacy: Rating scale of 5 ranging 4.21-5.00 is Very Highly Efficacious (VHE), 4 ranging 3.41-4.20 is Highly efficacious (HE), 3 ranging 2.61-4.20 is Moderately Efficacious (ME), Rating scale of 2 ranging 1.80-2.60 is Fairly Efficacious, and 1 ranging 1.00-1.80 is poor. Under level of research capability along with motivation, a rating scale of 5, ranging 4.21-5.00 is Very Highly Motivated (VHM), while 4, ranging 3.41-4.21 is Highly Motivated (HM), 3, ranging 2.61-4.20 is Moderately Motivated (MM), 2, ranging 1.81-2.60 is Fairly Motivated (FM, and 1, ranging 1.00-1.80 is Poorly Motivated (PM). Moreover, for strengths and weaknesses a mean with 3.40 and below is considered weaknesses while 3.41 and above is strengths.

Treatment of Data - The data gathered were treated using the following tools: Frequency count and percentage were used in identifying the profile of the respondents and the level of perceptions of teachers on challenges in doing research in relation to teaching and challenges that they face in doing research. Weighted mean was utilized for the research level capability along research efficacy and research motivation and also the strengths and weaknesses on the level of research capabilities of the respondents along the dimensions being considered. The relationship between the profile and level of research level capability was determined through simple linear correlation.

Ethical Consideration - Prior to the distribution of questionnaires, the researchers informed the respondents about the nature of the study and its objectives. Their consent was humbly requested through a letter assuring that their identities and the data to be gathered from them will be kept confidential and intended for the study alone. When permission was granted, the questionnaires were given to them personally and retrieved from them after two weeks. The research instrument used in the study was adopted from the work of Dela Cruz (2022) Research Capabilities of teachers in the Second District of Ilocos Sur: Basis for Enhancement Program. Thus, the study does not need to be validated.

3. Results and discussions

Table 1
Profile of the Respondents

Variables	f	%
Age		
25 and below	31	17.32
26-35	58	32.40
36-45	58	32.40
46-55	28	15.64
56 and above	4	2.24
Total	179	100
Sex		
Female	128	71.5
Male	51	28.49
Total	179	100

Highest Educational Attainment		
Bachelor's Degree	114	63.69
Bachelor's Degree with MA units	24	13.41
Master's Degree	28	15.64
Masters' Degree with Doctoral units	7	3.91
Doctorate Degree	6	3.35
Total	100	100
Number of years in Teaching		
10 and below	127	70.95
11-20	31	17.32
21-30	18	10.06
31-40	2	1.11
41 and above	1	0.56
Total	179	100
Seminars/Training attended		
5 and below	150	84.92
6-10	20	11.17
11-15	5	2.79
16 – 20	1	0.56
21 and above	1	0.56
Total	179	100
Average Workload		
30 and below	171	95.53
31-35	3	1.68
36-40	5	2.79
Total	179	100
Number of preparations		
1-2	132	73.74
3-4	40	22.35
5-6	7	3.91
Total	179	100

Result of the Profile of the Respondents - Most of the respondents belong to the age bracket 26-35 years old followed by 36-45 years old and the least belong to the age bracket 56 and above. This finding could mean that these teachers are still at a young age hence they still many have years to be in their teaching profession. This finding is similar to the finding of De Guzman and De la Cruz that teachers are still at a young age and thus they are very capable of doing research. Female respondents dominated the male with 128 or 71.51% compared to 51 or 28.49%. This finding implies that the teaching profession is more attractive to females than the males. Most likely, students who are engaged in research and have more concentration in working various disciplines are females.

There are more teacher respondents who graduated with Bachelor's degrees 114 or 63.69% followed by those who have Master's degrees (28 or 15.64%) and 6 or 3.35% are Doctorate. Some of these teachers are not yet motivated to continue with their postgraduate studies since teaching in the secondary level does not require teachers to be Masters' degree holders. Most of the respondents have 10 and below years in service followed by 11- 20 years and the least have 31-40 years length of service. Their being young in the service is manifested also with their highest educational qualification of being a Bachelor's degree holder only. They short stay in this profession shows that they have more opportunities to strengthen their knowledge and skills in conducting research. This agrees with the findings of De Castro et. al. (2020) when they found out that their respondents belong to young age and have the greater stamina to do their tasks as educators and have more potential to undertake research activities. In terms of related training or seminars attended 152 or 84.92% of the respondents have attended 5 and below and 20 or 11.17% have 6-10 related seminars or training attended. Results only show that these teachers have few attendances in terms research related seminars and trainings. This is similar to the findings of De La Cruz (2022) and Villocino, et. al. (2019). As stated by Watkins, et. al (2006) at the basic education level research endeavor is not yet a norm thus it is not essential for teachers to attend research-related seminars and training. Most of the respondents have 30 and below-average workloads and the others have 31-35 average workloads. This finding is below the forty hours per week as mandated by the Civil Service hence the remaining hours are intended for additional assignments and other teaching-related activities. The respondent's

number of preparations is 1-2 and the highest range is 5-6. This could mean that these teachers are masters already of the assigned subjects.

Table 2
Respondents' Perceptions of Doing Research

Indicators	AGREE		DISAGREE	
	f	%	f	%
A. Challenges in doing Research in Relation to Teaching				
1. Doing research is valuable to the teaching and learning process for me as a teacher.	178	99.44	1	0.56
2. Doing research is valuable to the teaching and learning process for my students.	179	100	0	0
3. Doing research will positively impact my students' learning.	172	6.09	7	3.91
4. Doing a research project will positively impact my teaching.	178	99.44	1	0.56
5. I view myself as a teacher-researcher.	143	9.89	36	20.11
6. Doing research will develop and enhance my skills professionally.	176	98.32	3	1.68
7. Doing research encourages critical reflection.	172	96.09	7	3.91
8. Doing research engages teachers in a more systematic examination of instruction or teaching practice.	173	96.65	6	3.35
9. Doing research enables teachers to examine and explore classroom and school problems and their solutions.	170	94.97	9	5.03
10. Doing research helps teachers to acquire new knowledge for classroom teaching.	177	8.88	2	1.12
B. Challenges that teachers faced in doing research				
1. I do not have enough knowledge of how to do action research or any kind of research.	73	40.78	106	59.22
2. I find doing research time-consuming.	119	66.48	60	33.52
3. I am so busy with my own teaching practice and personal life to do research.	126	0.39	53	29.61
4. I do not have much support from the school to do research.	65	36.31	114	63.69
5. I have no interest to do research at all.	56	1.28	123	68.72
6. I am not motivated to do research.	77	3.02	102	56.98
7. I have a low proficiency in English which hinders me to do research.	59	2.96	12	67.04
8. I do not see the importance of doing research in my professional life.	26	4.53	153	85.47
9. The library has insufficient reference materials (journals, research books, research reports, etc.).	99	.31	80	44.69
10. There is a shortage of training and seminar on research activities.	95	53.07	84	46.93
11. There is an insufficient budget in the school to undertake research activities.	107	59.78	72	40.22
12. There is a lack of recognition of conducted research activities.	59	32.96	120	67.04
13. Heavy teaching load affects the practice of research.	137	76.54	42	23.46
14. There is a lack of clear role teachers in the school to conduct research.	75	41.90	104	58.10
15. Teachers 'involvement in action research/research papers should be one criterion of promotion.	107	59.78	72	40.22

Table 2 shows the perceptions of the respondents on the different challenges in conducting research. "Doing research is valuable to the teaching and learning process for my students "was viewed by one hundred percent of the teachers. This means that these teachers found the importance of research in the teaching-learning process. The respondents viewed the item "I view myself as a teacher-researcher by only 143 or 79.89%. Generally, the findings show that most of the teacher respondents find and agree that research plays a very vital role not only for themselves but more importantly for their students. This confirms the findings of Ulla et al., that the teacher participants show a very positive attitude towards research thus knowing and internalizing the significance of research to their classroom teaching and to their students' learning. Further results imply that doing research help them find solutions to the existing problems in their classroom in order to foster effective and efficient teaching and learning processes.

Further, item 3 stating "I am so busy with my own teaching practice and personal life to do research "followed by item 13 "Heavy teaching load affects the practice of research "garnered the highest agreement from the respondents respectively. These findings could mean that these teachers are so occupied with their teachings thus neglecting research. They do not have enough time to conduct research because of the many loads they have.

"I do not see the importance of doing research in my professional life "has the least agreement from the respondents. Results could imply that these teachers cannot feel the role of research in their life hence they are not motivated to conduct research. Furthermore, there seems to be no or little encouragement men from the top management.

Table 3
Research Capability Along Self-efficacy

Indicators	Mean	DR
Problem Conceptualization		
1. I can realize the problems that may contribute to my field.	3.59	HE
2. I believe I am proficient in creating hypotheses relevant to my research.	3.30	ME
3. I can explain my research problem by drawing the necessary relations with prior research results.	3.34	ME
4. I can find an appropriate title for my research.	3.10	ME
Literature Survey		
1. I can effectively carry out the literature survey by using various channels, the internet, library, etc.)	3.20	ME
2. I can systematically keep a record of the results of the literature survey.	3.34	ME
3. I do not find it difficult at all to compare the results of my research paper to prior research results.	3.18	ME
Research Design		
1. I can define the appropriate sampling method for my research.	3.19	ME
2. I can decide which approaches to use for my research problem, be it quantitative or qualitative.	3.39	ME
3. I can choose the appropriate data collection method necessary for my research.	3.18	ME
4. I can test the validity and reliability of my research data through appropriate methods.	3.11	ME
5. I can choose appropriate statistical methods to test or respond to my research hypotheses.	3.09	ME
Reporting		
1. I can approximately report the results of my analysis.	3.13	ME
2. I can discuss my research findings within a conceptual framework.	3.13	ME
3. I can create an appropriate titling system when writing up my research.	3.04	ME
4. I can utilize appropriate referencing in my research, whether direct or indirect.	3.13	ME
5. I can write an abstract of my research at ease.	3.05	ME
Over all Mean	3.10	ME

Legend: 4.21 – 5.00 Very Highly Efficacious (VHE), 3.41 – 4.20 Highly Efficacious (HE), 2.61 – 3.40
Moderately Efficacious (ME), 1.80 – 2.60 Fairly Efficacious (FE), 1.00 – 1.80 Poor (P)

Item number 1 on Problem Conceptualization stating that "I can realize the problems that may contribute to my field." is given a rating of "highly efficacious" by the respondents. The rest are rated "moderately efficacious "., however, item 5 "I can find an appropriate title for my research" is given the least numerical men rating. This may imply that the teachers are encountering problems that need to be solved but do not know how to write the correct and appropriate title of the research. Along the literature survey, all the items are given a "Moderately efficacious" rating. However, Item 3 "I do not find it difficult at all to compare the results of my research paper to prior research results "obtained the lowest numerical mean rating. This could imply that they are aware that there is much research already conducted and that they have no problem with citations. This finding disagrees with the finding of De Guzman et. al., (2016) when they found out that respondents were highly efficacious in carrying out literature surveys by using various channels, internet, the library, and the like. In relation to this, teachers who possess inadequate knowledge in research are not motivated to venture in research writing, thus, they cannot also motivate learners to conduct research.

As to research design, item 4 "I can choose appropriate statistical methods to test or respond to my research hypotheses" was given the lowest numerical mean rating which means that most of the respondents find difficulty in using appropriate statistical tools in their research. This finding agrees with the findings of Reinhart (2014) when he stated that researchers can do computation but are not sure of the appropriate treatment used. Moreover, this confirms also the finding of De La Cruz, 2023) that the teacher respondents are not efficacious enough with the use of appropriate tools needed in their research.

On reporting, item 3 "I can create an appropriate titling system when writing up my research" was given the lowest numerical mean rating. This confirms with the finding on problem conceptualization that these teachers are hard up in writing the appropriate title of their research. Generally, these teachers are moderately efficacious in terms of reporting research. Hence, they need to acquire more knowledge and skills in reporting research output for them to appreciate more the importance of research. This finding contradicts that of De Guzman when he found out that the respondents possess the essential skills in reporting their outputs.

As a whole, the research capability of the teachers along self- efficacy is moderate. Results imply that they need to strengthen their knowledge and skills in conducting research. These findings confirm the findings of Alvaro et. al. (2016) that some teachers are not skillful in conducting research action research and basic research. In order to improve the educational system, teachers need to conduct research to help solve classroom problems. Thus, teachers need to possess high self-efficacy towards research so that he/she will have high confidence in conducting research as Pamatmat (2016) mentioned.

Table 4
Research Capability along Motivation

Indicators	Mean	DR
1. I do research on monetary incentives.	3.05	MM
2. I do research for promotion.	3.33	MM
3. I do research because it is my responsibility as a professional.	3.28	MM
4. I do research because it allows me to travel.	2.65	MM
5. I do research because it is expected of me.	2.80	MM
6. Not doing my research gives me a feeling of shame.	3.05	MM
7. Doing my research makes me feel good about myself.	3.16	MM
8. I do research to mentor less-experienced researchers.	2.93	MM
9. I do research because it gives me a feeling of prestige.	2.88	MM
10. I feel proud of myself when I do research.	3.18	MM
11. I do research to encourage my fellow teachers to do the same.	3.18	MM
12. I do research to develop my skills.	3.25	MM
13. I do research to improve my teaching practices.	3.48	MM
14. I do research because it is a learning activity for me.	3.41	MM
15. I do research to attain my career goals.	3.34	MM
16. Doing research could help me to do better in my work.	3.35	MM
17. I do research to advance my knowledge in my field.	3.40	MM
18. I do research because it has become a part of me.	3.10	MM
19. Doing research is integral to the profession I have chosen.	3.02	MM
20. Doing research is a part of my life	2.88	MM
21. I do research because it is fun to do.	2.70	MM
22. I think research is a boring activity.	2.57	MM
23. I do research for the satisfaction it gives me.	2.93	MM
24. I do research because I want to.	2.81	MM
25. I enjoy doing research.	2.85	MM
26. I think research is an interesting activity.	2.91	MM
27. I will not do research unless assigned to do so.	2.68	MM

Legend: 4.21 – 5.00 Very Highly Motivated (VHM), 3.41 – 4.20 Highly Motivated (HM), 2.61 – 3.20 Moderately Motivated (MM), 1.80 – 2.60 Fairly Motivated (FM), 1.00 – 1.80 Poorly Motivated (PM)

Item 13 "I do research to improve my teaching practices", Item 14 "I do research because it is a learning activity for me" and Item 17 "I do research to advance my knowledge in my field" garnered a numerical mean rating of 3.48, 3.41 and 3.40 respectively with a descriptive rating of moderately motivated. These findings agree with the findings of De La Cruz (2023) that respondents in her study are moderately motivated also with these items. Teachers need to understand the significance of research so that they will be highly motivated as stated by Mamta Yadav (2019). Moreover, Hardre et al. (2012) emphasized that incentives do not productively motivate teachers to conduct research. This is further affirmed by De Guzman et. al. that the motivation of teachers to do research is within the individual. Furthermore, the administrators may encourage and support teachers in undergoing research activities so as to improve the knowledge, skills, and competencies of students.

Table 5
Correlation Between Profile and Efficiency and Motivation

Profile	Self-Efficacy		Motivation	
	Correlation Coefficient	p-value	Correlation Coefficient	p-value
Age	-0.193**	0.009	-0.195**	0.009
Sex	0.096	0.200	0.083	0.271
Educational Attainment	-0.020	0.787	-0.030	0.691
Years in Service	-0.136	0.070	-0.129	0.085
Seminars Attended	0.000	0.996	-0.037	0.627
Workload	-0.030	0.691	0.017	0.816
Preparation	0.023	0.755	0.007	0.923

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

It clearly reveals that age is significantly related to the researchers' capability along with self-efficacy and motivation and the rest of the respondent's profiles are not significantly related. Results could mean that since most of the respondents are still young in service, they do not find yet research to be essential in their careers. As a consequence, they are not yet motivated to conduct research. These findings confirm the result of De la Cruz study that age affects their self-efficacy and motivation in research. Furthermore, it also affirms the study of De Guzman when they found out that age, highest educational attainment, and average number of workloads are positively correlated with the research productivity of the respondents while sex negatively correlated with research motivation. Hence, to encourage teachers to venture into research they need to be capacitated through enhancement programs.

Table 6
Strengths and Weaknesses of the Respondents

Indicators	Mean	DR
Problem Conceptualization		
1. I can realize the problems that may contribute to my field.	3.59	S
2. I believe I am proficient in creating hypotheses relevant to my research.	3.30	W
3. I can explain my research problem by drawing the necessary relations with prior research results.	3.34	W
4. I can find an appropriate title for my research.	3.10	W
Literature Survey		
1. I can effectively carry out the literature survey by using various channels, the internet, library, etc.)	3.20	W
2. I can systematically keep a record of the results of the literature survey.	3.34	W
3. I do not find it difficult at all to compare the results of my research paper to prior research results.	3.18	W
Research Design		
1. I can define the appropriate sampling method for my research.	3.19	W
2. I can decide which approaches to use for my research problem, be it quantitative or qualitative.	3.39	W
3. I can choose the appropriate data collection method necessary for my research.	3.18	W
4. I can test the validity and reliability of my research data through appropriate methods.	3.11	W
5. I can choose appropriate statistical methods to test or respond to my research hypotheses.	3.09	W
Reporting		
1. I can approximately report the results of my analysis.	3.13	W
2. I can discuss my research findings within a conceptual framework.	3.13	W
3. I can create an appropriate titling system when writing up my research.	3.04	W
4. I can utilize appropriate referencing in my research, whether direct or indirect.	3.13	W
5. I can write an abstract of my research at ease.	3.05	W

It can be seen that only one indicator "I can realize the problems that may contribute to my field "is considered strength of the respondents. All the other indicators are considered weaknesses. Findings indicate that

there is really a need to improve the research capability of teachers along the different dimensions included along self- efficacy. Thus, it is very necessary to craft an enhancement program to help the teachers improve their research capabilities. As cited by Villocino et. Al (2019) if teachers are supported through research capability training, they can become good researchers because research serves as their tool for professional learning.

4. Conclusion and recommendation

Based on the result and findings of the study: a) most of the respondents are young, females, bachelor's degree holders, working 10 years and below, attended 5 and below seminars/training, with 30 and below average workload and 1-2 preparations; b) generally, despite the challenges faced by teachers in doing research in relation to teaching they showed interest in research; c) respondents' level of research capability along with self-efficacy and motivation is moderate. d) moreover, age is significantly related to teachers' research capabilities along with self-efficacy and motivation. From the 17 indicators, 16 are considered weaknesses and 1 is a strength. Anent to this, the following are the recommendations: 1) teachers are encouraged to pursue graduate school courses and attend research-related seminars/training/conferences to improve their knowledge and skills in research; 2) it is suggested that the administrators may use other strategies to motivate teachers to conduct research; 3)the administrators may consider giving more awards and recognition to teachers conducting research; and 4) the administrator may establish linkage/partnership with other agencies/higher education institutions to provide programs that may help strengthen the research skills of teachers.

5. References

Abarro, Juan O. a & Marino, Wilfredo p. (2016) Research Capabilities of public Secondary and Elementary School Teachers in the Division of Antipolo City. International Journal of Scientific and Research Publications, Volume 6, issue 6 pp 407-410

Ali Asghar Hayat, Karim Shateri, Mitra Amini and Nasrin Shokrpour. Relationship between academic self efficacy, learning-related emotions, and metacognitive learning strategies with academic performance in medical students: A Structural equation model

Caingcoy, Manuel. Research Capability of Teachers: Its Correlates, Determinants and Implications for Continuing Professional Development.

Creasel B. Sison Research Attitude and Capabilities of Selected Academic Librarians Towards Preparation in Conducting Research Philippine Women's University

De Guzman, Jaypee E. and Dela Rosa Elmer D. (2016) Research Productivity Faculty Members in Selected Teacher Education Institution. Research Journal of the College of Teacher education, Volume XVL, No. 30 50-93

De la Cruz, Tessie L. and Dela Cruz, Daniel D. (2022) Research Capabilities of Teachers in the Second District of Ilocos Sur: Basis for Enhancement Program

J. L. de Cruz, A. (2016). Ilocos Sur Polytechnic State College, "The Research Capability of Ilocos Sur Polytechnic State College: A Basis for A capability Enhancement Program." Vol. 5, no. 7, 2016.

Fernando Doménech-Betoret, Amparo Gomez Artiga and Laura Abellan Rosello Self-efficacy, satisfaction, and academic achievement: the mediator role of students' expectancy-value beliefs

O. Juan, D. Ph, P. Wilfredo, and D. Ph, "Research Capabilities of Public Secondary AND Elementary School Teacher in the Division of Antipolo City," vol. 6, no. 6, pp. 407-410, 2016.

Hardre et al. (2012) Faculty Motivation to do Research: Across Discipline in Research Extensive Universities: The Journal of the Professoriate, 5 (1) 32-69

K.P. Meera and Jumana. M. K2 Self-efficacy and Academic Performance in English

Mamta Yadav (2019). Research Experience for Teachers: A Road Map for Educational Enhancement and Growth in Stem Enrollment Trends, International Journal of Science and Research. Volume 75 Number 1.

M. D. Salom, "Research capability of the faculty members of DMMMSU MID La union campus," no. 1993, pp. 45-55, 2013.

Orpia, Tolentino, Kheneth S. The Research Capability of Secondary School Science Teachers

P. Manolito, B. Basilio, P. David, and C. Bueno (2019) "Research Skills and Attitudes of Teachers in a Division towards Capability Training," pp. 163-171, 2019.

Pamatmat (2016) Research Attitudes of Teaching Personnel in One Philippine State University: Basis for Development and Sustainability Towards Excellence. Journal of Language and Literature. Volume 3, 12-17

Reinhart, A. N.D (2014) Statistics done wrong. The Woefully Complete Guide. Retrieved from http//www.Statistics donewrong.com/Slade,

Kathleen, G and Mamaoag, Natividad R (2021)

Ulla, Mark B. et al. (2017) Philippine Classroom Teachers as Researchers: Teachers' Perceptions, Motivations and Challenges. Australian Journal of Teacher Education http://ro.ecu.edu/ajte/vol 42Issue 11

Villocino, et. al. (2019). Increasing Research Capability Among Master Teachers in the Countryside Area of the Philippines: Bases for Proposed Program Intervention. The Countryside Development Research Journal. Volume 7 Issue 1 33-39

Watkins, and Amanda (2006) So What Exactly Do Teacher Researchers Think About Doing Research Retrieved Sept 5, 2023 https://eric.Ed.gov/?id=EJ733267

Zandro O. Perez, Antonieta V. Minyamin, Rosita D. Bagsit, Grace B. Gimena, Wym V. Dionaldo, Elisheba S. Padillo, Olympia G. Lovoie, Cyril A. Cabello. Research Capability of Faculty Members in Higher Education Institutions: Basis for Research Management Plan

ON LINE SOURCES:

http://study.com/academy/lesson/master-teacher-definition-and-examples.html

http://study.com/academy/lesson/master-teacher-definition-and-examples.html

https://www.betterteam.com/strengths-and-weaknesses

http://education.qld.gov.au/staff/development/employee/teachers/master-teachers.html

http://education.qld.gov.au/staff/development/employee/teachers/master-eachers.html

https://www.adelaide.edu.au/rsd/framework/explanation/

University students' engagement with mobile device and its academic impacts in developing countries: Lesson from Sokoine University of Agriculture - Tanzania

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Abstract

The increasing use of mobile devices for various purposes is marked globally, though there are concerns about the differences in usage between students in developed and developing countries, potentially leading to academic performance disparities. This cross-sectional study investigated patterns of engagement with mobile devises among university students at Sokoine University of Agriculture (SUA) in Tanzania, and its impact on their academic performance. The study involved 1,012 second and third year undergraduate students from two of SUA's largest campuses. Respondents voluntarily responded to the online shared 5-point Likert scale researcher-prepared questionnaire, previously piloted with 70 first-year students. Descriptive statistics summarized the data, while a Chi-square test assessed the relationship between mobile device usage for learning and academic performance. Results indicated that students predominantly used mobile devices for learning compared with non-learning purposes, with accessing educational materials being the most common activity for which the students used mobile devices. Furthermore, the study revealed positive albeit insignificant relationship between mobile device usage for learning and academic performance. The study suggests that policymakers consider implementing blended courses to influence students' mobile device usage habits. Additionally, educators are encouraged to integrate more online activities into their teaching to optimize students' use of mobile devices for academic purposes.

Keywords: mobile devices, mobile device usage, academic performance, university students, developing countries

University students' engagement with mobile device and its academic impacts in developing countries: Lesson from Sokoine University of Agriculture - Tanzania

1. Introduction

The integration of mobile devices (MDs) such as smartphones, tablets, and laptops into education has fundamentally reshaped the way students learn and engage with educational content. Over the five past decades, MDs have become essential tools for fostering accessibility, flexibility, and personalized learning experiences. They enable students to access a vast array of resources, connect with peers and educators globally, and engage in interactive, multimedia-rich learning environments (Dhawan, 2020). As educational institutions increasingly incorporate digital tools into their curricula, MDs facilitate a shift towards more student-centered learning, enhancing collaboration and problem-solving skills. Moreover, the integration of mobile learning technologies aligns with the growing demand for preparing students for an increasingly digital world, equipping them with the technological skills needed in their academic and professional pursuits.

Given the usefulness of MDs, ownership among students has risen dramatically worldwide, becoming a significant factor in the education sector. Dhawan (2020) and Elliott (2023) inform that that over 90% of students globally now own a mobile device, with the highest penetration rates observed in developed countries. In regions such as North America, Europe, and parts of Asia, smartphones and tablets have become ubiquitous, enabling students to access educational content and engage in digital learning. For example, Elliott (2023) revealed that 98.3% of college students in the United States own a smartphone, 92.5% own a laptop, and 35.2% own a tablet. The trend is also evident in developing nations. Reports inform an increas in the use of MDs amongst students (Masika et al., 2015). Despite this high rate of penetration of MDs in developing countries, still there is inadequate access for some advanced devices such as laptop and tablets. Mobile phones appear to be affordable alternatives to traditional computers (Kavuta, 2018). That is to say, there is notable disparity in ownership rates and types of MDs based on socio-economic status, urban-rural location, and local infrastructure.

While substantial research exists on the use of mobile devices in education in developed countries (Foen et al., 2017), there remains a significant gap in studies focusing on their usage among students in developing countries (Lamptey & Boateng, 2017). This discrepancy is critical, as mobile device ownership rates are increasing in these regions, and the impact of MDs on education performance remains largely underexplored. In developed countries, MDs have been integrated into classrooms as part of structured learning environments. The situation is somewhat different in developing countries, where mobile devices are often used more informally, with students leveraging them largely for social and ordinary communication purposes (Kibona & Mgaya, 2015). The differing contexts of MD usage between these regions suggest that their educational impacts may vary, with factors such as limited internet connectivity and infrastructure (Tayo et al., 2015), and socio-economic status (Al-Barashdi et al., 2015) influencing the effectiveness of mobile learning. Therefore, investigating the patterns of mobile device usage among students in developing countries is crucial to understanding its potential benefits and challenges. By examining these patterns, this study aims to explore how mobile devices influence educational outcomes and how these insights can inform policies to maximize their positive impact in resource-limited settings. This study aimed at filling this knowledge gap.

Study context and purpose - As for the rest of the world, the government of the United Republic of Tanzania acknowledged the importance of digital technologies in education. This recognition is reflected in the formulation of the National ICT Policy and the Education and Training Policy. These policies stress the importance of digital literacy, e-learning platforms, and equal access to technology as vital components for enhancing educational quality. Such initiatives signal a strong commitment to leveraging technology to bridge gaps in educational delivery and promote lifelong learning opportunities.

Recent data reveal that mobile device (MD) ownership among university students in Tanzania is widespread. Smartphones, in particular, have emerged as the most commonly used digital devices among students, surpassing tablets and laptops (Mfaume et al., 2018). According to Cowling (2024), Tanzania registered approximately 67.72 million mobile connections (excluding IoT) as of 2024, adding that overall, mobile connections corresponded to over 86 percent of the country's population. One of groups which use mobile phone internet extensively is students in Higher Learning Institutions (HLIs). This claim is supported by the study by Kibona and Rugina (2015), which reported that 75% of university students owned smartphones, with an additional 15% accessing them through borrowing. This means a combined 90% of students rely on smartphones for various activities.

Despite high levels of MDs ownership, anecdotal evidence suggest that students' use of MDs remains unstructured and lacks academic focus. Pattermann et al. (2022) suggest that while many students mainly use laptops for course-related activities, they also take out their smartphones to engage in non-course-related activities, such as checking social media, texting and reading or writing emails. This situation brings worries, indicating that many students are unsure about the appropriate contexts, timing, and purposes for using their MDs. In fact, the researchers' converstaion with university lecturers suggest that students use MDs during lectures, even when the lecture does not require their use. While these issues highlight the gap between the aspirations outlined in policies and the proper use of MDs in Tanzanian education, there is a lack of empirical research in Tanzania regarding the broad usage patterns of MDs among university students and how such patterns impact academic performance. This study aims to cover this information gap, intending to provide evidence-based insights that will inform policy adjustments, promote best practices, and support a more balanced integration of MDs in the educational process.

Significance of the Study - This study contributes to the existing literature on mobile device usage among university students by focusing specifically on the context of a developing country, namely, Sokoine University of Agriculture in Tanzania. While previous research, such as Dhawan (2020) and Elliott (2023), has largely focused on developed countries, this study addresses a critical gap in understanding the unique dynamics of mobile device integration in higher education within developing nations. By investigating the patterns of MDs usage and its impact on academic performance among students at Sokoine University of Agriculture, this study provides valuable insights into the challenges and opportunities presented by the increasing reliance on mobile technology in higher education settings within developing countries. This research can inform pedagogical practices, institutional policies, and resource allocation decisions to effectively leverage the potential of mobile devices for enhancing student learning outcomes while mitigating potential challenges.

Specifically, this stud examined: Patterns of mobile devices usage among university students, and the relationships between academic performance and MDs usage for learning purposes among 2nd and 3rd year SUA students.

2. Literature

Mobile devices (MDs) have revolutionized education globally, providing unprecedented opportunities for access, flexibility, and interactivity in learning. These tools have reshaped the educational landscape, fostering student-centered learning and equipping learners with critical technological skills. The literature on MDs predominantly focuses on their integration into formal education systems, highlighting their benefits in enhancing collaboration, problem-solving, and personalized learning experiences. However, disparities in ownership, accessibility, and usage patterns between developed and developing countries necessitate a nuanced understanding of their educational impacts. This review explores existing literature on MD ownership and accessibility, usage patterns, barriers to effective usage, and the positive and negative impacts of MDs on academic performance, emphasizing contextual differences.

2.1 Ownership and Accessibility

Studies consistently highlight the widespread ownership of MDs among university students, making them ubiquitous tools in higher education (Dhawan, 2020; Elliott, 2023). In developed countries, over 90% of students own at least one mobile device, with laptops and smartphones being the most common (Elliott, 2023). This high ownership rate facilitates continuous access to educational content, enabling students to engage with materials anytime and anywhere. In contrast, ownership patterns in developing countries reveal a different narrative. While mobile phones are widely accessible due to their affordability (Kaliisa et al., 2019), advanced devices such as laptops and tablets remain beyond the reach of many students (Kavuta, 2018). Lamptey and Boateng (2017) observe that socio-economic factors significantly influence device ownership, with students from urban areas and higher-income families having greater access to advanced MDs compared to their rural and lower-income counterparts. This disparity, according to Kaliisa et al. (2019), affects the ability of students to participate fully in mobile learning activities, often limiting their engagement to less resource-intensive applications.

2.2 MDs usage scope

MDs have become indispensable tools for university students worldwide, serving a wide range of academic and non-academic purposes. Their versatility and portability make them essential for accessing resources, enhancing productivity, and fostering connectivity. While university students use MDs for academic activities, this tendence is more prevalent in more structured environments (Essel et al, 2018). In such environments, MDs are integrated into classroom activities to support interactive learning, facilitate communication with educators, and access digital libraries (Foen et al., 2017). Elliott (2023) further notes that university students use MDs for participating in virtual lectures, managing assignments, and for collaborating on group projects. Students often use mobile devices for informal learning, such as watching educational videos, searching for academic resources, or engaging in online discussions (Essel et al., 2018). Students utilize MDs for personalized learning experiences, leveraging e-books, online tutorials, and multimedia resources to deepen their understanding of complex concepts. (Foen et al., 2017). Furthermore, they use MDs to facilitate seamless communication with peers and instructors through email (Alfawareh & Jusoh, 2014 , 2014; Ramadhani, 2018) and accessing the learning management systems and collaborative tools such as Google Workspace and Microsoft Teams (Ally & Wark, 2018).

Beyond academic purposes, university students frequently rely on mobile devices (MDs) for a variety of non-academic activities that support their social and personal lives (Ahmad, 2017; Sserunkuma et al., 2023). Social media platforms like Facebook, Instagram, and Twitter allow students to stay connected with friends, share experiences, and engage in online communities (Gikas & Grant, 2013; Mahenge & Sanga, 2016). Instant messaging apps such as WhatsApp and Snapchat facilitate real-time communication, enabling students to maintain personal relationships with family and peers, even over long distances. Additionally, mobile gaming provides an entertainment outlet, offering students a break from their studies (Lepp et al., 2015). These non-academic uses of MDs not only offer students relaxation but also serve as coping mechanisms for stress, making MDs integral to their overall well-being and social integration (Dhawan, 2020).

2.3 Academic Impacts of using MDs

The integration of MDs into education has been associated with several positive academic outcomes. One significant advantage is the enhancement of personalized learning experiences. Dhawan (2020) emphasizes that mobile learning technologies allow students to learn at their own pace, catering to individual needs and preferences. This flexibility is particularly beneficial for students with varying learning styles or those requiring additional support. Collaboration and communication are other key areas where MDs have made a positive impact. By enabling seamless interaction among students and between students and educators, MDs foster collaborative learning environments (Foen et al., 2017). For instance, platforms like Google Workspace and Microsoft Teams allow students to work on shared documents, participate in virtual meetings, and manage group

projects efficiently. This collaborative aspect not only enhances learning outcomes but also prepares students for teamwork in professional settings. Mobile devices also support the development of critical thinking and problem-solving skills through access to diverse resources and interactive tools (Maharjan et al., 2022). According to Elmqaddem (2019), applications such as simulation software and augmented reality platforms provide immersive learning experiences, enabling students to explore complex concepts in innovative ways.

While MDs offer numerous benefits, their misuse can have detrimental effects on academic performance. One significant concern is the potential for distraction. Studies indicate that students students often spend significant time on social media, instant messaging, and gaming, which, though providing relaxation and connection, can become distractions when not properly managed (Lamptey & Boateng, 2017). Without clear boundaries on when, where, and for what purposes MDs are used, students risk falling into the trap of excessive, non-academic usage. This multitasking behavior negatively impacts concentration and reduces the quality of learning (Aivaz & Teodorescu, 2022) and tends to lead to procrastination, decreased focus during study sessions, and reduced overall academic engagement (Abbas et al., 2020). Furthermore, Bhandarkar et al (2021) emphasizes that frequent interruptions from notifications or social media can hinder cognitive processes, negatively affecting the quality of learning and performance in exams or assignments. Another challenge is that the overreliance on digital tools can undermine traditional learning skills such as note-taking, critical reading, and problem-solving (Kibona & Mgaya, 2015; Mfaume et al., 2018). According to Mfaume et al. (2018), overreliance to MDs led to distraction of concentration, impairment of handwriting skills and speed, poor attendance to the lecture sessions, and distortion of students' ability to compose and organize their own work.

2.4 Barriers to effective usage of MDs

Several barriers hinder the effective use of MDs in education. Socio-economic factors play a significant role, with students from low-income families or contexts often unable to afford advanced devices or internet connectivity. Infrastructure deficits, including limited broadband access and unreliable electricity, further exacerbate the digital divide (West, 2015). These challenges are particularly acute in rural areas, where access to stable internet connections and affordable data plans remains limited (de Freitas & Spangenberg, 2019).

Digital literacy poses another challenge, particularly among students unfamiliar with leveraging MDs for educational purposes (Lamptey & Boateng, 2017). Many students lack the skills to effectively utilize MDs for academic tasks. This gap in digital literacy is compounded by a lack of support systems. According to Winskel et al. (2019), many learning institutions do not provide sufficient training to students on the best ways to integrate MDs in their learning (Winskel et al., 2019). Consequently, many students lack the skills and confidence needed to effectively utilize MDs for learning purposes. For example, most students tend to engage in non-learning activities while learning sessions were in progress. Students with poor digital literacy fail to establish clear boundaries regarding when, where, and for what purposes to use MDs.

Institutional culture present additional barriers to the effective use of mobile devices (MDs) in education, particularly in resource-limited settings. Due to traditional mindsets and conservativeness, many educators appear to discourage the adoption of new technologies. Conservative teachers tend to view the adoption of new technologies such as MD in education as distractions that hinder learning rather than as tools that can enhance educational outcomes. Resistance to laverage MDs in education can be influenced by institutional policies. These include rigid curricula, outdated teaching frameworks, and inadequate provisions for technology use in classrooms (Habibu et al., 2012; Nyakito et al., 2021). Additionally, the scarce of professional training opportrnities leads to many educators lacking the skills and confidence needed to effectively utilize MDs for academic purposes. Consequently, they become less likely to a encourage others to do so in meaningful ways (Winskel et al., 2019). Where digital literacy is low, insufficient institutional support (e.g., inaccess to technical assistance and educational software) prevails, compounding these challenges (Nalaila et al., 2022). In such situations, the entire system appear to be unsupportive for students to lavergage MDs in their education.

Given the information above, the literature informs contextual differences in the ownership and scope of use of MDs. The use of mobile devices (MDs) among university students differs notably between developed and developing countries. In developed nations, where MDs are often integrated into structured curricula, students benefit from ecosystems designed to enhance mobile learning (Foen et al., 2017). For instance, Nikolopoulou et al. (2023) examined MD usage among university students in Turkey and found that 83% of students utilized MDs for accessing academic content, such as e-books, lecture notes, and research articles. Similarly, a study by Campbell and Sundaram (2018) reported that 78% of students in Canadian universities used MDs for collaborative projects, leveraging apps and platforms like Google Docs and Slack to enhance group work efficiency. Additionally, in European higher education institutions, MDs are integrated into blended learning models. For example, Gikas and Grant (2013) found that MDs were extensively used in flipped classrooms to watch pre-recorded lectures and collaborate on projects.

However, in developing countries, MDs are frequently used for non-academic purposes. For instance, Ahmad (2017) conducted a study involving 38 students from Kampala University, revealing that 76.31% (29 out of 38) used their MDs in classrooms to play interactive games unrelated to learning. Moreover, 84.21% (32 out of 38) used their devices to watch videos, while 50% (19 out of 38) engaged in social media networking, primarily on platforms like Facebook, Twitter, and LinkedIn. Similarly, a study by Sserunkuuma et al. (2023) on 269 medical students found that 74.34% were addicted to social media. In Tanzania, Kibona and Mgaya (2015) examined 100 university students, reporting that 65% used MDs for social activities, such as chatting with friends and accessing celebrity information. Alarmingly, 69.3% admitted to replying to messages during class, and 56.3% acknowledged that MD usage sometimes hindered their academic productivity.

3. Methodology

Research approach and Design - This study employed a cross-sectional survey design. As noted by Creswell (2009), this design is both cost-effective and efficient for studies involving large sample data collection at a single point in time. A quantitative approach was used to address the study's objective. This approach was selected to ensure the findings could be generalized to the entire population within the study area.

Population, sample size and sampling procedure - The study involved undergraduate (first degree) university students within two campuses of Sokoine University of Agriculture namely Edward Moringe and Solomon Mahlangu. The two campuses were selected because they are the oldest campuses and had many students compared to the other three. However, only second and third-year students were involved as these had completed at least one semester at the university, and therefore, could provide information about their GPA, an important variable for this study. The study aimed to recruit a sample of 1,058 respondents from 10,580 second year and third year undergraduate students enrolled at the two campuses during the time of this study. According to Nwana (1981) (as cited in ADEKEYE and Paulina, 2019), the 10% of the population is an appropriate sample. To ensure adequate representation of students from colleges and schools, the respondents were invited online through the link shared to degree-program class representatives through WhatsApp groups. Thus, respondents were obtained through self-selection. According to Vehovar et al (2016), online self-selection survey can be regarded as probability sampling method. The study included second- and third-year undergraduate students enrolled in a first-degree program at Sokoine University of Agriculture during the 2023/2024 academic year. Importantly, data were collected from participants who voluntarily consented and completed the survey. That is to say, students outside these undergraduate year levels and postgraduate students were excluded.

Instrument and data collection - Self-designed two-sectioned questionnaire was used to collect the primary data from respondents. The first section of the questionnaire collected respondents' demographic information (sex, registered campus, year of study and GPA). Note should be taken that the students' GPA, which indicated their academic performance levels, was self-reported akin to other collected data. The second section was 5-point Likert scaled consisting of 19 items measuring two sub-scale variables: the learning related uses of MDs variable (11 items) and the non-learning related uses of MDs variable (8 items). The 5-point Likert scaled

options ranged from Never (1), Seldom (2), Sometimes (3), Often (4) and Always (5). Experts review was used to insure the content validity of the questionnaire items. Further, the reliability of the two sub scales were ascertained using Cronbach's alpha coefficient. The reliability of the subscales was 0.719 and 0.768 for Academic related use of MDs and Nonacademic related use of MDs respectively. These values are above 0.7, which is recommended by academics such as Olaniyi (2019) and Taber (2018) as sufficient indicator of a good internal consistency of questionnaire items.

Before distributing the questionnaire, the research sough research ethic clearance from and research permit conduction from SUA. Each questionnaire had an introductory section where the purpose of the study and the freedom of participation and other research participation rights were highlighted. Every participant was required to sign a consent form showing willingness before responding to the questionnaire. Data collection was done online from 16/02/2024 to 04/03/2024 via google form. According to Nulty (2008), the online distributed questionnaires helps in avoiding several jams that would be encountered using manual data collection procedures. Upon receiving the predetermined number (581 from Edward Moringe and 477 from Solomon Mahlangu) of respondents from each campus, the researcher deactivated the link so that no more respondents could access.

Data analysis - Both descriptive and inferential statistical procedures were used to analyses the data collected. Descriptive statics (Mean and standard deviation) was used to analyze data collected to answer the first objective. Further, inferential statistical procedures, particularly the Chi-Square Test was used to analyze the data to answer the second research objective. Chi-Square was chosen since the tested variables (MDs usage for learning and academic performance) were categorical.

4. Results and Discussion

Demographic characteristics - The study aimed to reach 1058 respondents, however, only 1012 dully filled questionnaire was collected. This made the respondent rate of 95.6%, among other factors, regular reminder (Van Mol, 2017) sent to respondents WhatsApp groups is likely to have contributed to this good response rate. Table 2 provides a summary of demographic characteristics of respondents.

Table 2
Demographic characteristics of respondents

University campus	Sex	Counts and percent	Study level 2nd Year	3rd Year	Total
Edward Moring	Female	Count	155	111	266
		% within Sex	58.30%	41.70%	100.00%
	Male	Count	220	74	294
		% within Sex	74.80%	25.20%	100.00%
	Total	Count	375	185	560
		%	67.00%	33.00%	100.00%
Solomon Mahlangu	Female	Count	66	109	175
		% within Sex	37.70%	62.30%	100.00%
	Male	Count	98	179	277
		% within Sex	35.40%	64.60%	100.00%
	Total	Count	164	288	452
		%	36.30%	63.70%	100.00%
Total	Female	Count	221	220	441
		% within Sex	50.10%	49.90%	100.00%
	Male	Count	318	253	571
		% within Sex	55.70%	44.30%	100.00%
	Total	Count	539	473	1012
		%	53.30%	46.70%	100.00%

As it can be seen from Table 2, the sample was somewhat skewed towards male respondents, with 56.4% being male and 43.6% being female. However, following student's data from SUA Director of undergraduate studies office where males are 6227 and females 4353, this suggests that male's participation is only 9% of their total population while females are 10%. Thus, representativeness was almost equal and fair between females and males. Also, second-year students seem to be slightly more represented than third-year students. According to

population data, second year have been represented with 12% of the total population while third-year with only 8%. This signifies that second-year students appeared to willingly participated in the study than third-year students. This might be attributed by the finalist students being highly occupied with other activities like job searching compared to their counterparts. In case of campus representativeness, there were fair for both of two campuses.

Patterns of using MDs among university students - The descriptive statistical test (see Table: 3) was performed on the MDs usage categories (Learning related uses and Non-learning related uses). The results show students preferably use their MDs for learning related use (M = 1.67 and SD= .47). In contrast, non-learning related uses were uniformly rated low by all students with mean of 1(SD= 0). The analysis reveals significance variation in MDs usage preferences with learning related uses being the most preferred compared to non-learning related usage. The variation in learning related usage preference suggests differing in opinions amongst students.

Table 3
Usage categories

Usage category	Mean	Std. Deviation
Learning related uses	1.6709	0.47
Non-Learning related uses	1	0

These results show that the majority of university students who participated in this study predominantly use MDS for learning related purposes. While these results support those reported previously by Rockey et al (2023) and Bikumalla et al (2017) conducted in developed countries, they contradict with most of the other previous studies regarding the purpose for which students use MDs. For example, the qualitative study by Kaysi et al (2021) involving 34 participants conducted in Turkey found a significant number of students were not using MDs for following educational programs or improving learning. Surprisingly, the study by Kibona and Mgaya (2015) conducted in Tanzania using a sample of 100 HLI students, reported a majority (65%) of respondents using their MDs for non-academic uses, relative to only 20% who use for educational purposes. This difference may be due to variation in sample size used in the study. Furthermore, descriptive statistic was carried on each of the sub-scale items to establish which specific purpose the study respondents used their MDs for. As indicated in Table 4, the respondents' most frequent use of mobile devices was for accessing educational materials, such as lecture notes and e-books (M=3.631; SD=1.01), while the least frequent use was for taking notes during lecture sessions (M=2.86; SD=1.31). This is consistent with the study by Surjandy and Julisar (2017) where it was found 79% of respondents acknowledged to use their MDs for accessing educational resources particularly e-books.

Table 4
Learning related uses statistics

SN	Item	Never (%)	Seldom (%)	S/times (%)	Often (%)	Always (%)	Mean (M)	SD
1	I use my MD(s) for accessing course information (syllabus, assignments etc.)	40 / 4	94 / 9.3	244 / 24.1	228 / 22.5	406 / 40.1	3.92	1.77
2	I use my MD(s) for accessing educational materials (e.g., lecture notes, e-books).	11 / 1.1	71 / 7	222 / 21.9	286 / 28.3	422 / 41.7	4.02	1.01
3	I use my MD(s) to explore further topics covered during the lecture	44 / 4.3	110 / 10.9	261 / 25.8	300 / 29.6	297 / 29.3	3.69	1.13
4	I use my MD(s) for reading course materials provided by lecturers	38 / 3.8	95 / 9.4	217 / 21.4	294 / 29.1	368 / 36.4	3.85	1.13
5	I use my MD(s) to find reference materials for class activities and assignments	29 / 2.9	73 / 7.2	226 / 22.3	318 / 31.4	366 / 36.2	3.91	1.06
6	I use my MD(s) to view pictures (diagrams, maps, etc.) related to my courses	24 / 2.4	113 / 11.2	273 / 27	311 / 30.7	291 / 28.8	3.72	1.07
7	I use my MD(s) for multimedia content that aids in my learning	29 / 2.9	112 / 11.1	309 / 30.5	292 / 28.9	270 / 26.7	3.65	1.07
8	I use my MD(s) for audio or video	267	209	256	160	120		

Sn	Item	Never	Seldom	S/times	Often	Always	Mean	SD
	recording of class lectures	26.4	20.7	25.3	15.8	11.9	2.66	1.34
9	I use my MD(s) for communicating with colleagues about class assignment	22 / 2.2	94 / 9.3	246 / 24.3	264 / 26.1	386 / 38.1	3.89	1.09
10	I use my MD(s) to schedule my learning activities	37 / 3.7	90 / 8.9	247 / 24.4	267 / 26.4	371 / 36.7	3.83	1.13
11	I use my MD(s) for taking notes during lecture sessions	194 / 19.2	213 / 21	294 / 29.1	162 / 16	149 / 14.7	2.86	1.31

KEY: N= 1012; Decision – Weighted average = 40/11= 3.64; Standard deviation = .609

Regarding non-academic related uses, analysis (see Table 5) shows that students mainly engaged on personal communication like texting, calls and chatting during the lecture sessions (M = 3.39; SD = 1.15). The least non-learning related uses of MDs were playing games during lecture sessions (M=2.38; SD=1.36). These findings echo those reported in the previous but current literature. For example, Kibona and Mgaya (2015) reported students using MDs for texting while waiting to receive calls during classrooms and that this practice significantly made them loose concentration in learning.

Table 5
Non- learning related use statistics

Sn	Item	Never (%)	Seldom (%)	S/times (%)	Often (%)	Always (%)	Mean	SD
1	I use my mobile device for personal communication (e.g., texting, calls, chatting) during lecture sessions]	155 / 15.3	169 / 16.7	166 / 16.4	168 / 16.6	354 / 35	3.39	1.48
2	I engage in distracting activities on my mobile device, such as social media, during lecture sessions	347 / 34.3	214 / 21.1	199 / 19.7	132 / 13	120 / 11.9	2.47	1.38
3	I use my mobile device to browse websites unrelated to the course content during lecture sessions	320 / 31.6	183 / 18.1	252 / 24.9	156 / 15.4	101 / 10	2.54	1.34
4	I communicate with friends or engage in non-academic conversations during lecture sessions	383 / 37.8	193 / 19.1	204 / 20.2	134 / 13.2	98 / 9.7	2.38	1.36
5	I prioritize non-academic activities on my mobile device over post-lecture learning	209 / 20.7	255 / 25.2	265 / 26.2	147 / 14.5	136 / 13.4	2.75	1.3
6	I rarely use my mobile device for academic purposes after attending lectures.	108 / 10.7	186 / 18.4	243 / 24	225 / 22.2	250 / 24.7	3.32	1.31
7	I find myself distracted by unrelated content on my mobile device during and post-lecture sessions	152 / 15	241 / 23.8	295 / 29.2	173 / 17.1	151 / 14.9	2.93	1.27
8	After lecture session, I use my mobile device for entertainment than for learning	106 / 10.5	233 / 23	376 / 37.2	172 / 17	125 / 12.4	2.98	1.15

KEY: N= 1012; Decision – Weighted average = 22.76/8= 2.845; Standard deviation = .819

Based on these results where weighted mean for learning related uses being 3.64 and that of non-learning related uses 2.845 yielding mean difference of 0.795 this suggests that there is moderate variation in these two usage categories.

Relationship between learning related use of MDs and students' academic performance - A Chi-square Test was conducted to examine the relationship between learning related uses of MDs and students' academic performance. On observing the contingency table's expected and observed values, the minor variation in values was noted. This implies that university students' academic performance is somewhat independent of MDs learning related uses. The Chi-square result table (see Table 6) revealed a non-significant relationship between these two variables (Learning related uses and academic performance) (X^2= 2.41, df=3, p = .492). Further, the Phi and Cramer's V values were found to be .049, with a p-value of .0492, which indicates that the Phi/Cramer's V value is relatively small and statistically insignificant. This means that there is no significant relationship between the MDs learning-related usage and students' academic performance. These results suggest that observed distribution of frequencies in the cross-tabulation table is likely to occur by chance. Therefore, it is an indication that there was no direct relationship between MDs learning related uses and students' academic performance.

As it was observed that students prioritized learning related uses of their MDs over non-learning, and therefore it was expected that results could show significant positive relationship between MDs learning related

usage and academic performance. However, the tests have shown the lack of significant relationship between the two variables (p-value = .492, CI=95%). This means that, regardless of students' use of their MDs for learning being high or low, their academic performance is independent of these uses. These findings alarm that students' academic performance may be influenced by many other factors apart from the use of MDs. This insignificant relationship of MDs learning related uses may be attributed by the preferred learning use. As it was found from descriptive analysis, the most preferred use was for accessing educational materials (e.g., lecture notes, e-books) having mean of 3.631 (SD=1.01).   This type of use may have low impact on stimulating academic performance.

Table 6
Chi-square test results

Chi-Square Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.41a	3	0.49
Likelihood Ratio	2.44	3	0.49
Linear-by-Linear Relationship	0.42	1	0.52

Note; 'a' is degree of freedom.

The findings of the current study are consistent with previous research that examined the link between mobile device usage and academic performance (Joy & Lacificar, 2018; Imran et al., 2023). In their investigation of mobile device usage and its impact on the academic performance of college students, Joy and Lacificar (2018) observed moderate usage for learning-related activities; however, their analysis indicated no significant correlation between device usage and academic performance. Similarly, Imran et al (2023), in their cross-sectional survey involving 384 undergraduate students, found no significant relationship (p-value = 0.250) between mobile device usage and academic performance.

5. Conclusıon and recommendatıons

The current study investigated the relationship between MDs learning related usage and academic performance of the 2nd and 3rd year undergraduate students at SUA. Students' usage of MDs was characterized by both, learning-related and non-learning related activities. However, the findings revealed learning related uses on MDs to dominate and overweigh that of non-learning uses with the most use being accessing educational materials. Despite of learning related use overweigh its counterpart, it was found that students' academic performance is independent of the MDs learning related usage. Trend of students utilizing MDs more for learning related activities indicated a responsible and purposeful approach to technology integration in learning. Also, as non-learning usage found to be of less prevalence, this suggests that students were able to balance learning activities and non-learning. Based on the findings of this study, it is recommended for policy makers should plan university courses that are blended so that they cope with the students' digital characteristics. Additionally, educators should adapt online activities for students learning so that they can maximize their MDs uses for learning related activities.   Moreover, it is recommended future research could investigate the factors that may influence the relationship between MD usage and students' academic performance while considering confounding variables like students' intelligence quotient.

Study limitations - Since both mobile device usage and GPA were self-reported, there's a possibility of bias or inaccurate reporting due to students overestimate or underestimate their academic performance or device usage, which can affect the accuracy of the findings.   Also, the study was conducted via an online questionnaire, and the response rate may reflect only those students who are more tech-savvy or engaged in academic activities. This could introduce a non-response bias, as students who are less engaged may have been underrepresented. Finally, the study was limited to second- and third-year students from two specific campuses of SUA. As such, the findings may not be generalizable to other year groups, campuses, or universities with different demographic characteristics or academic environments.

6. References

Abbas, N., Ashiq, U., Hassan, S. M., & Alam, M. (2020). An Empirical Approach to Study Smartphones' Usage in Academic Performance of University Students. *Review of Applied Management and Social Sciences*, *3*(2), 279–286. https://doi.org/10.47067/ramss.v3i2.61

Abdulkadir, A., & Maifata, N. M. (2018). Use of mobile phones among students of Ahmadu Bello University, Zaria, Nigeria. *Information Impact: Journal of Information and Knowledge Management*, *8*(4), 99–107. https://doi.org/10.4314/iijikm.v8i4.8

Adekeye, A., & Paulina, E. (2019). Applicability of sampling techniques in social sciences. *Net Journal of Social Sciences*, *7*(4), 101–108. https://doi.org/10.30918/njss.74.19.028

Ahmad, N. (2017). Exploring Mobile Phone Usage at Higher Education: A Case Study of Kampala University, Uganda. *International Journal of Computer Applications*, *174*(2), 33–36. https://doi.org/10.5120/ijca2017915331

Albert, A., Netto, N., Pawar, N., Patel, F., Ramesh, S., & Mistry, M. (2020). Relationship of smartphone usage and academic performance among undergraduate students – A systematic review. *Indian Journal of Forensic Medicine and Toxicology*, *14*(4), 3567–3570. https://doi.org/10.37506/ijfmt.v14i4.12181

Alfawareh, H., & Jusoh, S. (2014). Smartphones usage among university students: Najran University case. *International Journal of Academic Research*, *6*(2), 321–326. https://doi.org/10.7813/2075-4124.2014/6-2/b.48

Ally, M., & Wark, N. (2018). Online Student Use of Mobile Devices for Learning. *World Conference on Mobile and Contextual Learning*, *June*, 8–13.

Amez, S., & Baert, S. (2020). Smartphone use and academic performance: A literature review. *International Journal of Educational Research*, *103*(May). https://doi.org/10.1016/j.ijer.2020.101618

Amez, S., Vujić, S., De Marez, L., & Baert, S. (2023). Smartphone use and academic performance: First evidence from longitudinal data. *New Media and Society*, *25*(3), 584–608. https://doi.org/10.1177/14614448211012374

Ataş, A. H., & Çelik, B. (2019). Smartphone Use of University Students: Patterns, Purposes, and Situations. *Malaysian Online Journal of Educational Technology*, *7*(2), 54–70. https://doi.org/10.17220/mojet.2019.02.004

Bikumalla, P., Pratap, K., Padma, Tm., Kalyan, Vs., Vineela, P., & Chandra Varma, Ls. (2017). Is smartphone a tool for learning purpose? - A survey among students of a dental college in Telangana state. *Journal of Indian Association of Public Health Dentistry*, *15*(4), 373. https://doi.org/10.4103/jiaphd.jiaphd_67_17

Chen, L., Chen, P., & Lin, Z. (2020). Artificial Intelligence in Education: A Review. *IEEE Access*, *8*, 75264–75278. https://doi.org/10.1109/ACCESS.2020.2988510

Cowling, N. (2024). Number of mobile phone connections in Tanzania 2016-2024. Accessed on 4th January 2024 at https://www.statista.com/aboutus/our-research-commitment/3664/natalie-cowling

Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, *49*(1), 5–22. https://doi.org/10.1177/0047239520934018

Elliott, R. (2023). The Demographics of Student Device Ownership: An Examination of the Personal Computing Ecosystems of Students in Higher Education. *Journal of Educational Technology & Society*, *26*(3), 129–140. https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=164733116&site=ehost-live

Essel, H. B., Nunoo, F. K. N., Tachie-Menson, A., & Amankwa, J. O. (2018). Higher education students' ownership and usage of smart phones and tablets: the case of Kwame Nkrumah University of Science and Technology (KNUST). International Journal of Educational Technology, 5(1), 20-28. *International Journal of Educational Technology*, *5*(1), 20–28.

Fateme Ebrahimi, S., & Khezerlak, A. G. (2015). Comparative Study of Information and Communication Technology Development Strategies in Primary Education of America, Australia and Iran. *International Journal of Basic Sciences & Applied Research*, *4*(1), 1–5. http://www.isicenter.org

Foen, S., Che-Hassan, Nor Syamimi Iliani, Mohammad-Nor, N. H., & Abdul-Malek, N. A. (2017). The

Relationship between Smartphone Use, Symptoms of Depression, Symptoms of Anxiety, and Academic Performance in College Students. *Malaysian Online Journal of Educational Technology*, *5*(4), 72. http://www.mojet.net/frontend//articles/pdf/v5i4/v05i04-05pdf.pdf

Gikas, J., & Grant, M. M. (2013). Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. *Internet and Higher Education*, *19*(October 2013), 18–26. https://doi.org/10.1016/j.iheduc.2013.06.002

Imran, A., Fazal, A., Tanvir, S., Zafar, S., Tariq, N., & Tariq, S. (2023). Effects of Smartphone on Physical Activity and Academic Performance of Medical Undergraduates of Islamabad: A cross-sectional Study. *Journal of University Medical and Dental College*, *14*(2), 606–611. https://doi.org/10.37723/jumdc.v14i2.765

ITU. (2017). *Facts and 2017 figures*. 8.

Joy, J., & Lacificar, R. (2018). Smartphone Usage and Academic Performance of College Students. *Abstract Proceedings International Scholars Conference*, *6*(1), 238. https://jurnal.unai.edu/index.php/isc/article/view/1156

Kacetl, J., & Klímová, B. (2019). Use of smartphone applications in english language learning—A challenge for foreign language education. *Education Sciences*, *9*(3), 1–9. https://doi.org/10.3390/educsci9030179

Kaliisa, R., Palmer, E., & Miller, J. (2019). Mobile learning in higher education: A comparative analysis of developed and developing country contexts. *British Journal of Educational Technology*, *50*(2), 546–561. https://doi.org/10.1111/bjet.12583

Kavuta, K. D. (2018). Smartphone usage in higher learning institutions. *International Journal of Science and Research*, *7*(1), 304–309. https://doi.org/10.21275/ART20179244

Kaysi, F., Yavuz, M., & Aydemir, E. (2021). Investigation of University Students' Smartphone Usage Levels and Effects. *International Journal of Technology in Education and Science*, *5*(3), 411–426. https://doi.org/10.46328/ijtes.235

Kibona, L., & Rugina, J. M. (2015). A review on the impact of smartphones on academic performance of students in higher learning institutions in Tanzania. *Journal of Multidisciplinary Engineering Science and Technology (JMEST),* 2(4), 673-677.

Lamptey, H. K., & Boateng, R. (2017). Mobile Learning in Developing Countries : A Synthesis of the Past to Define the Future. *World Academy of Science, Engineering and Technology, International Journal of Educational and Pedagogical Sciences*, *11*(2), 443–450.

Lepp, A., Barkley, J. E., & Karpinski, A. C. (2015). The relationship between cell phone use and academic performance in a sample of U.S. college students. *SAGE Open*, *5*(1). https://doi.org/10.1177/2158244015573169

Mahenge, M. P. J., & Sanga, C. (2016). ICT for e-learning in three higher education institutions in Tanzania. *Knowledge Management and E-Learning*, *8*(1), 200–212. https://doi.org/10.34105/j.kmel.2016.08.013

Mfaume, H., Bilinga, M., & Mgaya, R. (2018). From paper and pencil to mobile phone photo notes-taking among Tanzanian university students: extent, motives and impact on learning. *International Journal of Education and Development using ICT,* 14(2), 83-98.

Mwabungulu, E., & Mungwabi, H. (2017). The Impact of Smart-phones Usage on Third-Year Undergraduates in Tanzania: A Case of the University of Dar es Salaam. *University of Dar Es Salaam Library Journal*, *12*(1), 87–105.

Mwalukasa, N. (2022). Mobile phones in enhancing education: Factors influencing their Phones Use in Accessing Academic Information in Tanzania. *Qualitative & Quantitative Methods in Libraries*, *11*(2), 229–248.

Nalaila, S., Wawire, V., & Gathara, P. M. (2022). Students' Classroom Use of Information and Communication Technologies: Implication on their Digital Literacy Skills in Tanzanian Universities. *Msingi Journal*, *6*(1), 108–125. https://doi.org/10.33886/mj.v6i1.279

Nikolopoulou, K. (2022). Students' Mobile Phone Practices for Academic Purposes: Strengthening Post-Pandemic University Digitalization. *Sustainability (Switzerland)*, *14*(22). https://doi.org/10.3390/su142214958

Nikolopoulou, K., Saltas, V., & Tsiantos, V. (2023). Postgraduate Students' Perspectives on Mobile Technology Benefits and Learning Possibilities: Insights from Greek Students. *Trends in Higher Education*, *2*(1), 140–151. https://doi.org/10.3390/higheredu2010009

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment and Evaluation in Higher Education*, *33*(3), 301–314. https://doi.org/10.1080/02602930701293231

Olaniyi, A. A. (2019). Application of Likert Scale's Type and Cronbach's Alpha Analysis in an Airport Perception Study. *Scholar Journal of Applied Sciences and Research*, *2*(4), 1–5. https://innovationinfo.org/articles/SJASR/SJASR-4-223.pdf

Pattermann, J., Pammer, M., & Schlögl, S. (2022). Education sciences perceptions of digital device use and accompanying digital interruptions in blended learning. *Educ. Sci.(12),* 215. https://doi.org/10.3390/educ sci12030215.

Phillips, J. (2024). Relationship between Smartphone Usage Patterns and Academic Performance among College Students Relationship between Smartphone Usage Patterns and Academic Performance among College Students. *European Journal of Technology*, *8*(4), 1–12.

Ramadhani, A. (2018). OWNERSHIP AND USES OF SMART PHONES IN ACCESSING ONLINE Materials by University Students: Comprehensive Study from Moshi Cooperative University. *Journal of Co-Operative and Business Studies (JCBS)*, *1*(1), 60–66. https://mocu.ac.tz/wp-content/uploads/2019/12/PAPER-5-ABSWAID-MFANGA.pdf

Rockey, A., Cohn, J., & Eastman, S. (2023). Reducing Access Barriers: Exploring Student Smartphone Use Across Higher Education Institutions. *Journal of Educational Research and Practice*, *13*(1), 285–303. https://doi.org/10.5590/jerap.2023.13.1.20

Santhi, V., & B.Rajesh. (2020). Impact of Smartphone Usage on the Academic Performance among Medical Students. *Journal of Evolution of Medical and Dental Sciences*, *9*(02), 105–110. https://doi.org/10.14260/jemds/2020/23

Sserunkuuma, J., Kaggwa, M. M., Muwanguzi, M., Najjuka, S. M., Murungi, N., Kajjimu, J., Mulungi, J., Kihumuro, R. B., Mamun, M. A., Griffiths, M. D., & Ashaba, S. (2023). Problematic use of the internet, smartphones, and social media among medical students and relationship with depression: An exploratory study. *PLoS ONE*, *18*(5 May), 1–22. https://doi.org/10.1371/journal.pone.0286424

Surjandy, & Julisar. (2017). Do College Students use E-Book with Smartphone? (Study for College Student's Subject in Information Technology). *Lecture Notes in Engineering and Computer Science*, *2228*, 600–603.

Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, *48*(6), 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Taiwo, S. O., Chinaza, U., & Magigaba, M. (2023). Learning Impact(s) of Smartphones on South African Rural University Students. *Journal of Research in Higher Education*, *7*(2), 114–128. https://doi.org/10.24193/jrhe.2023.2.5

Van Mol, C. (2017). Improving web survey efficiency: the impact of an extra reminder and reminder content on web survey response. *International Journal of Social Research Methodology*, *20*(4), 317–327. https://doi.org/10.1080/13645579.2016.1185255

Wang, Z., Qadir, A., Asmat, A., Aslam Mian, M. S., & Luo, X. (2022). The Advent of Coronavirus Disease 2019 and the Impact of Mobile Learning on Student Learning Performance: The Mediating Role of Student Learning Behavior. *Frontiers in Psychology*, *12*(February), 1–16. https://doi.org/10.3389/fpsyg.2021.796298

Winskel, H., Kim, T. H., Kardash, L., & Belic, I. (2019). Smartphone use and study behavior: A Korean and Australian comparison. *Heliyon*, *5*(7), e02158. https://doi.org/10.1016/j.heliyon.2019.e02158

Zogheib, B., & Daniela, L. (2022). Students' Perception of Cell Phones Effect on their Academic Performance: A Latvian and a Middle Eastern University Cases. *Technology, Knowledge and Learning*, *27*(4), 1115–1131. https://doi.org/10.1007/s10758-021-09515-4

YouTube Kids Channel: A modern way of babysitting and its impact on children's behavior

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Abstract

This paper is a qualitative phenomenological study that focuses on capturing the essence of parents' lived experiences with the use of the YouTube Kids Channel on babysitting and its impact on children's behavior. A total of eight (8) parents of children aged three to seven years old participated in the study. The data were analyzed through coding and defining related themes that emerged through the participants' responses. Data collection involved a virtual interview with the participants. The findings revealed that parents use the YouTube Kids Channel as an educational tool, an entertainment tool, and a safe activity for their children. Findings also revealed that it has a negative impact on children's behavior. Children imitate the inappropriate words and languages of the characters they have watched on the Youtube Kids Channel. Lastly, this study recommends having an in-depth analysis and exploration of how Youtube Kids Channel affects children's communication skills.

Keywords: YouTube Kids Channel, children, educational, entertainment, behavior

YouTube Kids Channel: A modern way of babysitting and its impact on children's behavior

1. Introduction

In this current generation, children begin to use screen media at an early age (Imaniah et al., 2020). Previously, parents' most common screen medium to entertain their children was television, but as technology advanced, new platforms such as Youtube emerged. YouTube is a free video-sharing website that makes it simple to watch videos online. Anyone can even make and upload their own videos to share with others. Moreover, when compared to other types of screen media, YouTube has become one of the most popular internet platforms among young children (Neumann & Herodotou, 2020). Consequently, YouTube created a unique platform for young children called the YouTube Kids App in 2015 to provide a safer viewing experience for kids. According to the Socialblade.com analysis, there are numerous YouTube Kids channels, including Cocomelon Nursery Rhymes, which has a total of 76.7 million subscribers with 513 videos. Chu-chu TV, a channel with 352 video posts, consists of 32.8 million followers (Imaniah et al., 2020). The video content of these channels attracts children because of their human-talking songs and different scenes (Lozano-Blasco et al., 2021).

YouTube Kids influence the lives of infants, toddlers, preschoolers, and parents (Imaniah et al., 2020). Parents exposed their children to touchscreen devices daily (Seo & Lee, 2017). Screen media is used by 83% of children aged 6 months to 6 years for an average of 2 hours per day (Imaniah et al., 2020). However, in a different study, children use mobile phones for about 3-4 hours per day, while some children use mobile phones for more than 5-6 hours per day on average (Siddiqui, 2019). In addition, the current outbreak of COVID-19 has increased children's engagement on the YouTube Kids channel. During this health crisis, YouTube has been structured as a useful ally to help offset the absence of outdoor play, attempting to protect the mental health of young children (Lozano-Blasco et al., 2021).

Furthermore, in an age of mobile technology, algorithms are now an interstitial part of parenting. Algorithms can act as a second parent, shaping a child's viewing habits and instructing infant consumption both directly and indirectly. Tablets and smart devices are recognized to be a part of parenting as they entertain babies and toddlers (Burroughs, 2017). Parents also agreed that touchscreen devices were often used as babysitters. When doing housework, they give their children devices to keep them calm; hence, it becomes a digital pacifier or shut-up toy to keep children entertained (Elias & Sulkin, 2017). In this case, parents utilized B.F. Skinner's operant conditioning in dealing with their children. When positive or negative reinforcement is used to strengthen or weaken a behavior, this is referred to as operant conditioning. Furthermore, it demonstrates how three different types of responses that affect behavior—positive, negative, and punishment—influence behavior (Gaymon, 2015). In addition, most parents consider the Youtube Kids channel a valuable resource for teaching new rhymes, songs, and words (Lozano-Blasco et al., 2021). On the other hand, children are likely to mimic the behaviors of the role models they observe. According to Bandura's theory, YouTubers can be viewed as symbolic models. A study on the impact of media on children backed up this theory. The study found that long exposure to violent and aggressive video content impacted children's behavior, cognition, and emotions. Many studies have also discovered that these effects can be mediated by a number of factors, including the fact that children are more likely to imitate behavior when the character is realistic, identical to the child, acquires praise and encouragement, and the act can be modeled by the child (Neumann & Herodotou, 2020).

YouTube Kids Channels were believed to improve young children's communication skills, primarily by enhancing their English language skills. However, in-depth analysis of children's communication skills and behavioral changes is severely limited in this study (Imaniah et al., 2020). Similarly, Izci et al. (2019) reported that there is limited information on how YouTube and the YouTube Kids channel influence children's learning and development during the early childhood years; thus, there is a need for research on children's increasing use

of these platforms. In order to address these gaps, the present study was conducted to shed light on the impact of the YouTube Kids channel on other aspects of children's lives, such as their behavior.

2. Review of Related Literature

Toddlerhood, even more than infancy, is a difficult time for parents. Because of the daily challenges that they face, they regularly use screen media as part of their parenting practices (Elias & Sulkin, 2017). Screen media parenting practices are viewed as a set of parental behaviors or interactions with their child that impact the latter's screen media use (Samaha & Hawi, 2017). As a result, touchscreens have emerged as the new "playmate, teacher, and babysitter" for very young children, either at home or outside (Elias & Sulkin, 2017). When a parent is physically absent or preoccupied with other tasks, media can be used as a "babysitter" to keep the child occupied. The 'babysitter' form of use within the social parent-child relationship is likely less concerned with the parent's own emotional needs and more with practical demands: the child must be occupied so that the parent can do his or her own responsibilities (Nikken, 2018).

This finding is also supported in the study of Siddiqui (2019) that one of the primary reasons for this massive viewership of YouTube videos is mothers' escapism. Mothers' lives are so hectic these days that it is nearly impossible for them to interact with and keep their children physically occupied. The majority of mothers noted that they give their children mobile phones when they are busy elsewhere or when the child requests that they play and talk to them. It is simple for mothers to put a phone in their children's hands and keep them occupied. Furthermore, nowadays they consider watching videos to be a more reliable and safe activity for their children due to factors such as unsafe outdoor environments, heavy traffic on roads, and the fear of being exploited by strangers.

It is also noted in the study of Nikken (2018) that media tools can first act as a 'distractor,' or relaxing aid for the kid, allowing the parent to rest. The use of media as a distraction appears to be more geared toward the demands of the parents. The assumption that their child would become more socially adapted and will fit in with other children as a result of their media use may inspire these parents to utilize media as a distraction and gain additional time for themselves. Additionally, the media can influence a child's conduct. However, this form of use is not limited to rewarding; it also includes the use of media as a punishment. Some parents believe that withholding or offering media devices as a reward or punishment for their child might have a positive effect (Nikken, 2018).

According to statistics, children's homes in 2019 are becoming more connected, and smart technology is becoming more common. Each child used a mobile device, and the majority of them began using them before the age of one (Yasaroglu & Boylu, 2020). Similarly, children below the age of six months are exposed to YouTube videos. Children appear to be drawn to music videos before they reach the mark of their first birthday (Izci et al., 2019). It is also found in the study of Seo & Lee (2017) that children's use of new media has increased over the years; before the age of two, most children use a mobile device daily and spend a significant amount of time in front of a screen. These young children enjoy touching the screen and holding the devices (Lozano-Blasco et al., 2021). They were not only capable of playing the videos, but they were also equipped at moving from one video to the next on the playlist (Izci et al., 2019). Moreover, screen time has become the norm for infants and toddlers. According to current estimates, children under the age of 24 months watch screen media for about 1-2 hours on a typical day, while children aged 2-5 years watch for more than three hours (Elias & Sulkin, 2017).

YouTube has identified itself as a tool for early childhood development, for it encourages the reinforcement of behaviors (Lozano-Blasco et al., 2021). Clearly, YouTube is a form of screen time, and children use it to observe the behavior of others. Depending on the quality of the videos and images displayed on the screen, this behavior has the potential to positively or negatively impact learning (Neumann & Herodotou, 2020). Almost every child who watches YouTube has a positive impact on their learning skills, basic education, English

language, and knowledge of the world's new inventions. They've all gained valuable knowledge from YouTube. They benefit from watching educational videos because they can independently learn different languages. The majority of the children received their preschool education through the use of YouTube videos (Siddiqui, 2019). It is also revealed in the study by Kanozia (2019) that the majority of parents believe that moral lessons in YouTube Kids Videos are understood by their children. However, a huge number of parents stated that their children require their assistance in order to exhibit good moral behavior such as cleanliness, helpfulness, and so on. As a result, parents now believe that prosocial videos have a moderate effect on children's moral development. This study discovered that the majority of parents mentioned that their child performs actions while watching YouTube Kids Videos. Furthermore, children devote time to physical activities. The activeness level of most children after watching YouTube Kids Videos for an extended period of time ranges from moderate to super active.

On the other hand, some children experienced negative effects such as aggressive and violent behavior, imitation of negative characters, short attention span, fear, health issues, and sleep deprivation (Siddiqui, 2019). YouTube videos have an impact to a certain point on instigating violent behavior in every fourth child and fueling their desire for products featured in video content (Kanozia, 2019). The luxuries and expensive toys depicted in those videos are out of reach for their parents, but as they acknowledge them, they demand them from their mothers (Siddiqui, 2019).

Parents were also concerned about the psychological issues, physical effects, and cognitive development brought by screen media. First, psychological effects were primarily associated with children's obsessive usage of touchscreen media. Parents were concerned about their children's preoccupation with touchscreen devices, which they believed would negatively impact the child's personality. Second, mothers were worried about the physical effects on children's vision and posture. When compared to traditional media with larger screens, parents' anxiety about the smartphone and its smaller screen increased. Finally, they believed that passively viewing content on touchscreens would impair their children's cognitive development. Despite the fact that interactivity was regarded as one of the most important characteristics of touchscreen devices, they stated that the interaction occurred only when their children were selecting content from recommendations, and the passiveness of simply staring at the screens dominated the majority of the time. They also believed that their children's passiveness will result in a lack of creativity and intelligence (Seo & Lee, 2017). Furthermore, children aged 2 to 6 years old prefer to spend their free time watching YouTube videos. They are much less willing to engage in painting, toy play, and going outside to play. They are so attached to this device that when their mothers ask them to return it, they cry and rebel. When children use their phones, they are primarily engaged in YouTube viewing. They are so obsessed with scrolling and playing videos that they prefer it above any other activity (Siddiqui, 2019).

In summary, toddlerhood presents significant challenges for parents, leading many to incorporate screen media into their parenting practices. These practices, which include behaviors and interactions that influence a child's screen media use, have made touchscreens a common "playmate, teacher, and babysitter" for young children. When parents are busy or absent, media serves as a convenient way to keep children occupied, addressing practical needs rather than emotional ones. Studies highlight that mothers often resort to giving their children mobile phones due to their hectic schedules and the perceived safety of indoor activities compared to outdoor risks. Media tools also act as distractors, allowing parents to rest or manage other tasks. Some parents use media as a reward or punishment, believing it can positively influence their child's behavior.

3.   Theoretical Framework

This study is based on Albert Bandura's Social Cognitive Theory and B.F. Skinner's Operant Conditioning Theory. Social Cognitive Theory indicates that children can learn through observational learning, in which they imitate specific behaviors modeled by adults and peers (Neumann & Herodotou, 2020). Learning directly from models is more efficient than other methods. Modeling serves a variety of purposes, including tutoring,

motivators, inhibitors, dis-inhibitors, social prompters, emotion arousers, and shapers of values and reality conceptions. As children observe their role models, they are more likely to emulate them. As a result, the behavior of role models becomes effective (Yasaroglu & Boylu, 2020). They adopt behaviors in their young, healthy minds that eventually turn out to be their permanent behaviors. For instance, they have learned to fight in the same way by imitating violent characters. They are also extremely aggressive and hyperactive (Siddiqui, 2019).

Along with this is the operant conditioning theory, in which the behavior is strengthened or weakened by positive or negative reinforcement. Negative reinforcement encourages behavior by removing a negative stimulus. When parents give their child a screen (behavior) and the kid stops crying or behaving in a disruptive manner (unpleasant stimuli), the parent's provision of the screen (behavior) is reinforced. This indicates that the parent will offer their child a screen in the future to keep them from crying or being noisy and disruptive. On the other hand, positive reinforcement encourages good behavior. Giving a child a screen (natural reward) in response to their weeping promotes their usage of crying to get screen time. As a result, the child will be more prone to cry or be disruptive in the future. Both the parent and the child are rewarded for their individual actions in this exchange, causing the interaction to repeat itself with increasing intensity (Cepni et al., 2020). Given these frameworks, it is hypothesized that children learn certain things and imitate behaviors that they see and observe in screen media like YouTube Kids. Furthermore, children's usage of digital media reinforces their behavior.

Research Question - Taking the observation above into account, the current study seeks to investigate the behavioral changes caused by the Youtube Kids channel while addressing the following research questions.

1. What are the factors that contribute to the engagement of children on the Youtube Kids Channel?

2. What impact does the daily watching of Youtube videos have on children's behavior?

3. How have parents dealt with the various behavioral changes that happen to their children?

Scope and Delimitation - The goal of this study is to discover the impact of the YouTube Kids channel on children aged 3 to 5 years old, with a specific focus on investigating behavioral changes caused by watching YouTube Kids videos and how parents deal with those behavioral changes. This study will also identify and evaluate the factors associated with children's increased use of the YouTube Kids channel. Furthermore, this study also seeks to determine the use of the YouTube Kids channel on babysitting. This paper, however, does not address the impact of YouTube Kids on language development.

4. Methodology

Research Design - The qualitative research paradigm includes phenomenological methods. Complex issues such as family relationships, parent demands, and distinctive cultural or familial attitudes are best measured through qualitative research. This research applied a phenomenological approach. Phenomenological studies allow in-depth exploration of research issues as well as the gathering of data needed to capture both individuals' lived experiences and the essences of these phenomena (Barrow, 2017). Given the goal of capturing the essence of parents' lived experiences with the use of the YouTube Kids Channel on babysitting and its impact on children's behavior, the descriptive phenomenological approach was used in this study. The primary goal of the research was to identify the meaning of an individual's lived experiences or to extract meaning from their daily life (Vagle, 2014).

Research Site - This study delves into the use of the YouTube Kids Channel as a modern tool for babysitting, examining the behavioral changes it has prompted among children. Recognizing the importance of safety during the COVID-19 pandemic, the researcher chose her hometown, Magallanes, Cavite, as the research site. This decision ensured a controlled environment while adhering to health protocols. To gather comprehensive data, participants were interviewed through virtual platforms such as Zoom and Google Meet, allowing for in-depth

discussions despite physical distancing measures. The study aims to provide insights into how digital media influences child development and parenting practices in contemporary settings.

Selection Criteria and Participants - Purposive sampling was used by the researcher to achieve the study's objectives. It is purposefully based on the characteristics of the participants that best suit the researcher's goal (Judith, 2021). Eight individuals were chosen to participate in the study. Due to the current circumstances, the researcher utilized social media platforms such as Facebook, Instagram, and email to invite participants. The selected participants met the established criteria: they were parents of young children aged three to seven years old who watched at least three hours of YouTube Kids content daily. Parents of children younger than two years old or older than six years old, or whose children watched less than two hours of YouTube Kids videos per day, were excluded from the study.

Research Instrument - The researcher conducted a semi-structured interview, which served as a framework to gain a thorough understanding and exploration of the participant's experiences, thoughts, and opinions regarding the impact of the YouTube Kids Channel on children's behavior and how it is used as a way of babysitting. The researcher formulated five open-ended questions, which allowed the respondents to have more freedom and flexibility when providing answers. The interview lasted between sixty and ninety minutes. The researcher recorded the interview and used pen and paper to jot down important observations as the interview progressed.

Data Collection Procedure - The research process began with briefing individuals who showed interest in participating in the study before conducting interviews. Participants were selected based on specific criteria. The researcher recruited participants through social media platforms such as Facebook, Twitter, and Instagram. Interested individuals were screened, and those who met the criteria received an appointment form and informed consent via email. This informed consent was thoroughly discussed during the interview to ensure participants were fully aware of the study's scope and their rights. On the day of the interview, the researcher initiated the session with preliminary questions to establish rapport and make participants comfortable. This was followed by a detailed review of the informed consent. The main part of the interview involved a semi-structured inquiry designed to elicit the lived experiences of parents whose children are exposed to YouTube Kids content. The researcher asked follow-up questions to gain a deeper understanding of the participants' experiences and perspectives. Participants were informed that the interview would be recorded, but only with their explicit consent. They were assured that the recordings would be transcribed and then discarded to maintain confidentiality and safety. Additionally, the collected data and semi-structured questions were validated and translated into the participants' preferred language to ensure clarity and accuracy. This comprehensive approach aimed to capture the experiences of parents in the digital age, providing valuable insights into the impact of YouTube Kids on babysitting.

Data Analysis - The information gathered from the respondents through interviews were analyzed using Braun and Clarke thematic analysis. In this process, the researcher began by reading and rereading the interview transcripts in order to be familiarized with the data. Through identifying relevant data, initial codes were generated. These codes were combined and examined to determine patterns that would emerge into a larger theme. For the theme "Positive Outcomes of Accessing the YouTube Kids Channel," codes such as "entertainment," "education," and "parental control" were grouped into sub-themes like "Educational Tool," "Entertainment Tool," and "Safety Tool." This theme highlighted the various benefits that children and parents derive from using the YouTube Kids Channel, including educational content, entertainment, and a safe viewing environment. On the other hand, the theme, "Negative Behavioral Outcomes of Using the YouTube Kids Channel," was generated from the codes such as "imitating appropriate words and behavior" and "behavioral guidance by parents." This theme addressed the potential negative impacts of using the channel, such as children imitating inappropriate behavior they might encounter and the need for parental guidance to mitigate these effects.

Role of the Researcher - The researcher is committed to upholding the strongest ethical guidelines. These standards include those of integrity, responsibility, competence, and credibility. The researcher is also committed to honoring and sympathizing with the participants she worked with. Furthermore, the researcher is dedicated to a methodological paradigm that separates phenomena and their meaning from the researcher's and participants' assumptions when she chose phenomenology. She engaged in activities that gave her the chance to engage with the data collection and analysis from a range of viewpoints; however, she made the conscious choice to remain open to findings that went against her preconceived notions.

Methods of Validation - For the validation process, a comprehensive questionnaire was developed. The semi-structured interview was meticulously validated by three experts in the field to ensure its reliability and relevance. Additionally, the interview was translated into a language that the study participants could easily understand and feel comfortable with, enhancing the accuracy and depth of the responses. The validation process was crucial in ensuring that the data collected was both credible and meaningful. By involving experts and translating the interview, the researcher aimed to eliminate any potential biases and ensure that the participants' true experiences were accurately captured. The detailed observations during the interviews further enriched the data, allowing for a deeper analysis of the behavioral and emotional aspects of children's interactions with YouTube Kids content. This thorough approach not only strengthened the validity of the study but also provided valuable insights into the complex dynamics of digital media consumption among young children and its impact on parenting practices. The expert validation ensured that the study's findings were robust and reflective of the participants' lived experiences.

Ethical Consideration - Prior to conducting an interview, respondents were provided informed consent by explaining the purpose of the study and how they will benefit from it. The confidentiality of the data collected from participants was preserved, and it was only utilized for the period of the study, after which it was deleted. The length of the study and how it will be done were disclosed to the participants. As a result, participants were notified of their right to refuse participation in the study and to withdraw at any time. The researcher guaranteed that the information received from the participants is balanced and reliable. The research adviser and research panels examined and validated the semi-structured interview questions to ensure that the participants are not put in any uncomfortable situations. The participants were informed about the possibilities that may emerge during the interview.

5.   Results and Discussion

The findings of the study, which were attained through the conduct of the investigation, are presented in this chapter. Relevant literature was compared to and used to support the discussion of the results.

5.1 Findings

The study involved interviewing eight parents of children who were engaged in the Youtube Kids Channel. Two main themes and five sub-themes emerged from the semi-structured interviews.

Theme 1: Positive Outcomes of Accessing the Youtube Kids Channel

Youtube Kids Channel as an Educational Tool. Parents described the YouTube Kids Channel as an educational tool. They engaged their children in this channel because it could promote brain development and allow their children to learn basic knowledge such as the alphabet, colors, shapes, arithmetic, and so on. Children acquired skills that are necessary for early learning. Furthermore, children could learn the English language and good manners through the YouTube Kids Channel. Therefore, parents regarded it as an educational platform that could help their children develop their intelligence and behavior. The participants shared:

P1: Our reason why we want him to watch the Youtube Kids Channel is for him to speak English and learn proper manners, like behavioral actions like saying please excuse me and always asking if that thing or food is ok.

P2: Ano kasi karaniwan ng channel hindi man Filipino mga Englishero at Englishera. Lagi sila kapag nakikipag-usap ibang lenggwahe. Yung anak ko kunwari sa pagdadance, kunwari ballerina raw siya ganiyan tapos kung ano nga yung character na napapanood niya, mahilig kasi siya sa mga kikay-kikay, nagba-ballerina ganiyan, nagmemakeup. Kung ano yung ginagawa ng bata sa YT. [Typically, on certain channels, if the content wasn't in Filipino, the characters spoke in English, which helped the children practice conversing in English. Additionally, my child enjoyed dancing and would often tell me she was a ballerina, imitating the dance moves she saw. She also developed an interest in girly things and makeup.]

P5: Para malaman niya ang mga alphabet, shape, animal, and color. Para matuto siya at malibang kapag may ginagawa ako. [For him to learn the alphabet, shape, animal, and color. So he could also learn and be entertained while I was doing something.]

Youtube Kids Channel as an Entertainment Tool. Parents also described the YouTube Kids Channel as an entertainment tool. They allowed their children to watch videos from the YouTube Kids Channel while doing household chores so that they could not disturb them while they were busy. It served as the child's playmate or babysitter while the parents were busy doing household chores. This could keep them entertained and keep them from crying or looking for their parents.

P7: Para malibang ang mga bata habang ako ay gumagawa ng gawaing bahay dahil madalas kami lang tatlo ang magkasama. [So that the kids would be entertained while I was doing the household chores because usually it was just the three of us at home.]

P8: Okay, so number one reason kapag may ginagawa kaming parehas kasi tulad ko sa trabaho ko kasi syempre alam mo naman pagdating dito sa bahay trabaho pa rin at lalo na kapag kailangang kailangan na talaga na so wala akong choice kundi manood siya para at least meron akong time para makapag focus. So yun..yun ang dahilan tapos ganun din yung husband ko. [Okay, so the number one reason was that when both of us were doing something, because just like in my job, you know, when I got home I still had to work, especially when it's really urgent, that's why I didn't have a choice but to let her watch so I could at least have time to focus. So that's the reason, and the same goes with my husband.]

Youtube Kids Channel as a Safety Tool. One of the parents also noted YouTube Kids Channel as a safety tool for keeping their children indoors and away from COVID-19 exposure. The parents use the YouTube Kids channel to protect their child from being exposed to COVID 19.

P6: "Syempre unang una lalo na't nitong nagpandemic hindi pwedeng lumabas, bawal sila ma-expose so yun yung unang rason ko kung bakit pinayagan ko siyang manood sa YT Kids. Pangalawa, panlibang niya na rin kesa mas gumamit siya...mas...para sakin mas..gusto ko pa siyang manood sa YT Kids kaysa gumamit ng Ipad or cellphone." [Of course, first of all, due to the pandemic, we were not allowed to go out, especially the kids. They were not allowed to be exposed, so that's the first reason why I let her watch the YouTube Kids Channel. Second, to be entertained. I preferred her watching the YouTube Kids Channel instead of using her iPad or cellphone.]

In summary, YouTube Kids Channel is beneficial for both parents and children as it has various purposes. Parents perceive the YouTube Kids Channel as a multifaceted tool. They use it educationally to promote brain development and teach basic knowledge such as the alphabet, colors, shapes, arithmetic, English language skills,

and good manners. It also serves as an entertainment tool, keeping children occupied and entertained while parents handle household chores, acting as a playmate or babysitter. Additionally, during the COVID-19 pandemic, parents have relied on it as a safety tool to keep their children indoors and away from potential virus exposure.

Theme 2: Negative Behavioral Outcomes of Using the Youtube Kids Channel

Imitating inappropriate Words and Behavior. Children also imitated the inappropriate behaviors and bad expressions of the characters they saw on the YouTube Kids Channel. They also learned words that were strictly for adults only. There were different characters that can be watched in the Youtube Kids Channel, and some of them portrayed bad attitudes, which can be imitated by the child who was watching.

> *P5: Ang hindi ko nagustuhan is yung ibang language naa-adapt niya. Tinatama ko naman siya pati yung mga body expressions na naaadapt niya.* [What I was concerned about was the inappropriate language she picked up. I make sure to correct her and address any unsuitable behaviors she has adopted.]

> *P8: Ay grabe meron don kasing video nay un talagang ano eh noong napanood ko siya akala ko okay tapos napansin ko sa kaniya ginagaya niya na. Yun yung alam mo yung pinapanood niyang yun..yung bata na maatittude..eh nagaya niya na kaya sinasabi ko sa kaniya, ayan na naman, ayan na naman ginaya mo na naman yung bad. So yun talagang minsan sinasabi ko na bago ka mag-play ng video diyan ipakita mo muna kay mommy kung ano yung papanoorin mo kasi pag bad hindi pwedeng panoorin."* [There was a video that initially seemed fine when I watched it, but later I noticed she was imitating it. The character she was copying had a bad attitude, so I warned her each time I saw her mimicking it. I also instructed her to show me any video before she played it. If it was inappropriate, she wasn't allowed to watch it.]

Behavioral guidance by parents. The parents were asked to state how they deal with the behavioral changes that happen to their children as a result of watching videos from the Youtube Kids Channel. Parents reported that they do not tolerate their children's inappropriate behavior and bad language. They discipline them properly by explaining that what they did or said was wrong. A participant clearly stated, They teach them the difference between what is good and what is bad. As a result, they don't do it again, and if they happen to see a character acting badly, they look for another video to watch.

> *P6: Para sa words na nacocopy niya dun sa mga pinapanuod nya at nauulit ulit nya at di masyado maganda pakinggan, kinakausap ko sya at ineexplain na yung mga words na yun ay bad at di dapat sinasabi at ginagaya. At para tuluyan nya ng di ulitin, di na lang niya ulit pa-panoorin ang mga ganoong palabas.* [For the inappropriate words that she imitated, I talked to her and explained that those words were bad and should not be repeated. To ensure she wouldn't do it again, I decided she wouldn't watch that content anymore.]

> *P8: Ay grabe meron don kasing video nay un talagang ano eh noong napanood ko siya akala ko okay tapos napansin ko sa kaniya ginagaya niya na. Yun yung alam mo yung pinapanood niyang yun..yung bata na maatittude..eh nagaya niya na kaya sinasabi ko sa kaniya, ayan na naman, ayan na naman ginaya mo na naman yung bad. So yun talagang minsan sinasabi ko na bago ka magplay ng video diyan ipakita mo muna kay mommy kung ano yung papanoorin mo kasi pag bad hindi pwedeng panoorin."* [There was a video that initially seemed fine when I watched it, but later I noticed she was imitating it. The character she was copying had a bad attitude, so I warned her each time I saw her mimicking it. I also instructed her to show me any video before she played it. If it was inappropriate, she wasn't allowed to watch it.]

In conclusion, children often imitate inappropriate behaviors and language from characters they see on the

YouTube Kids Channel, including words meant strictly for adults and bad attitudes. This imitation can be concerning as it may influence their behavior negatively. Parents have observed these changes and reported that they do not tolerate such inappropriate behavior or language. They take disciplinary action by explaining to their children why what they did or said was wrong, emphasizing proper behavior and language use. This guidance helps children understand the difference between acceptable and unacceptable behavior, reinforcing positive conduct.

5.2 Discussion

The emergence of YouTube Kids Channels in this modern era has been a huge help to parents in raising their children. YouTube Kids Channel was used as an educational tool by parents. Children learned basic knowledge such as alphabets, numbers, letters, colors, and shapes through the YouTube Kids Channel. They also cultivated interests and skills in a variety of areas, such as dancing and singing, as well as learning English. According to Sidiqui (2019), almost every child who watches YouTube has a positive impact on their learning skills, basic education, English language, and knowledge of the world's new inventions. They've all gained valuable knowledge from YouTube. They could benefit from watching educational videos because they could independently learn different languages. The majority of the children received their preschool education through the use of YouTube videos.

Moreover, parents also used the YouTube Kids Channel as an entertainment tool. When they were busy with household chores, they allowed their children to watch videos from the Youtube Kids Channel in order for them to be entertained and refrain from crying. As a result, parents could maximize their time by doing other tasks. This finding was supported in the study of Elias & Sulkin (2017), where they state that parents also agreed that touchscreen devices were often used as babysitters. When doing housework, they give their children devices to keep them calm; hence, it becomes a digital pacifier or shut-up toy to keep children entertained. A similar finding is also noted in the study of Nikken (2018), where he stated that when a parent is physically absent or preoccupied with other tasks, media can be used as a "babysitter" to keep the child occupied.

In addition, during this pandemic, the YouTube Kids Channel could help parents keep their children indoors and away from COVID-19 exposure. It is stated in the study of Lozano-Blasco et al. (2021) that the current outbreak of COVID-19 has increased children's engagement on the YouTube Kids channel. During this health crisis, YouTube has been structured as a useful ally to help offset the absence of outdoor play. It was also noted in the study of Sidiqui (2019) that nowadays parents consider watching videos to be a more reliable and safe activity for their children due to factors such as unsafe outdoor environments.

YouTube Kids Channel, on the other hand, has resulted in some behavioral changes in children. It was revealed in this study that the YouTube Kids Channel had a negative impact on children's behavior, such as imitating a bad attitude and using inappropriate language. This was closely related to an article by Sidiqui (2019), which says that some children experienced negative effects such as aggressive and violent behavior and imitation of negative characters. The same findings were also established in the study of Kanozia (2019), wherein YouTube videos have an impact to a certain point on instigating violent behavior in every fourth child. However, on a positive note, parents had established different positive ways of dealing with the behavioral changes that occur in their children. Parents noted that they did not tolerate the violent behavior of their children; instead, they disciplined them in a way that explained to them that what they watched was not suitable for their age. They also choose the right video for their children to watch to avoid contents whose characters portray a bad attitude.

6. Conclusion

Parents allow their children to watch videos from the YouTube Kids Channel for a variety of reasons. Some of them use YouTube Kids Channel as an educational tool, a source of entertainment, or a means of safety. Parents are delighted with the positive impact it has had on their children's knowledge and skill development.

Despite the fact that it has a positive impact on their children's development, they are unable to avoid the behavioral changes that it has caused in their children, including imitating negative behavior. On the bright side, parents were able to deal with and manage their children's negative behavior. This study highlights how the YouTube Kids Channel can serve as a modern babysitting tool and provides insights into the behavioral changes in children resulting from watching its videos. By understanding both the positive and negative effects of the YouTube Kids Channel, parents can better manage their children's screen time. This research offers valuable guidance for parents, helping them utilize the educational and entertainment benefits of the platform while addressing any potential negative impacts on their children's behavior.

7. References

Barrow, D. (2017). A Phenomenological Study of the Lived Experiences. *PDXScholar*.

Burroughs, B. (2017). YouTube Kids: the app economy and Mobile Parenting. *Social Media + Society*, *3*(2). https://doi.org/10.1177/2056305117707189

Cepni , A. B., Ledoux, T. A., & Johnston, C. A. (2020). Screen Media: A Powerful Reinforcement. *American Journal of Lifestyle Medicine*.

Elias, N., & Sulkin, I. (2017). YouTube viewers in diapers: An exploration of factors associated with the amount of toddlers' online viewing. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*.

Gaymon, D. D. (2015). Operant Conditioning and How it Applies to Parenting. *PennState*.

Imaniah, I., Dewi, N. K., & Zakky, A. (2020). Youtube Kids Channels In Developing Young Children's Communication Skills in English: Parent's Beliefs, Attitudes, and Behaviors . *International Journal of Language Education and Cultural Review (IJLECR)*, 6(1), 20–30. https://doi.org/10.21009/ijlecr.061.03

Izci, B., Jones, I., Özdemir, T. B., Alktebi, L., & Bakir, E. (2019). Youtube and young children: Research, concerns, and new directions . *ResearchGate*.

Kanozia, R. (2019). Do Youtube Based Children Channels Impact Parenting? An Exploratory Study. *ResearchGate*.

Lozano-Blasco, R., Quilez-Robres, A., Delgado-Bujedo, D., & Latorre-Martínez, M. P. (2021). YouTube's growth in use among children 0–5 during COVID19: The Occidental European case. *Technology in Society*, *66*, 101648. https://doi.org/10.1016/j.techsoc.2021.101648

Neumann, M. M., & Herodotou, C. (2020). Evaluating YouTube videos for young children. *Education and Information Technologies*.

Nikken, P. (2018). Parent's Instrumental use of Media in Child Rearing: Relationships with Confidence in Parenting, and Health and Conduct Problems in Children. *Journal of Child and Family Studies*.

Samaha, M., & Hawi, N. S. (2017). Associations between screen media parenting practices and children's screen time in Lebanon. *Telematics and Informatics*. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0736585316301071

Seo, H., & Lee, C. (2017). Emotion Matters: What Happens Between Young Children and Parents in a Touchscreen World. *International Journal of Communication*.

Siddiqui, A. (2019). A critical look at YouTube videos: Causing behavioral change among children. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3453417

Vagle, M. D. (2014). Crafting Phenomenological Research. *CIRS*.

Yasaroglu, C., & Boylu, M. A. (2020). Youtubers' Effect on Children's Values: Parents'. *European Journal of Educational Sciences*.

The effectiveness of revision without access to corrections on learning development

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Abstract

Revision following feedback can lead to pushed output (Shintani, Ellis, & Suzuki, 2014), which helps learners to notice grammatical forms that they might otherwise not attend to (Swain, 1995). However, there have been no studies investigating the effectiveness of revision in promoting learning development when learners cannot refer back to the feedback. To address this gap, this study used a pre-test, treatment, post-test, and delayed post-test design to examine the effectiveness of revision groups who do not have access to the feedback (direct CF plus revision, metalinguistic explanation plus revision) compared to non-revision groups (direct CF, metalinguistic explanation) on a complex linguistic structure, the English simple passive voice. A hundred EFL learners performed three writing tasks. The findings revealed that the non-revision groups had greater accuracy in the immediate post-test, but that the accuracy of the revision groups was retained over a longer period of time. The results suggest that revision without access to corrections can be an effective way to improve learners' accuracy in the long term. Furthermore, it provides insights into the cognitive processes involved in revision, suggesting that learners who revise without access to corrections are more likely to engage in deep processing of the feedback.

Keywords: second language writing, writing, written corrective feedback, revision, learning development

The effectiveness of revision without access to corrections on learning development

1. Introduction

Revision of a text can play a pivotal role in the development and refinement of language skills. Encouraging learners to revise their work fosters learning by enabling them to automate the production of correct words or phrases (Loewen, 2004). When learners revise their text without access to the feedback they previously received, they must retrieve information from their long-term memory, which helps to facilitate the consolidation of L2 knowledge. In addition, revision can also be seen as a skill-learning activity because modifying output by revising and correcting an initial draft can provide the practice needed to proceduralize explicit knowledge (Frear, 2012).

Although revision may facilitate L2 development, Truscott (2007) argued that a learners' improvement in producing an accurate revision of a text does not mean that they are able to produce these target forms in a new piece of writing. Trucott's claim may be true because there is a distinction between revision and writing a new text. In revision, learners are generally only required to focus on and revise the errors in the same linguistic context while in writing a new text, learners may be required to undertake deep processing and focus both on form and meaning in a new linguistic context. This is especially so when learners are provided with a type of written corrective feedback (e.g., direct CF) where they only need to copy the correct form in the revised text. Thus, more research is needed to determine whether revision leads to improved accuracy in new texts, especially revision following feedback when learners do not have access to the text on which they received feedback. This is the issue that the present study investigates. Therefore, this study, for the first time, explores the effectiveness of revision in promoting learning development when learners cannot refer back to the feedback. Subsequently, it examines the effectiveness of this type of revision on writing a new text.

The significance of this study lies in its focus on learners who revise their texts without access to prior feedback, a scenario that mimics real-world language use where learners must rely on their memory and internalized knowledge. By investigating this process, the study sheds light on how revision activities can enhance the linguistic accuracy and cognitive processing abilities of L2 learners. Specifically, it addresses the gap in understanding how such revision strategies impact learners from the targeted research population, offering insights that can inform instructional practices and curriculum design tailored to their needs.

2. Review of the literature

Providing learners with opportunities to revise their texts may play a crucial role in the development process because it prompts them to pay attention to the feedback they have received (Shintani et al., 2014). Several initial studies investigating the efficacy of written corrective feedback (CF) asked learners to revise their text after receiving written CF (Fathman & Whalley ,1990; Ferris and Roberts ,2001). These studies aimed to determine whether learners had learned anything from the feedback and whether they could accurately apply their learning when revising their texts. Fathman and Whalley (1990) as well as Ferris and Roberts (2001) reported that ESL learners who received written CF on their drafts demonstrated greater accuracy in their revised texts compared to learners who did not receive feedback. Similar results were found by Ashwell (2000) with EFL learners. However, these findings, which showed improved accuracy in revised texts, were challenged by Truscott (1996). He argued that learners' ability to revise accurately doesn't necessarily translate to actual L2 learning. To demonstrate true learning, learners should be able to apply their knowledge in new writing tasks. Consequently, several studies have explored the extent to which revision practices contribute to increased accuracy in new writing. However, research on the efficacy of revision in improving accuracy in new texts has yielded mixed results.

Truscott and Hsu (2008) found that the increased accuracy shown by their experimental group in revising their texts did not transfer to their writing of new texts. However, the findings of two studies by Van Beuningen et al. (2008, 2012) contradicted these findings. In their pilot study of 62 learners, Van Beuningen et al. (2008) found that both experimental groups (error code and direct error correction) increased their accuracy in the text revision; however, the first experimental group (i.e., direct error correction) was able to write a new piece of writing with improved accuracy a week later. In their main study (2012), the authors reported that after four weeks all 268 learners retained the same level of accuracy in the delayed post-test as was recorded in the text revision. The main difference between the studies by Truscott and Hsu (2008) and Van Beuningen et al. (2008, 2012) was the degree of explicitness of the written feedback. Truscott and Hsu (2008) used a type of feedback with a low level of explicitness (underlining), while Van Beuningen et al. (2008, 2012) used two more explicit types of feedback (direct correction and error codes). This suggests that the degree of explicitness of written feedback may impact its effectiveness. More research is needed to determine whether revision leads to improved accuracy in new texts, especially revision following feedback while learners do not have access to the text on which they received feedback. This is the issue that the present study investigates.

2.1 The linguistic focus of written CF

Written corrective feedback (CF) has been shown to improve accuracy over time, but its effectiveness on complex linguistic errors remains unclear. The effectiveness of written CF for different types of linguistic errors, particularly those involving intricate language structures, may vary. This is because morphological, syntactic, and lexical errors represent distinct domains of knowledge (Ellis, 2008; Ortega, 2009). Consequently, learners may need to integrate multiple linguistic elements when formulating hypotheses about the correct form for specific error types, potentially requiring different cognitive processes and strategies.

Several studies suggest that written corrective feedback (CF) can enhance accuracy in simple rule-based categories, such as English articles and the past tense (e.g., Bitchener, 2008; Bitchener & Knoch, 2008; Frear, 2012; Sheen, 2007; Shintani & Ellis, 2013). As far as I know, only two studies have investigated a complex structure: Shintani et al. (2014) and Rummel (2014) examined the hypothetical conditional and the present perfect tense, respectively. Rummel (2014) found that written corrective feedback (CF) effectively improved the accurate use of the present perfect tense immediately and over a seven-week period. However, Shintani et al. (2014) reported that learners who received this form of feedback didn't maintain improved accuracy in using the hypothetical conditional over two weeks. Therefore, further investigation is needed before making any broad conclusions. To address this gap, our study explores how effective written CF is in helping learners use the English passive voice.

3. The study

The aim of this study was to investigate the effectiveness of revision without access to the original text in promoting learning development. The research question addressed in this research was as follows:

➢ How does focused direct corrective feedback (DCF) and metalinguistic explanation (ME), both with and without revision, impact learners' use of the English passive voice in immediate text revisions and in new texts over time?

Participants - This study was conducted within the Departments of Foreign Languages and Literature at three universities and two language schools in Iran. One hundred and thirty-five L1 Persian male and female EFL learners participated in the research. The participants were randomly assigned to five groups, including four treatment groups and one control group. Each treatment group received specific corrective feedback (CF) on errors related to the use of the English passive voice. The CF types included direct written CF (DCF), direct written CF with revision (DCF+R), metalinguistic explanation (ME), and metalinguistic explanation with revision (ME+R). The control group (CN) underwent pre-tests and post-tests but did not receive any CF

treatment. After excluding participants who did not complete the post-test phases, the final number of participants was 100, distributed across the groups as follows: DCF (N = 20), DCF+R (N = 20), ME (N = 20), ME+R (N = 19), and CN (N = 21).

Target structure - This study focused on the English passive voice, a grammatical structure where the object of an action becomes the subject of the sentence. The original subject (the agent performing the action) can be omitted or expressed in a prepositional phrase. While both English and Persian have active and passive constructions, they differ in how the passive voice is formed. In English, the passive voice uses a combination of an auxiliary verb (e.g., "is" or "are") and the past participle of a transitive verb. For example, "He closes the window" (active) becomes "The window is closed by him" (passive). In Persian, the passive voice is formed by a past participle and a derived form of the auxiliary verb "شودن" (shodan). For instance, the sentence " سبزها چیده شده‌اند" (sabz-ha chida shodeh-and) translates to "The greens have been picked. Birjandi, Maftoon, and Rahemi (2011) identified a unique challenge for Iranian EFL learners regarding the passive voice. They argue that learners tend to rely on a default processing strategy, assigning the subject/agent role to the first noun or phrase they encounter in the input. This tendency, while seemingly logical, can lead to errors in passive voice construction, even at advanced levels. Despite the inclusion of passive voice chapters in many Iranian EFL textbooks (Hinkel, 2002), empirical evidence suggests widespread difficulty with the structure in both speaking and writing. Furthermore, the participants in this study, being Iranian students, had academic writing and scientific reporting as integral components of their coursework. This highlights the potential benefit of mastering the passive voice for their assignments, as academic writing often prioritizes the recipient or experience of an action over the specific agent (doer). Stating who performs an action can be redundant or irrelevant in academic contexts, making the passive voice a valuable tool for constructing concise and effective sentences. Therefore, this study focused on the simple present form of the passive voice, exemplified by "Diamonds are mined in South Africa."

Writing tasks - Process tasks were employed to elicit students' production of the passive voice. These tasks involve several stages presented in chronological order. Therefore, it is essential to commence at the beginning and sequentially describe each stage up to the final one. Process tasks typically focus on detailing processes (how something happens) or procedures (how something is done) and frequently employ the passive structure (Swales & Feak, 2001). The three tasks assigned to students involved describing the processes of chocolate production, the canning of apples, and the production of coffee. Participants were instructed to write approximately 200 words within a 30-minute timeframe for each task.

Design and Treatment Procedure - This study follows a quasi-experimental, pre/post-test design. Five groups participated: four experimental groups (direct corrective feedback, direct corrective feedback with revision, metalinguistic explanation, and metalinguistic explanation with revision) and one control group. Each group attended three sessions (see Table 1). The treatments were operationalized using four distinct written corrective feedback (CF) strategies: direct written CF, direct CF with revision, written metalinguistic CF, and written metalinguistic explanation with revision. Further details on each strategy are provided below.

Table 1
Study Design

Week	DC Group (N=20)	DC+R Group (N= 20)	ME Group (N= 20)	ME+R Group (N= 19)	Control Group (N= 21)
Week 1	Written task, pre-test			(Time 1)	
Week 2	DC (10 min)	DC (10 min) + Revision (30 min)	ME (10 min)	ME (10 min) + Revision (30 min)	No Treatment
	Written task, immediate post-test			(Time 2)	
Week 3	Written Task, delayed post-test			(Time 4)	

*Note***:** DCF=Direct corrective feedback, DCF+R=Direct corrective feedback and revision, ME=Metalinguistic explanation, ME+R= Metalinguistic explanation and revision

Group 1: DCF

In Week 1, learners completed writing task 1 (the pre-test). They were provided with writing task 1 and a sample answer, which they read for 10 minutes. Subsequently, the sample answer was collected, and participants began the writing task, having 30 minutes to complete it. In Week 2, the direct corrective feedback (DCF) group received written feedback on the writing they had done in the pre-test. The feedback specifically addressed the passive voice structure, and learners had 10 minutes to review the corrections to their writings. Following this, the first texts with feedback were collected, and the group undertook task 2 (the immediate post-test) over 30 minutes, using the same procedures as in the pre-test. In Week 4, learners generated writing task 3 (the delayed post-test), following the same procedures as in the immediate post-test.

Group 2: DCF+R

This group followed the same procedures as the DCF group in Week 1. However, in Week 2, learners were given 30 minutes to rewrite their initial text. Importantly, they were not permitted to review their corrected text while rewriting. After the rewrite, teachers collected the revised texts. Following this, participants immediately composed their second writing text (immediate post-test), adhering to the same procedures as in the pre-tests. In Week 4, they produced their fourth writing task, following the same procedures as in the immediate post-test.

Group 3: ME

The metalinguistic explanation group completed their first writing task using the same procedures as the previous two groups in Week 1. In Week 2, learners received no feedback on their writing from the pre-test. Instead, teachers provided them with their initial written text along with a handout containing a clear explanation of the passive voice. The handout was in Farsi to prevent any English vocabulary limitations from affecting comprehension. It included the definition of the English passive voice, instructions on how to construct it, and examples of the English passive voice in both English and Farsi. The group had 10 minutes to read the handout and check their text for passive voice errors. Subsequently, both the handouts and written texts were collected. Students immediately completed their second writing text (immediate post-test) using the same procedures as in the pre-test. In Week 4, students finished their third writing task, following the same procedure as in the immediate post-test.

Group 4: ME+R

The metalinguistic explanation plus revision group followed the same procedures as the ME group in Week 1. In Week 2, participants were provided with the writing task they had completed in Week 1 and the same handout given to the ME group (an explicit explanation about the passive voice). Learners were given 10 minutes to read the handout. Following this, the initial text and the handout were collected, and students had 30 minutes to rewrite their initial texts. After the rewrite, teachers collected the revised texts. Participants then immediately composed their second writing text (immediate post-test), adhering to the same procedures as in the pre-test. In Week 4, they generated their third writing task, following the same procedures as in the immediate post-test.

Group 5: Control

The control group did not receive any feedback on their writing texts. Participants completed their writing tasks using the same procedures as the experimental groups in Week 1. They underwent the immediate post-test in Week 2 and the delayed post-test in Week 4, completing each test in 30 minutes.

Scoring of Writing Tasks - The target structure in this study is the simple present passive voice. In English, the simple present passive voice is formed by combining "to be" with the past participle. The assessment of learners' use of the target structure can be done in two ways. In the absolute method, participants receive credit only if they accurately use both components. In other words, using only one out of the two components

accurately does not result in a score. The second method is a partial scoring system (Type 2), where each of the two components ("to be" and the past participle) is individually scored. Arguably, a partial scoring method can offer a more nuanced analysis than an absolute scoring method because the passive voice consists of two components, and students may acquire only one of them following feedback. Therefore, they should be credited for each correct component. The Type 2 method also assigns a score to participants attempting to apply the passive voice inaccurately, indicating they are in the process of learning the target structure. Previous studies addressing structural issues, such as the hypothetical conditional, have employed a Type 2 point system for data analysis (e.g., Shintani & Ellis, 2014).

In this scoring system, participants receive 2 points if they correctly use the passive voice, with 1 point for the accurate usage of "to be" and 1 point for the correct usage of the past participle. If only one of these components is correct, they receive 1 point. Participants demonstrating an attempt to use the passive voice are also awarded points; for instance, using an incorrect form of the verb "to be" (e.g., using "are" instead of "is") earns them 0.5 points, as they attempted to use the verb "to be." Similarly, if they use an incorrect form of the past participle (e.g., "spreaded" instead of "spread"), they are awarded 0.5 points (Refer to Tables 1, 2, and 3). If participants do not make any attempt, they do not receive any points, i.e., zero (0) points. Examples of correct sentences corresponding to Tables 2, 3, and 4 are as follows: " The window is closed," " The house is built," and " The door is shut."

Table 2
Regular Past Participle

Error	Example sentences	Mark
------	The window **is closed**	1+1
No *be*	The window **closed**	0+1
Wrong form of *be*	The windows **is closed**	.5+1
No past participle	The window **is close**	1+0
No *be*/ no past participle	The window **close**	0+0

Table 3
Irregular Past Participle

Type of Error	Example sentences	Mark
-------	The house **is built**	1+1
No *be*	The house **built**	0+1
Wrong form of *be*	The house **are built**	.5+1
Wrong form of past participle	The house **is builded**	1+.5
No past participle	The house **is build**	1+0
No *be*/ no past participle	The house **build**	0+0

Table 4
Irregular Past Participle – No Change in Form

Type of error	Example sentences	Mark
--------	The door **is shut**	1+1
Wrong form of past participle	The door **are shut**	1+.5
No *be*	The door **shut**	0+0
Wrong form of *be*	The door **shut**	.5+1

After scoring all the writing tasks, the following formula was utilized to calculate a total percentage score for each student:

$$\text{scored} \frac{\text{Number of points}}{\text{Number of points possible (i.e., number of passive uses x 2)}} \times 100$$

4. Data Analysis

SPSS version 22 was utilized for the statistical analysis of the writing tasks' data. To address the research question, descriptive statistics were initially conducted. Subsequently, a series of one-way ANOVAs were

employed to assess the comparative effects of the treatments between groups on the writing task. Repeated measure ANOVAs, incorporating pre- and post-test scores, were conducted to evaluate within-group improvement for the experimental feedback groups and the control group over time. In pairwise comparisons, both the p-value and Cohen's d effect size were utilized to assess the significance of the difference in mean scores. Cohen's d was employed for pairwise comparisons, while partial eta squared ($\eta 2$) was used for ANOVAs. Effect sizes for ANOVAs were calculated as eta-squared ($\eta 2$), with values of .138, .06, and .01 indicating large, moderate, and small effects, respectively. Effect sizes for pairwise comparisons were estimated using the correlation coefficient r, with values of .8, .5, or .2 indicating large, moderate, and small effects, respectively (Pallant, 2001).

The initial one-way ANOVAs identified significant effects in the pre-test for the research question. This significance observed in the pre-test phase raises concerns, as significant variations among groups during this phase might partially explain the differences noted in the immediate and delayed post-tests, which may not necessarily be attributed to treatment effects. In response to this concern, a one-way ANOVA utilizing gain scores was conducted. In experimental studies, where adjusting for pre-test covariates could introduce bias, it is recommended to utilize gain scores, as they offer an unbiased estimation of genuine change (Rogosa, 1988). Consequently, gain scores were computed to assess the improvement of learners from the pre-test to the post-tests across all groups.

5. Findings

To address the research question (RQ) examining whether requiring participants to revise has any impact on accuracy in subsequent pieces of writing, the two revision groups (i.e., those receiving metalinguistic explanation plus revision and direct CF plus revision) were amalgamated and compared with the two groups that did not undergo revisions (i.e., those receiving metalinguistic explanation and direct CF). The DMPR group represents the combined direct CF plus revision and metalinguistic explanation plus revision groups, while the DMWR group stands for the combined direct CF and metalinguistic explanation groups.

Table 5 illustrates a significant increase in accuracy for both experimental groups from the pre-test (Time 1) to the immediate post-test (Time 2). However, from the immediate post-test to the delayed post-test (Time 3), the changes observed in the experimental groups were minimal, with accuracy in both the DMWR (direct CF and metalinguistic explanation) and DMPR (direct CF plus revision and metalinguistic explanation plus revision) groups showing a slight decrease. Similarly, the control group experienced a slight increase in accuracy from the pre-test to the immediate post-test, followed by a sharp decline in the delayed post-test.

Table 5
Descriptive statistics for the accuracy scores in the written tasks

Groups		Time 1		Time 2		Time 3	
	N	M	SD	M	SD	M	SD
DMWR	40	37.59	26.82	79.33	18.09	75.45	22.68
DMPR	39	53.27	25.44	85.52	11.68	84.26	12.07
CN	21	54.40	31.92	58.70	29.11	41.07	33.21

Note: DMWR group stands for the combined DC and ME groups, DMPR group stands for the combined direct CF plus revision and metalinguistic explanation plus revision groups and CN stands for the control group.

Overall, the findings indicate that: (a) the experimental groups outperformed their pre-test scores in the post-tests; (b) the experimental groups achieved higher scores than the control group in both post-tests; (c) in the pre-test, the mean scores for DMWR (direct CF and metalinguistic explanation) (M=37.59, SD=26.82) were lower compared to the DMPR group (direct CF plus revision and metalinguistic explanation plus revision) (M=53.27, SD=25.44), and the control group (M=54.40, SD=31.92) (Refer to Table 5). This finding raises concerns, as significant differences between groups in the pre-test might contribute to group differences in Times 2 and 3, potentially not solely due to treatment effects. To address this, a one-way between-groups ANOVA was conducted to compare groups at Time 1.

The results of the one-way between-groups ANOVA revealed significant differences between groups at Time 1 (pre-test): $F (2, 97) = 4.128$, $P=.019$, $\eta^2 = 0.074$. As detailed in section 4, to address this concern, raw scores were transformed into gain scores. Table 5 displays descriptive statistics for the treatment and control groups for immediate gain (gain 1) and delayed gain (gain 2).

Table 6
Descriptive statistics of the gain scores for the accuracy scores in the written tasks

Groups		Gain 1		Gain 2	
	N	M	SD	M	SD
DMWR	40	41.74	26.55	37.85	26.86
DMPR	39	32.25	24.37	30.99	23.43
CN	21	4.30	30.38	-13.32	32.77

Note: DMWR group stands for the combined direct CF and metalinguistic explanation groups, DMPR group stands for the combined direct CF plus revision and metalinguistic explanation plus revision groups and CN stands for the control group.

For gain 1, the results of a one-way ANOVA revealed significant differences between groups: $F (2, 97) = 13.84$, $p < .001$, $\eta^2 = 0.22$. Table 7 presents the results of pairwise comparisons and Cohen's d values for gain 1. The findings indicated that both the DMWR (direct CF and metalinguistic explanation) and DMPR (direct CF plus revision and metalinguistic explanation plus revision) groups performed significantly better than the control group. Cohen's d values for DMWR and DMPR versus the control group were 1.31 and 1.01, respectively, signifying large effect sizes in Cohen's terms. However, DMWR had a higher value than DMPR. The analyses did not reveal any significant differences between DMWR and DMPR. Cohen's d value for DMWR versus DMPR detected a small effect size, specifically 0.37.

Table 7
Effect Sizes in the Form of Cohen's d for the Accuracy Scores Between Groups

Group Contrast	Gain 1		Gain 2	
	d^1	p^2	d	p
DMWR vs. DMPR	0.37	.34	0.27	.78
DMWR vs. CN	1.31	.00	1.70	.00
DMPR vs. CN	1.01	.001	1.55	.00

Note. 1 Effect size (Cohen's d). 2 Results of null hypothesis significance testing. DMWR group stands for the combined direct CF and metalinguistic explanation groups, DMPR group stands for the combined direct CF plus revision and metalinguistic plus revision groups and CN stands for the control group.

For gain 2, the results of a one-way ANOVA showed significant differences between groups: $F (2, 97) = 26.71$, $p < .001$, $\eta^2 = 0.35$. The findings of pairwise comparisons and Cohen's d values for gain 2 are reported in Table 6. The results indicated that the mean scores for both DMWR (direct CF and metalinguistic explanation) and DMPR (direct CF plus revision and metalinguistic explanation plus revision) were significantly higher than the control group. The resulting Cohen's d values for DMWR and DMPR versus the control group were 1.70 and 1.55, respectively, representing large effect sizes in Cohen's terms. However, the value of DMWR was higher than DMPR, as opposed to the control group. The analyses did not reveal any significant differences between DMWR and DMPR. Cohen's d value for DMWR versus DMPR was 0.27, indicating a small effect size.

In summary, for gains 1 and 2, both DMWR and DMPR groups performed significantly better than the control group with large effect sizes. However, the value of DMWR was higher than DMPR for both gain scores 1 and 2, suggesting that the DMWR group was more effective than the DMPR group. To assess within-group effects, repeated measure ANOVAs with pre- and post-test scores were conducted to compare scores on writing between the DMWR and DMPR groups at Time 1 (pre-test), Time 2 (immediate post-test), and Time 3 (delayed post-test). The means and standard deviations are presented for both groups in Table 5. The findings of repeated measure ANOVA showed that all groups had a significant effect for time: $F (2, 96) = 45.01$, $p < .001$, $\eta^2 = 0.48$. The results of repeated measure ANOVAs for each group showed a significant effect for time for the DMWR group: $F (2, 38) = 49.94$, $p < .001$, $\eta^2 = 0.72$, and the DMPR group: $F (2, 37) = 34.70$, $p < .001$, $\eta^2 = 0.65$.

Table 8
Effect Sizes in the Form of Cohen's d for the Accuracy Scores Overtime

Group		Time 1–Time 2		Time 2–Time 3		Time 1–Time3	
	N	d^1	p^2	d	p	d	p
DMWR	40	1.82	.00	0.18	.53	1.52	.00
DMPR	39	1.62	.00	0.10	1.00	1.55	.00
CN	21	.14	1.00	0.56	.008	0.40	.23

Note: DMWR group stands for the combined direct CF and metalinguistic explanation groups, DMPR group stands for the combined direct CF plus revision and metalinguistic explanation plus revision groups and CN stands for the control group.

The results presented in Table 8 include pairwise comparisons (paired t-test) and effect sizes for the DMWR (direct CF and metalinguistic explanation), DMPR (direct CF plus revision and metalinguistic explanation plus revision), and control groups. The findings reveal that both the DMWR and DMPR groups demonstrated significant improvement from Time 1 to Time 2, with large effect sizes of 1.82 and 1.62, respectively. The DMWR group had a larger effect size than the DMPR group during this period. For both the DMWR and DMPR groups, there were no significant differences from Time 2 to Time 3. The effect sizes for this period were small, measuring 0.18 for DMWR and 0.10 for DMPR. However, the scores at Time 3 were significantly higher than those at Time 1. The effect sizes for the DMWR and DMPR groups increased from Time 1 to Time 3, with large effect sizes of 1.52 and 1.55, respectively. The DMPR group had the larger value during this period.

In contrast, the control group showed no significant differences from Time 1 to Time 2, with small effect sizes. However, the scores significantly decreased from Time 2 to Time 3, with a medium effect size. There were no significant differences from Time 1 to Time 3, with a small effect size. In summary, both the DMWR and DMPR treatments were effective. However, the DMWR treatment demonstrated greater effectiveness in the short term, while the DMPR treatment proved more effective in the long term.

6. Discussion

This study examined the effectiveness of revision without access to corrections on learning development. Interestingly, the non-revision groups (i.e., direct CF and metalinguistic explanation) performed better on the immediate post-test. However, the revision groups (i.e., direct CF plus revision and metalinguistic plus revision) showed better retention of accuracy over time. These findings can be explained theoretically through the concept of "pushed output". As, it is likely that written CF followed by revision leads to 'pushed output' (Shintani et al., 2014), especially if learners have no access to the corrections when they start writing the revision draft (as in the present study) (Shintani et al., 2014). In this study, learners revising without access to corrections likely experienced pushed output. As Swain (1985, 1995) argues, when pushed to produce language, learners become aware of the "gap between what they want to say and what they can say" (Swain, 1995, pp. 125-126). This recognition of their limitations motivates them to focus on unfamiliar grammatical forms. Furthermore, revision promotes retrieval of information from long-term memory, facilitating the consolidation and proceduralization of L2 knowledge. Essentially, revising requires learners to process feedback more deeply, potentially leading to a stronger grasp of the target language structure.

Empirically, to the best of my knowledge, the study by Shintani et al. (2014) stands as the only one thus far that combined revision groups and non-revision groups and compared the effectiveness of different types of written CF. Similar to this study, they found that both revision (i.e., direct CF plus revision and metalinguistic plus revision) and non-revision groups (i.e., direct CF and metalinguistic explanation) displayed greater accuracy than the control group in the short term. However, in contrast to the present study, which revealed that both the revision and non-revision groups were more accurate than the control group in the delayed post-test and that the non-revision group was more accurate than both the revision and the control groups in the delayed post-test, they found that only the revision group had greater accuracy than the control group in the delayed post-test.

The difference in findings could possibly be attributed to the fact that learners in the revision groups in Shintani et al.'s study had access to the initial draft they had received feedback on while they were writing the revision text; however, learners in the current study had no access to the initial draft they received feedback on.

Access to the first draft in Shintani et al.'s study likely reduced cognitive load on attention and memory, both of which are essential when correcting errors, compared to the learners in the present study. Shintani (2017) also argued that access to explicit instruction (e.g., the initial draft learners received feedback on) assisted learners in monitoring the accurate use of the target structure and enabled them to correct their errors in the writing task. Furthermore, in the present study, it is plausible that administering two tests (i.e., revision and immediate post-test) in one session was demanding, thereby placing a greater cognitive load on the revision group. Shintani et al. (2014) conducted post-test (1) seven days after the treatment session. Thus, it is possible that, in Shintani et al.'s (2014) study, providing learners with the initial draft and allowing a gap between the treatment session and post-test (1) resulted in different findings.

7. Conclusion

This study is the first to examine the effectiveness of revision in promoting learning development when learners cannot refer back to the feedback. The results showed that that the non-revision groups (i.e., direct CF and metalinguistic explanation) had greater accuracy in the immediate post-test, but that the accuracy of the revision groups (i.e., direct CF plus revision and metalinguistic plus revision) was retained over a longer period of time. The findings suggest that the extra attention required from learners to revise their work may have led to pushed output because learners noticed the gap. Despite several studies showing accuracy improvements without revision, the absence of a revision group in these studies prevented a comprehensive comparison. Both this study and several previous studies (Shintani et al., 2014; Van Beuningen et al., 2008, 2012) compared the improved accuracy of revision and non-revision groups and found that while non-revision groups improved their accuracy, revision groups maintained accuracy for a longer duration. The lack of revision groups in many prior studies underscores the need for further investigation to determine whether revision groups can achieve greater accuracy compared to non-revision groups, or vice versa.

This research offers significant contributions to the domain of second language writing. Initially, it presents the initial empirical proof that revising without the ability to refer back to corrections can serve as an efficient method to enhance learners' accuracy over an extended period. Secondly, it sheds light on the cognitive mechanisms at play during the revision process, indicating that learners who revise without correction access are inclined to engage in thorough processing of the feedback. Thirdly, it validates certain elements of skill acquisition theories (DeKeyser, 2015) within the written context.

The implications of this study are relevant for both teachers and learners. For teachers, the findings suggest that incorporating revision activities into writing instruction can be beneficial, particularly when learners are encouraged to revise without referring back to their original feedback. This approach may promote deeper cognitive processing and long-term retention of language forms. Teachers may also consider integrating revision strategies that push learners to rely on their memory and understanding, thus facilitating the proceduralization of knowledge. For learners, this study highlights the value of engaging with feedback actively through revision. It encourages learners to view revision as a crucial part of the learning process, one that can lead to improved accuracy and sustained language development over time.

Despite achieving its goals, the present study acknowledges several limitations. One limitation concerns the use of the same type of writing task (reconstruction tasks) for all three tests (pre-test, immediate post-test, and delayed post-test). These tasks involve a series of steps in chronological order, requiring participants to begin at the beginning and describe each stage sequentially. While using reconstruction tasks in this study encouraged participants to employ the target structure (e.g., reconstructing the process of making chocolate), it remains unclear whether this improvement would generalize to other writing genres. Another limitation of this study is its duration. Conducted over four weeks with a delayed post-test two weeks after the immediate post-test, the research design offers valuable insights into learning gains within this timeframe. However, it remains unclear whether these improvements in accuracy for the experimental groups would be sustained over a longer period. Finally, as the first study to examine the efficacy of revision when learners cannot refer back to feedback, our

findings highlight the necessity for additional research. It is recommended that future studies explore this area in diverse contexts and across different proficiency levels to gain a more comprehensive understanding of the role of revision in language learning and development.

8. References

Ashwell, T. (2000). Patterns of teacher response to student writing in a multiple-draft composition classroom: Is content feedback followed by form feedback the best method? *Journal of Second Language Writing, 9*(3), 227-257.

Birjandi, P., Maftoon, P., & Rahemi, J. (2011). VanPatten's processing instruction: Links to the acquisition of the English passive structure by Iranian EFL learners. *European Journal of Scientific Research, 64*(4), 598-609.

Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing, 17*(2), 102-118.

Bitchener, J., & Knoch, U. (2008). The value of written corrective feedback for migrant and international students. *Language Teaching Research*, *12*(3), 409-431.

DeKeyser, R. (2015). Skill acquisition theory. In B. VanPatten, & J. Williams (Eds.). *Theories in second language acquisition: An introduction* (pp. 94-122). Routledge.

Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford University Press.

Fathman, A., & Whalley, E. (1990). Teacher response to student writing: Focus on form versus content. *Second language writing: Research insights for the classroom*, *9*, 178-190. https://doi.org/10.1017/CBO9781139524551.016

Ferris, D. R., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of second language writing*, *10*(3), 161-184. https://doi.org/ 10. 1016/S1060-37 43 (01)00039-X

Frear, D. (2012). *The effect of written corrective feedback and revision on intermediate Chines learners' acquisition of English*. (Unpublished doctoral dissertation). University of Auckland, Auckland, New Zealand.

Gass, S. M. (1997). *Input, interaction and the second language learner*. Lawrence Erlbaum Associates.

Hinkel, E. (2002). *Second language writers' text: Linguistic and rhetorical features*. Routledge.

Loewen, S. (2004). Uptake in incidental focus on form in meaning-focused ESL lessons. *Language Learning*, *54*(1), 153-188.

Ortega, L. (2009). *Understanding second language acquisition*. Hodder Arnold. Pallant, J. (2013). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (4th ed.). Allen & Unwin.

Pallant, J. (2001). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows (Versions 10 and 11): SPSS Student Version 11.0 for Windows*. London: Open University Press.

Rogosa, D. (1988). Myths about longitudinal research. In K. W. Schaie, R. T. Campbell, W. M. Meredith, & S. C. Rawlings (Eds.), *Methodological issues in aging research* (pp. 171-209). Springer.

Rummel, S. (2014). S*tudent and teacher beliefs about written CF and the effect those beliefs have on uptake: A multiple case study of Laos and Kuwait*. (Unpublished doctoral dissertation). AUT University, Auckland, New Zealand.

Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly*, *41*(2), 255-283.

Shintani, N., & Ellis, R. (2013). The comparative effect of metalinguistic explanation and direct written corrective feedback on learners' explicit and implicit knowledge of the English indefinite article. *Journal of Second Language Writing*, *23*(3), 286-306.

Shintani, N., Ellis, R., & Suzuki, W. (2014). Effects of written feedback and revision on learners' accuracy in using two English grammatical structures. *Language Learning*, *64*(1), 103-131.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds), *Principle and practice in applied linguistics: Studies in honour of H. G. Widdowson* (pp. 125 144).

Oxford University Press.

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language learning*, *46*(2), 327-369.

Truscott, J. (2007). The effect of error correction on learners' ability to write accurately. Journal of second language Writing, 16(4), 255-272.

Truscott, J., & Hsu, A. Y. p. (2008). Error correction, revision, and learning. *Journal of Second Language Writing*, *17*(4), 292-305.

Van Beuningen, C. G., De Jong, N. H., & Kuiken, F. (2008). The effect of direct and indirect corrective feedback on L2 learners' written accuracy. *International Review of Applied Linguistics*, *156*, 279-296.

Van Beuningen, C. G., De Jong, N. H., & Kuiken, F. (2012). Evidence on the effectiveness of comprehensive error correction in second language writing. *Language Learning*, *62*(1), 1-41.

School violence in Cameroon public secondary schools: Causes and mitigating strategies

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Abstract

The issue of violence is a newsworthy concern in most public secondary schools in Cameroon. Despite government's and stakeholders' efforts to curb this social ill, the incidence keeps increasing. Given this situation, there is need to explore the reasons for the persistence and exploit potential measures to mitigate the situation. A cross-sectional survey was used in this study. Purposive and convenient sampling techniques were used to select 680 students and 140 teaching and administrative staff from 14 public secondary schools in the 10 Regions of Cameroon. Descriptive statistics mainly, frequencies, percentages, mean, and standard deviations were used to analyse the quantitative data while thematic analysis was used for qualitative data. The findings indicate that the common causes of school violence include limited parental supervision of children's behaviour, loose rules on children's behaviour in the family, abusive use of drugs, exposure to violence and teachers' attitudes towards students. The respondents indicated that school violence could be mitigated through effective counselling and rehabilitation of perpetrators and victims, sensitization, discipline and parental guidance. From the findings, it is evident that combating school violence is a collective enterprise involving parents, the community, school and other stakeholders. In this partnership, the school has a crucial role in promoting a Social Emotional Learning (SEL) programme and guaranteeing the safety of students and other school officials. To attain these goals, there is need to increase the number of school counsellors, elicit para-counselling and employ the services of psychologists and security agencies to manage extreme cases.

Keywords: school violence, causes, management, mitigation, strategies

School violence in Cameroon public secondary schools: Causes and mitigating strategies

1. Introduction

Currently, one of the major social problems in most secondary schools and communities is the unprecedented increase in the cases of violent behaviors like murder, abduction, fighting, bullying, assaults, verbal and sexual abuse. The perpetrators are usually but not exclusively teens. Such manifest delinquency is usually directed towards their junior ones, peers, teachers as well as other personnel of the school administration and the community. According to Gupta (2023), school violence is a form of threat within the school milieu which can be committed with or without weapons by students, teachers or other school staff. It has a negative effect on school life and the broader community. School violence can occur in multiple settings like the classrooms, route to or from school, around school, school-sponsored events, and the neighborhoods. There is no gainsaying that schools are supposed to play important roles in protecting children against violence. Rather, they are more and more transforming into battlefields with immeasurable consequences for the educational community and nation.

In Cameroon, the government has a policy of ensuring that discipline is kept to maximum in public secondary school campuses to provide an enabling learning environment for learners. This is usually done by appointing Discipline Masters/Mistresses and School Counselors to monitor and culture the students in civic and empathetic behaviors toward one another. In spite of these measures, Cameroon public secondary schools have increasingly become centers of excessive violence perpetuated by students on their peers and, at times, teachers and other school officials. The schemes to orchestrate violence are as varied as the incidences that provoke them. They could stem from disciplinary sanctions and dismissals of students for poor conduct or simply drop-outs for academic and social reasons. In such cases, these punished, dismissed students or drop-outs camp around the school campuses, form networks with like-minded peers on the school campuses and continue to steer violent acts in the school milieu or the community at large. At times they devise schemes to follow their targets on their way home and get them violently assaulted. Some of these assaults have resulted in deaths. In some cases, where the concerned are girls, they are physically attacked and, at times, subjected to forceful sex. Efforts at managing the situation at the school and public policy levels have proven to be futile leaving the school administration, parents and the community in a dilemma. These shortcomings obviously negatively affect academic learning and the process of civic socialization. There is therefore a need to explore the causes of this social ill and exploit sustainable strategies that can be put in place to mitigate the situation.

Research Questions

➢ What are the causes of school violence in Cameroon Public secondary schools?

➢ Which possible strategies could be employed to mitigate the situation?

2. Background and Review of Related Literature

According to (UNESCO, 2023), school violence is all forms of violence that takes place inside or outside of the classroom, around schools, on the way to or from school, as well as online and other digital environments. The Center for Disease Control and Prevention (CDC, 2017) states that school violence refers to the occurrence of physical or psychological violence within educational institutions, including bullying, fighting, verbal abuse, and physical abuse. Agatston et al. (2015) on their part, see school violence as a complex phenomenon involving physical, emotional, and psychological harm to students, staff, or property. Miller & Kraus (2008) indicate that school violence consists of a range of actions such as child and teacher victimization, cyberbullying, fights, emotional abuse, and sexual boundary violations. It is exhibited by students to students, students to teachers, teachers to students, students to school administrators and vice versa. These indicate that school violence includes a variety of actions which cause harm to students, teachers and other school administrations. According to Ferrara

et al. (2019), since children spend more of their time in school with adults, there is need to investigate school violence because some physical, psychological and school problems arise from that and the consequences could be long lasting. The causes of violent behaviour among students and staff are both biological and environmental.

Some behavioural psychologists like B. F. Skinner, Ivan Pavlov and Albert Bandura see violence as a learned behaviour displayed by individuals as they interact with different persons and situations in the environment (Mueller & Nkosi, 2017). Others believe that because of the biological nature of human development, some children inherit this maladaptive behaviour from their parents. Agatston et al. (2015) indicate that some factors that contribute to school violence are antisocial personality traits, substance abuse, and family history of child maltreatment. They emphasize that young people who use excessive alcohol and other substances are likely to exhibit violent behaviour. According to Smith & Thomas (2000); Mueller & Nkosi (2017); UNESCO (2023) and Patel et al. (2017), school violence is caused by but not limited to adverse childhood experiences, academic difficulties, social media, peer pressure, traumatic life experiences, use of drugs, lack of social support, access to weapons, stereotypes and discrimination.

Zhou et al. (2022) also indicate that parents violence increases children's aggressive behaviour in the community and at home. These indicate that school violence stems from diverse facets of the society. According to the American Psychological Approach (APA, 2013), the effects of viewing violence on television, especially among children lays a foundation for potential aggression at an older age. Nelson et al. (2007) corroborate this by adding that messages about aggressive behaviour enter the world of children through violent films, music and television programmes despite how hard families try to screen them out. The Social Learning Theory of Albert Bandura (1977), also emphasizes this issue by stating that children and adolescents, can learn to engage in violent behavior by observing and imitating the behavior of role models, such as peers, family members, and media characters who are considered as heroes by using violent methods to solve problems. Anderson & Dill, (2000) and Reddy et al. (2003) support this view by indicating that when children are exposed to violence, they learn to normalize it as a way of dealing with conflicts.

School violence comes with negative effects on both the perpetrators and the victims. Maynard et al. (2017), and Ranasinghe et al. (2017) opine that violence negatively impacts the victims' mental, emotional, and physical well-being, which manifests in social avoidance, depression, anxiety, fear of negative evaluation, learned helplessness, suicidal thoughts and the inability to react successfully and satisfactorily to the demands of the society. In addition, students who are exposed to violence in schools may have difficulty learning and may be more likely to drop out of school (Elliott, 2016 and Sadler & Bolen, 2010). According to MacNeil (2002), violence does not only lead to physical harm but it also leads to embarrassment, rejection, and anxiety with real and lasting pain. Vera et al. (2023) support this view by indicating that school violence which could be expressed through relational victimisation like slander and insults leads to maladaptive behaviours like isolation, low self esteem and depression. In the Cameroon context, for the last five or three years, schools have experienced various cases which resulted in the loss of lives.

Some of these cases reported in various News agencies in Cameroon are as follows: On 29 March 2019, a 17-year-old student was stabbed to death by his classmate in Government Bilingual High school Deido (CRTV 29 March 2019); On 14 January 2020, a Mathematics teacher, Djomi Tchakounte died at the University Teaching Hospital of Yaounde after being stabbed by his student at the Government High School Nkolbisson (CRTV 14 January, 2020); On 6 April 2022, a student stabbed the principal of the Yona School Complex located at Nkolbisson. On 15 September, 2022 a 17-year-old student of Ambam Technical High School was hospitalized after receiving a terrible kick from a Guidance Counsellor. (CRTV,15 September 2022); On 17 November, 2022 students wrestled with military men, and burnt down offices in Government Technical High School Nkwen in Bamenda (Facebook CRTV web 17 November 2022); On 28 March, 2024, the class prefect of form 4A in Bilingual High School Bertoua was stabbed to death by his classmate (Cameroon News Agency, March 2024). These cases are indicative of the endemic level and consistency of violence in secondary schools. It is also an invitation to investigate the contextual causes and rally perspectives that could help salvage the problem.

To remedy the issue of school violence, Nelson et al. (2007) indicate that school programs can make a difference in preventing children's aggressive behaviour which will reduce the possibility of violence in future. They further state that it is difficult to apply a zero-tolerance policy in schools but children must learn how to control their anger and practice using nonviolent problem-solving techniques which can be done using violence-preventive curricula. The National Center for School Safety 9NCSS, 2024) also provides a comprehensive programme on improving school safety and preventing school violence through Social Emotional Learning (SEL) programme which focuses on teaching students how to manage their emotions, build healthy relationship and other important social skills. The center also emphasizes the importance of restoration practices which indicates that discipline should focus more on repairing rather than punishment. According to Volungis and Goodman (2017), one of the ways in which to prevent school violence is to build core positive teacher-student relationship skills which focus on the context of treating students with dignity, respect, empathy, genuineness, unconditional positive regards and nonjudgmental attitude. Smith et al. Daunic (2005) state that schools in the United States have adopted school-wide programmes on conflict management where students learn about caring communities and simulations could be used in training children to handle their own conflicts. These sterling experiences could inform the situation in Cameroon in terms of the causes and especially the mechanism to reverse the situation.

3. Research Methods and Procedures

3.1 Design and sample

A cross sectional survey was used to collect data from 680 students and 140 teaching and administrative staff from 14 Public secondary schools which comprised of Government Bilingual High Schools (GBHS), Government Bilingual Technical High Schools (GBTHS) and Government Technical High Schools (GTHS) sampled from all the 10 Regions of Cameroon (see table 1). A purposive sampling technique was used to select the schools in each of the Regions where there have been reported cases of violence some of which had led to murder. The investigation took into account the views of student from both general and technical education schools from Form 4 and Troisieme to upper sixth and Terminale. The research focused on both the French and the English systems of Education. The students from Form 4 and Troisieme were 201 (29.6%), those from Form 5 and Seconde were 162 (23.8%), those from Lower Sixth & Premiere were 148 (21.8%) and those in Upper Sixth & Terminale were 169 (24.9%). In relation to sex, 235 (34.6%) of the students were male and 445 (65.4%) were female. In terms of age range, 232 (34.1%) were between 13-15 years old, 365 (53.7%) were 16-18 years old, and 83 (12.2%) fell within 19 and 21. A convenient sampling technique was used to select at least 7 staff members from each school consisting of teachers, Guidance counsellors, discipline masters/mistresses and vice principals.

Table 1
Presentation of Students and Staff according to schools

School	Region	Number of students	Number of Staff
GBHS Etoug-Ebe	Center	50	10
G.B.H.S Bertoua	East	51	10
G.B.H.S Babouantou	West	49	7
G.B.H.S Ebolowa	South	48	8
G.B.H.S Ngaoundere	Adamawa	50	13
G.B.T.H.S Bamenda	North West	55	11
G.T.H.S Nkwen	North West	42	3
G.B.H.S Deido	Littoral	37	14
G.B.H.S Bepanda	Littoral	50	10
Bilingual Grammar School Molyko	South West	54	13
G.T.H.S Molyko	South West	50	13
G.B.H.S Kollere-Garoua	North	59	10
G.B.H.S Maroua	Far North	49	13
G.B.H.S Mindif	Far North	36	5
Total		680	140

3.2 Instruments

Two sets of questionnaires were designed for the students and the staff. The students' questionnaire was made up of closed-ended and semi structured items. Part one consisted of demographic information of the respondents, and part two, which was divided into two sections consisted of causes and prevention of school violence. Section A comprised of eleven closed ended items on the causes of school violence rated on a scale of four, namely: Agreed, Strongly Agreed, Disagreed and Strongly Disagreed. Section B comprised of a semi structured item on the strategies that can be put in place to mitigate school violence. The items on the questionnaire were both in English and French since they were administered to English and French-speaking students. The questionnaire for teachers, counsellors and other school administrators consisted of semi structured items on the causes and strategies that could be put in place to remedy the situation. The researcher used 10 research assistants to administer the instruments in the different Regions. The copies of the questionnaires were administered within a period of two months (September 20 to November 19 2024). Concerning the returned rate of questionnaires,700 copies were administered to students, and 680 (97.14%) were filled and returned while 160 copies of the questionnaire were administered to the staff and 140 (87.5) copies were returned.

Validity and reliability of instrument - The student questionnaire was pilot tested on a sample of 30 students from GBHS Bayelle Bamenda who had similar characteristics with the sample of the study to check content validity and reliability. The reliability was calculated using Cronbach's alpha measure of internal consistency which is a measure of the consistency between different items of the same construct. This was done using SPSS version 26 and a Cronbach's alpha coefficient of 0.84 was realized. This is good reliability according to Taber (2018). Equally, the teachers' questionnaire that had open ended questions was pilot tested on 5 teachers to refine it and verify if there were issues. Equally, repeated administrations were conducted on the same participant using the same open ended questionnaire items. the results showed some consistency in the responses. Hence it was concluded that the questionnaire was reliable.

3.3 Data analysis

Descriptive statistics were used to analyse data. The data was coded and inputted into the SPSS (Statistical Package for Social Sciences) version 26. The demographic information and the qualitative data from the students' questionnaire were analysed in the form of frequencies, percentages, mean and standard deviation and presented in charts and tables. Qualitative data from the open-ended questions were analysed using thematic analysis. Here the researcher sought to objectively and systematically identify themes in the data. This was done following the steps proposed by Braun & Clarke (2006). The researcher read and cross-checked the transcripts to become familiar with the data. To generate codes, the theoretical thematic analysis rather than an inductive style was used. After this, the researcher sought to get themes that captured significant or interesting aspects of the research question by examining the codes and fitting them to a theme. The themes were reviewed, defined and the data reported.

3.4 Ethical considerations

Consent was taken from all the respondents before administering the instruments. Confidentiality was also ensured by not including names of the participants in the instruments.

4. Findings

The findings are presented on the frequency of manifestation of violence, causes of violence and the strategies put in place to mitigate the situation

4.1 Manifestation of school violence

Judging from the frequencies in Table 2, it shows that the majority of the students acknowledged that violent

behaviour is manifested in schools more than once a week. This suggests that it is a call for concern.

Table 2
Students' opinion on the frequency of violent manifestations in schools

Rating	Frequency	Percentage (%)
Once a year	10	1.5
More than once a year	55	8.1
More than once a month	87	12.8
More than once a week	272	40
Every time	256	37.6
Total	680	100

4.2 Causes of school violence

Research question One: What are some of the causes of school violence in Cameroon Public secondary schools?

Table 3
The causes of school violence from the students' perspectives

Items	SA	A	D	SD	Collapsed agreement	Collapsed disagreement	Mean	SD
Inadequate parental supervision of children's behaviour	211	285	96	88	496(72.95)	184(27.1%)	2.91	0.98
Loose rules on children's behaviour in the family	212	267	102	99	479(70.4%)	201(29.6%)	2.87	1.01
Violent actions by parents at home	161	229	146	144	390(57.4%)	290(42.6%)	2.61	1.06
Watching violent films	197	241	114	128	420(61.8%)	260(38.2%)	2.74	1.07
Exposure to violent activities on social media	195	255	122	106	450(66.2%)	230(33.8%)	2.80	1.02
Exposure to violent activities in the community	193	262	117	108	448(65.9%)	232(34.1%)	3.03	1.03
Use of drugs/alcohol	300	177	127	76	477(70.1%)	203(29.9%)	2.70	1.04
Teachers attitude towards students	170	273	109	128	443(65.1%)	237(34.8%)	2.54	1.06
Teachers' use of corporal punishment	155	219	158	148	374(55%)	306(45%)	2.63	1.11
Exposure to weapons	201	188	143	148	389(57.2%)	291(42.8%)	2.62	1.12
Multiple response set					437	243	2.75	1.05

Table 3 shows that a majority (72.95%) of the respondents agreed that inadequate parental supervision of children's behaviour is one of the causes of school violence while (27.1%) disagreed. Likewise, a bulk (70.4%) of the respondents agreed that the lack of rules on children's behaviour in the family causes school violence, while 29.6% denied. In addition, more than half (57.4%) of the respondents agreed that violent actions by parents at home is one of the causes of school violence while 42.6% gave a contrary opinion. In like manner, when asked whether watching of violent films cause school violence, a majority (61.8%) of the respondents accepted while 38.2% denied. In relation to exposure to violent activities on social media as a cause of school violence, most (66.2%) of them acknowledged while 33.8% disagreed. Similarly, a majority (65.9%) of students agreed that exposure to violent activities in the community is also one of the causes of school violence while a few (34.1%) disagreed. Moreover, the respondents were questioned whether the use of drugs/alcohol causes school violence and a majority (70.1%) accepted while a few (29.9%) denied. Concerning the issue of teachers attitudes as one of the causes of school violence, more than half (65.2%) accepted while 34.8% disagreed. Equally, the respondents were asked whether teachers use of corporal punishment is a cause of school violence and many (55%) accepted while 45% disagreed. Similarly, a majority (57.2%) of respondents agreed that exposure to weapons is a cause of school violence while 42.8% indicated a contrary opinion.

Summarily, from the multiple response set, an average of 437 (64.3%) of the responses on the causes of school violence were positive and 243 (35.7%) were negative. The mean for causes of school violence was 2.75 on a 4-point scale. Thus, it can be inferred that the factors identified were rated higher above average as causes of school violence. The standard deviation was 1.05 which is insignificant, meaning that the responses were closer to the mean, indicating that the respondents had similar responses. The results show that the causes with the highest frequencies are inadequate parental supervision of children's behaviour, lack of rules on children's behaviour in

the family and the use of drugs. This shows that the family has a lot to play as far as violent behaviour among students is concerned.

The teaching and administrative staff were also quizzed on the causes of persistent violence in school. Their responses, as detailed below, range from inadequate parental supervision and control to social influence.

Inadequate parental supervision and control: The majority of the staff indicated that some students exhibit violent behaviour because of inadequate parental supervision and control. They hold that when parents have a nonchalant or laissez-faire attitude towards their children's behaviour, they tend to develop aggressive tendencies. One of the respondents said, 'lack of parental involvement in their children's education and behavior can contribute to an environment where violence is more likely to occur. Some parents do not care when their children start exhibiting violent behaviour at a young age. This gradually makes them aggressive towards their friends and mates in schools.'

Inter-parental conflict: Some of the respondents indicated that students who come from homes where parents openly exhibit violent behaviour towards each other are bound to be violent. One of the respondents supported this by saying that "children who watch their parents fight copy this negative behaviour. To them that is the best way to handle any person who angers them." Another respondent reported that "When parents quarrel in front of their children, the children imitate this behaviour and it becomes part of them. Parents who use verbal violence against each other unintentionally teach their children to do the same".

Peer pressure: To some of the respondents, peer pressure pushes some students into violent behaviour, especially when they are involved in deviant activities like drugs. One of the respondents stated that "there are some students who come from well-disciplined homes but they end up joining groups that influence them to smoke, drink, gang up against non-group members and even against their teachers." Another respondent added, "some students are influenced by their peers to engage in risky or violent behavior for fear of being rejected by friends."

Societal influence: According to some of the respondents, some children become violent because of the broader social and cultural factors. One of the respondents indicated as follows, 'some students become violent as a result of a violent community. When children are in neighbourhoods which are characterised by all forms of violent acts, they copy these behaviours and it becomes part of them. Some who grow up in such communities believed that the only way to defend themselves is through violence." Another respondent added, "exposure of children to community violence negatively shapes their attitudes and behaviour towards others. To them, violence is the only way to survive".

The quantitative and qualitative data from both students, teachers, counsellors and other administrative staff indicate that some of the main causes of violent behaviour among students are inadequate parental supervision and control of children's behaviours, inter-parental conflict, drug abuse, teachers' attitudes and exposure to violent behaviour in the community and media.

4.3 Mitigation of school violence

Research question two: Which possible strategies could be employed to mitigate the situation?

Students were asked to list two strategies which they thought could be put in place to reduce school violence. The responses from the students in Table 4 indicate that most of them believe that school violence could be managed by punishing the perpetrators, effective counselling, implementation of strict rules and regulations in school on violent behaviour, parental guidance and sensitization. Teachers and other school administrators were also asked to propose strategies which could be put in place to remedy the issue of school violence. Their responses are classified under the following themes:

Table 4
Students' opinions on the strategies to reduce school violence

Points	Frequency
Punishment	77
Effective Counseling	70
Strict School rules and regulations on violent behavior	61
Parental guidance	50
Sensitization in schools against violent behaviour	55
Dismissal	3

Effective Guidance Counseling: The majority of the respondents indicated that if guidance counselling is effectively implemented, it will go a long way to reduce violence. They were of the opinion that when teachers and the school administration notice signs of violence in students they should be sent to school counsellors. One of the respondents said, "counselling is one of the most effective strategies to reduce school violence. It is important to refer students who exhibit aggressive tendencies, perpetuate physical and sexual violence and suffer from violence to guidance counsellors. If counsellors handle these cases properly this will help to reduce and prevent future violent actions." Another respondent stated that guidance counsellors should carry out sensitization on the causes, impact and prevention of violence. This can be done during morning assemblies, club activities or in the classrooms."

Rehabilitation programmes: Some respondents indicated that there is a need for rehabilitation programmes for students who are into drugs and those who exhibit violence. One of the respondents said, "access to mental health facilities and rehabilitation centers is necessary for drug abusers because they need serious help. When students take drugs, they commit violent acts without any sympathy and punishment alone cannot help because they are already addicted. Therefore, the only way out is a rehabilitation programme".

Parental involvement: It was realised that a good number of the respondents indicated that school violence can be managed by involving parents when seeking for solutions. One of the respondents reported that, "parents can play a key role in preventing and addressing violent behavior by monitoring their children's behavior and communicating with school staff about potential issues." Another one indicated that "there is no way school violence can be effectively managed without collaborating with the parents, schools must work with parents in handling violence."

Positive school climate: Some of the respondents indicated that one of the ways to reduce violence in school is to build a positive school climate. This should be void of tension, especially between students and teachers. As stated by one of the respondents, "teachers should build positive relationships with students and encourage students to feel comfortable reporting concerns or problems to them. At times, the manner in which teachers handle students' problems instead aggravates tension in the classroom setting. Some abuse students' personality traits, and some openly discriminate between their students. Teachers should learn to treat students fairly."

Safety programmes: Some of the respondents indicated that it will be necessary to introduce some safety programmes which can help students learn how to interact with others and solve problems using non-violent methods. Some indicated that these programmes could be introduced at the junior level or incorporated into the guidance programme. One of the comments from a respondent was, "at times, children exhibit violence because they do not know how to manage their emotions or to solve problems in non-aggressive ways. If a safety programme is introduced in secondary schools, especially, in Forms 1 and 2, it will help students to learn other ways of handling anger and developing positive behaviour towards others."

Discipline: A good number of respondents indicated that there is a need for schools to put up internal disciplinary measures which are all given to students during admission and they must sign to respect those rules. One of them reported that, "One of the best ways to prevent violence in school is to document disciplinary measures on violent acts which must be read and signed by each student during admission or at the beginning of each year. This will create some awareness in the students on what type of sanctions await them if they are caught in any violent actions."

5. Discussion of Findings

The findings of this present study demonstrate that the causes of school violence are diverse stemming from the family, community, media and the school environment. One of the main causes, as reported by the students, teachers and administrators, is the issue of inadequate parental supervision and control. This shows that parents have a great role in children's behaviour. This is an indication that some parents use laisser-faire or neglectful parenting styles, which allow children to do whatever they like without control. At an early age of development when children exhibit aggressive behaviours like hitting or beating, fighting, biting, abusing and talking back at others, some parents do not punish nor educate these young ones on these negative behaviours on the basis that there are still children. Some of these children internalise these behaviours and manifest them in school. The findings align with the views of Nelson et al. (2007), who state that the absence of appropriate parental supervision is a strong predictor of violent behaviour among students. Inadequate parental supervision of children's behaviour leads to a decline in family values. Another aspect of parenting that contributes to violent behaviour is inter-parental conflict which comprises disagreement, hostile interactions, aggressive communication patterns, disrespect, verbal abuses, fighting and destruction of property at home. Parental conflict exposes children to early traumatic violence which makes them to internalise violence as a way of solving problems. Some of these parents fight in the presence of children, exchange abusive words and constantly shout at the children. Children consider their parents as models as indicated by the social learning theory of Bandura (1977). All these are indications that a violent family is a strong predictor of violent behaviour among the children.

One of the leading causes of violent behaviour among students today as indicated in the present study is exposure to violence in the communities and social media. When children watch violent films, especially when the consequences are "rewarded," they enjoy it, and in turn, practice it. Behavioural psychologists state that violent behaviour is learned through observations and interaction with the physical and virtual environment. This corroborates with the findings of the American Psychological Approach (2013) and Anderson, et. Al. (2003) which maintain that the effects of viewing violence on television especially among young children is a potential cause for aggressive behaviour. Today, many students in secondary schools have access to social media where they watch violent behaviours. Some of these children enjoy these actions and take delight in modeling some of the characters. This is worse when they watch war movies where at the end of the day, the hero who happened to have killed so many persons is being hailed. This acts as a source of motivation to most young people who desire to be considered heroes and also feared among their mates.

The findings also indicate that drug consumption is also a leading cause of violence among secondary school students. Drug abuse motivates students to carry out violent acts without fear. Students who take drugs develop negative courage and a feeling that they are above the school rules and regulations. This gives them the latitude to retaliate with violence when the school personnel try to discipline them whenever they go out of norms. This study confirms the findings of Agatston et al. (2015), who indicate that one of the main causes of violent behaviour among young people is substance abuse which push them to carry out violent acts without any regret. It was also realized that teachers' attitude is one of the contributing factors to violent behaviour among students. Teachers tend to use derogatory words on students and corporal punishment to modify their behaviour. They use expressions like *'Good for nothing, 'Empty head', 'yam,' and 'you fool'.* Some of these words push students to react with aggression. Some teachers beat students mercilessly. Some even boast about this negative treatment after meting it out on their students. Some teachers punish students unjustly or bully them either physically or sexually. When students are fed up with these negative attitudes from their teachers, they eventually build resistance which culminates into violent behaviour. Students behind their hurt pride plan and beat up their teachers on campus or after school in order to settle scores. Some abuse and scandalise the teachers in the community without fear of reprimand.

Concerning the strategies proposed to manage school violence, the students, teachers and school administrators emphasized on effective counselling and sensitization. There is need for some of these students who perpetuate violence to go through an effective counselling process and rehabilitation. Counsellors can help identify children who are at risk, and intervene when a concern occurs which could eventually lead to violence. At times

students who exhibit violence are automatically dismissed from schools without any rehabilitation. These students as a mode of reprisal form gangs and attack other students, teachers and administrators. In this way, they become a serious threat to the school milieu and the immediate community. Counsellors should consider involving parents in some of their counselling sessions to increase communication and shared responsibility. Sensitization which could be done by diverse stakeholders most especially Guidance Counsellors under the umbrella of group guidance talks can be given on the risk factors of violent behaviour and building of positive interpersonal relationship. One of the problems which may hinder counsellors to effectively handle violence in schools is the counsellor-student ratio which is about 1: 600 in most public secondary schools in Cameroon.

Also, one of the strategies proposed in this study is to build a positive school climate where students feel safe, love and protected by their teachers and school administrators. Though it is important for teachers to discipline or punish students in order to modify negative to positive behaviour, there is need to treat students with dignity, show unconditional positive regard, genuineness and empathy as suggested by Carl Rogers (1959) in his counselling theory as cited in Austard (2009). This is supported by the findings of Volungis & Goodman (2017) who emphasize on the importance of building a positive teacher-student relation as one of the best strategies in preventing school violence. The findings also indicate that one of the ways to manage school violence is to set strict rules on deviant behaviour. Some propose that there is need to punish the perpetrators though the punishment should be commensurate to the crime as opined by Skinner in his theory of operant conditioning cited in Mueller & Nkosi, (2017). Though this is a good strategy it should be noted that some students indicated that the use of corporal punishment is one of the causes of violence. Therefore, punishment especially corporal should be used with caution and restraint in the school settings.

6. Conclusion

School violence as presented in this study, is a consistent contemporary challenge in most school settings in Cameroon. It is an issue that has been severally raised in academic circles, publicly debated by policy makers and attended to with measures by the state as well as different education stakeholders. In spite of these engagements, the results have not been satisfactory. The findings of this study revealed that the causes of school violence revolve around inadequate parental supervision and control; substance abuse; exposure to community and media violence; teachers attitudes toward students and the use of corporal punishment. This implies that the predicting factors of school violence oscillate around the family, community and the school environment. Though schools are ordained to disseminate knowledge, they also have as one of their critical missions to shape and socialize learners towards responsible and empathetic behaviour. To fully achieve this role, the school system has relied on the support provided to the learners in the family and community social structures. The failure by the family and community stakeholders to complement the schools in promoting character formation exposes the schools to all types of violence. Faced with this exigency and in order to maintain an environment conducive for learning, it is necessary for the school management to initiate and sustain all such strategies that could curb violence to the barest minimum in school milieus. This is given that violence is more or less a learned response and therefore, it can also be unlearned through school programmes, counselling services and appropriate family supervision. It is also a social and security threat that should be handled by the competent authorities. Regardless of the fact that violent behaviours for the most part are domesticated in the family and community set-ups, their mitigation stretches beyond these thresholds. The school as a pedagogic and administrative system can therefore respond to this through the following:

➢ Introduction of a Social Emotional Learning programme which focuses on developing self-awareness, self-control, anger coping strategies, interpersonal skills and positive relationships with members of classrooms and communities that are vital for school, work and life success.

➢ Increase the number of Guidance Counsellors and provide resources for them to effectively carry out their functions.

➢ Complement Guidance Counsellors with Psychologists (Educational psychologists) who have more specialized knowledge on students' developmental issues.

➢ Solicit security support mechanism from security agencies or national security depending on the size of the school and the scale of violence.

➢ Introduce a School violence code of conduct with compliance engagement letters outlining the categories of violent behaviour and their accompanying disciplinary sanctions to be signed by all students on admission.

➢ Educate teachers and other school officials on the importance of para counselling and the spirit of loco parentis.

➢ The school administration should develop a permanent collaborative dialogue with parents/guardians, teachers, school administrators and community leaders on civic and moral upbringing of children.

7. References

Agatston, P. W., Jacob, S. T., Alai, A., & Molnar, B. E. (2015). "The impact of school violence on mental health: A critical review of the literature". *Clinical Psychology Review*, *42*, 61-76.

American Psychological Approach, (2013). *Violence in the Media: Psychologists study potential harm.* Retrieved in December 2024 from https://www.apa.org/topics/video-games/violence-harmful-effects

Anderson, C. A., Carnagey, N. L. & Eubanks, J. (2003). Exposure to violent media: The effects of songs with violent lyrics on aggressive thoughts and feelings. *Journal of Personality and Social Psychology, 84*(5).

Austard, C. S. (2009). *Counselling and Psychotherapy Today: Theory, Practice, and Research.* New York: McGraw Hill

Bandura, A. (1977). *Social Learning Theory.* New York: General Learning Press.

Cameroon News Agency March. (2024). "A student stabbed by classmate". Reported by Charity Nginyu retrieved November 2024 from https://cameroonnewsagency.com/bertoua-student-fatally-stabbed-by-classmate/

Cameroon Radio and Television 7:30 News, (CRTV) web 28 March 2019.

Cameroon Radio and Television 7:30 News, CRTV web 14 January 2020.

Cameroon Radio and Television 7:30 News, CRTV web 15 September 2022.

Cameroon Radio and Television 7:30 News, CRTV web 6 April 2022.

CDC. (2017). "*Youth violence*". *Fact sheet*. Retrieved from https://www.cdc.gov/violenceprevention/youthviolence/factsheets/school_violence.html

Elliott, D. S. (2016). The effects of violence on children's development: A review of the literature. In R. J. McMahon & S. L. Vosburg (Eds.), *Trauma in the Lives of Children and Families: Innovative and Evidence-Based Practice.*

Ferrara, P., Franceschini. G., Villani, A., & Corsello. G. (2019). Physical, psychological and social impact of school violence on children. *Italian Journal of Pediatrics, 45*(1), 76. https://doi.org/10.1186/s13052-019-0669-z

Gupta, S. (2023). *How to prevent School Violence.* Verywell Mind retrieved from https://www.verywellmind.com>school-violence-types

MacNeil, G. (2002). "School bullying: An overview", ed. L. A. Rapp. Paglicci et al. (Eds), *in Handbook of Violence.* John Wiley and Sons

Maynard, B.R., Farina, A., & Dell, N.A. (2017). "*Effects of Trauma-informed approaches in schools: Protocol for a systematic review*. Campbell Collaboration". https://www.campbellcollaboration.org/library/effects-of-trauma-informed-approaches-in-schools.html

Mimi Mefo info 1 April (2022), Yaounde: *Student dismissed for assault on discipline mistress*. Retrieved in December 2024 from https://mimimefoinfos.com/

Mueller, M.M, & Nkosi, A. (2017). "*Behavioral Explanations of Aggression and Violence*". Wiley Online Library.

National Center for School Safety (2024). "*Back-to-school resources for staff*". https://firearminjury.umich.edu/mi-school-safety-initiative/

Nelson. J. L., Palonsky. S. B. & McCarthy. M.R. (2007). *Critical Issues in Education: Sixth Education.* Mc Graw Hill.

Patel, V., Araya, R., O'Loughlin, J., & Stein, D. J. (2017). Impact of exposure to traumatic life events on mental disorders: Systematic review and meta-analysis of longitudinal studies. *The Lancet Psychiatry,* 4(5), 357-365. doi:10.1016/S2215-0366(17)30021-1

Ranasinghe, P., Wathurapatha, W., Mathangasinghe, Y., & Ponnamperuma, G. (2017). Emotional intelligence, perceived stress and academic competence of Sri Lankan Medical undergraduates. *Medical Education 17*(1).

Reddy, M. G., Briggs-Gowan, M. J., et al. (2003). Bullying, aggression and emotional distress: The impact of exposure to community and school violence in urban youth. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*(6), 715-723

Sadler, S. R., & Bolen, C. A. (2010). The effects of violence on children: *A review of the literature. Social Work in Public Health,* 25(5), 479-492.

Smith, P. K., & Thomas, S. D. (2000). Predictors of school-based violence: An investigation of school level and community factors associated with student-reported weapon carrying and fighting. *Journal of Community Psychology,* 28(5), 541-561.

Smith, P. K., Brook, J. S., Gao, J., & Golberstein, E. (2019). Cyberbullying perpetration and victimization among adolescents in the United States, 2009-2015. *Journal of Adolescent Health, 64*(1), 19-24. https://doi.org/10.1016/j.jadohealth.2018.08.023

Smith, S. Lochman J, and Daunic A. (2005). Managing aggression using cognitive-behavioral interventions: state of the practice and future directions. *Behavioral Disorder, 30,* 227-240.

UNESCO (2023). *Framework for Action for the Prevention of Violence and Bullying in Schools and Education Systems.* Paris, France. https://unesdoc.unesco.org/ark:48223/pf0000366483

Vera, S., Wiysahnyuy, L. F., & Lo-oh, J. L. (2023). Relational Victimisation and the Psychosocial Maladjustment of Adolescents in Secondary Schools in Cameroon. *Education Quarterly Reviews*, *6*(1), 582-591.

Volungis, A. & Goodman, A. (2017). A School violence prevention: Teachers Establishing relationship with students using counseling strategies. *SAGE Open, 7*(1), 1-11. https://doi.org/10.1177/2158244017700460

Zhou, H., Wang, Q., Yu, S., & Zheng, Q. (2022). Negative parenting style and perceived non-physical bullying at school: the mediating role of negative affect experiences and coping styles. *International Journal of Environmental Research and Public Health, 19*(10), 6206. https://doi.org/10.3390/ijerph19106206

Kolaboratibong-resiprokal na interbensiyon sa pagtuturo: Pagpapaunlad sa komprehensiyon ng mga mag-aaral sa baitang 7

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Abstract

Comprehension plays a critical role in sufficient reading and understanding to achieve a successful learning process. This is one of the things that students must have to achieve an effective and thorough process of analyzing information in Filipino. This action-research aims to measure the effectiveness of the suggested intervention "Collaborative-Reciprocal Teaching Intervention" in increasing the comprehension level of students in grade 7. The researchers used Experimental Design to achieve its quantitative purpose. It was conducted in a selected secondary school under the division of Tacloban City. The researchers used the instrument aligned in Philippine Informal Reading Inventory Assessment Tool to measure the students' level of comprehension based on the pre-test and post-test. The results of the study showed that in the pre-test, the students' comprehension level was two levels lower (Grade 5) than the expected level (Grade 7). After the intervention was carried out, the results of the post-test showed that the students achieved the expected level of comprehension (Grade 7) which proves that the intervention was effective. The result also revealed a significant difference between the two variables using the Paired Sample T-test. The researchers recommend the use of such an intervention to increase the students' level of comprehension in Filipino and as a solution to this learning crisis.

Keywords: comprehension, reading, Filipino, Phil-IRI, intervention

Kolaboratibong-resiprokal na interbensiyon sa pagtuturo: Pagpapaunlad sa komprehensiyon ng mga mag-aaral sa baitang 7

1. Introduksiyon

Isang kritikal at pangunahing kahingian sa ika-21 siglong edukasyon ang pagkakaroon ng sapat na kakayahan sa pagbasa at mataas na antas ng komprehensiyon ng mga mag-aaral. Bahagi ito sa mga makrong kasanayan na dapat taglayin ng mga mag-aaral upang makamit ang matagumpay na proseso ng pagkatuto sa Filipino. Ayon kina Manoharan at Ramachandran (2023), ang mga indibidwal na mahusay sa pagbasa ay mahusay din sa pagproseso at pagsusuri ng impormasyon. Ibig sabihin, ang epektibong pag-unawa ay humahantong sa masusing pagtamo ng kaalaman. Katunayan, nakasaad sa Batas Republika 10533 o mas kilala bilang *K-12 Basic Education Program* ang pagpapaigting sa pundasyon ng mga esensiyal na kakayahan at kasanayan ng mga mag-aaral upang maging produktibo, mapanuri at makasabay sa modernong panahon.

Malaki ang papel na ginagampanan ng batayang kasanayan sa komprehensiyon ng mga mag-aaral dahil nakatutulong ito upang maunawaan ang mga impormasyong nakukuha o nababasa mula sa mga teksto, talakayan iba pang mga sanggunian. Dagdag pa, hindi lamang ito nauugat sa kakayahang umunawa, bagkus, saklaw din nito ang pagpapaunlad sa lawak ng bokabolaryo, epektibong pakikipag-komunikasyon at mapanuring pag-iisip. Ayon sa artikulo ng *East Washington University* (2022), ang kakayahang bumasa at umunawa ay masasabing ang pinakamahalagang kakayahan sa pagtuturo at pagkatuto. Ang isang mag-aaral na may kasanayan sa pag-unawa sa pagbabasa ay hindi lamang magkakaroon ng mataas na pagkakataon na maging isang masugid na mambabasa ngunit maging isang mas mataas na tagumpay na propesyonal sa halos lahat ng larangan ng kaalaman. Batay naman sa artikulo ng *Voyager Sopris Learning* (2023), ang komprehensiyon, lalo na ang pag-unawa sa pagbabasa, ay nagsisilbing pundasyon tungo sa tagumpay sa akademya sa lahat ng paksa. Ang mga kasanayan sa mahusay na pag-unawa ay nagbibigay-daan sa mga mag-aaral na *ma-access* at masuri ang impormasyon, makisali sa kritikal na pag-iisip, malutas ang mga problema, at makipag-usap nang mabisa.

Gayunpaman, nakikitaan ng mababang antas ang mga mag-aaral sa literasi hanggang sa kasalukuyan. Sa datos ng *Program for International Student Assessment o PISA* (2022), ika-77 lamang ang Pilipinas sa 81 na bansa, na nakakuha ng 347 na puntos sa *reading literacy* na nangangahulugang ang mga mag-aaral ay hindi nagtataglay ng batayang kakayahan sa pagbasa at komprehensiyon. Batay naman sa datos ng *World Bank* (2022) hinggil sa *learning poverty*, nasa 90 na bahagdan ng mga Pilipinong mag-aaral ang nahihirapan sa pagbasa at pag-intindi ng mga simpleng pangungusap sa Filipino. Sa inilabas na datos ng Kagawaran ng Edukasyon (2022), patuloy na napapansin ang mababang performans ng mga mag-aaral sa akademikong larang dahil sa kakulangan sa kakayahang umunawa nilalaman ng kanilang binabasa. Binigyang-diin sa papel-pananaliksik nina Abaigar et al. (2024), na mayroong mababang antas ng kasanayan sa pabasa at komprehensiyon ang mga mag-aaral sa Filipino dahil sa mga salik tulad ng kawalan ng kaalaman at eksposyur sa wika at kasalatan sa interes sa pagbabasa. Ayon naman sa pag-aaral ni Pumahing (2024), nakadadagdag sa pagbaba ng antas sa komprehensiyon ng mga mag-aaral ang kanilang kawalan ng kahandaang matuto sa pormal na pagbasa.

Dagdag pa rito, sa ulat ng *Department of Education Regional Office 8* (2022), sa bawat 10 na mag-aaral ay lumabas na 9 ang nagtataglay ng mababang antas ng pagbasa at komprehensiyon. Sa paunang pangangalap ng datos naman ng mga mananaliksik, kapansin-pansin sa isinagawang *Philippine Informal Reading Inventory* o Phil-Iri sa unang kwarter ng *Taong Panuruan 2024-2025* sa isang mataas na paaralan sa Lungsod Tacloban, halos 80% ng mga mag-aaral sa baitang 7 ay nabibilang sa *frustration level* at 20% lamang sa *independent level*. Kapansin-pansin din sa mga mag-aaral na may iilan na marunong magbasa ngunit hindi nila ito maipaliwanag sa sarili pagpapakahulugan o opinyon. Patunay ito na nananatiling malaking hamon at suliranin ang mababang literasi ng mga mag-aaral sa Pilipinas upang makamit ang tagumpay sa larangan ng edukasyon. Nangangahulugan lamang ito na kinakailangan ang isang mabisang estratehiya o interbensiyon upang matugunan ang kasalukuyang antas ng

pagbasa at komprehensiyon ng mga mag-aaral sa Filipino.

Ayon sa Kagawaran ng Edukasyon (2018), Ang *Phil-IRI* ay tumutukoy sa binagong *assessment tool* sa pagtatasa na binubuo ng isang set ng mga markadong sipi na ibinibigay sa buong klase at sa mga indibidwal na mag-aaral, na idinisenyo upang matukoy ang antas ng pagbabasa ng isang mag-aaral. Dagdag pa, ang naturang programa na ginamit bilang isang *tool* sa pagtatasa na nakabatay sa silid-aralan ay naglalayong sukatin at ilarawan ang pagganap o performans ng pagbasa ng mga mag-aaral sa parehong wikang Ingles at Filipino sa pasalitang pagbasa, tahimik na pagbasa at pag-unawa sa pakikinig. Ang tatlong uri ng pagtatasa ay naglalayong matukoy ang mga antas ng independyente, pagtuturo at pagkabigo ng mag-aaral. Katunayan, ang datos ng *Phil-IRI* ay magsisilbi ring isa sa mga batayan sa pagpaplano, pagdidisenyo/pagbabagong disenyo ng pagtuturo sa pagbasa ng mga guro at ng mga programa o aktibidad sa pagbabasa ng paaralan upang mapabuti ang pangkalahatang pagganap sa pagbasa ng paaralan.

Kaunay nito, naglunsad ang Kagawaran ng Edukasyon ng mga programang may layuning solusyunan ang mababang antas ng literasi ng mga mag-aaral dito sa Pilipinas. Isa na rito ang *Every Child a Reader Program o ECARP* noong 2011 na kung saan nilalayon nitong mabawasan ang kahirapan sa pagbasa at pagsulat ng mga mag-aaral sa paaralan. Mayroon din itong mga kagamitan sa pagtataya upang matukoy ang kasalukuyang antas ng pag-unawa at pagbasa ng mga bata. Naglunsad din ang Kagawaran ng Edukasyon ng programang *National Reading Program* noong 2023 bilang tugon sa mababang antas ng kasanayan sa pagbasa at pag-unawa. Nilalayon din ng programang ito na makapagbigay ng mga kasangkapan tungo sa de-kalidad na debelopment sa aspektong literasi ng mga mag-aaral sa Pilipinas.

Sa kabilang banda, inilunsad naman ng Kagawaran ng Edukasyon ngayong 2024 ang *"Catch-Up Fridays"* bilang pangunahing pagtuon sa pagpapabuti ng mga kasanayan sa pagbabasa. Ang programang ito ay idinisenyo upang baguhin ang *landscape* ng edukasyon, na tumutugon sa mga alalahanin tungkol sa mababang kasanayan sa pagbabasa ng mga mag-aaral na naka-haylayt sa mga *survey* ng estado at internasyonal. Subalit, sa kasalukuyan, talamak at kapansin-pansin pa rin ang mababang antas ng komprehensiyon ng mga mag-aaral dito sa Pilipinas. Paliwanag ni Padilla sa isang panayam sa Philstar (2024), hindi pa rin naging epektibo ang implementasyon nito dahil sa mayroon ding mga guro na naatasang magturo sa programa ay hindi nagtataglay ng batayang kasanayan sa komprehensiyon. Kaya naman, sa kasalukuyang pag-aaral ng mga mananaliksik ay nilalayon nitong magbigay-tugon sa naturang suliranin na nakabatay sa klasrum upang matutukan ang progreso ng mga mag-aaral sa aspektong literasi at komprehensiyon.

Sa proseso ng pagkatuto, maraming pamamaraan ang maaaring magamit ng mga mag-aaral upang mapaunlad ang kanilang antas ng komprehensiyon- isa na rito ang *Feynman Technique.* Ang pangunahing konsepto ng teknik na ito ay maunawaan ang isang komplikadong bagay sa pamamagitan ng paggamit ng simpleng pagpapaliwanag sa sarili (Csi, 2022). Tinukoy ni Carretero (2020), ang apat (4) na hakbang sa paggamit ng *Feynman Technique*; (1) Pumili ng paksa na nais mong pag-aralan, (2) Ipaliwanag sa sarili o Ipaunawa sa paraang maiintindihan ng isang bata, (3) Basahin muli ang materyal o handawt, at (4) Pagpapadali at ulitin ang ikalawang hakbang. Lumabas sa resulta ng pananaliksik nina Austria et al. (2024), na mabisa ang naturang teknik sa proseso ng pagtuturo at pagkatuto sa asignaturang Filipino.

Nilayon ng aksiyong-pananaliksik na ito na matugunan ang malaking suliranin pagdating sa pagbasa at komprehensiyon ng mga mag-aaral sa Filipino na nabibilang sa baitang 7. Iminungkahi ng mga mananaliksik ang Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo bilang isang makabagong teknik sa kolaboratibong pagkatuto at pagpapaunlad ng antas ng komprehensiyon ng mga mag-aaral sa Filipino na hango sa *Feynman Technique.* Isang pamamaraan na makatutulong sa pagpapalawak ng kaalaman at kaisipan ng mga mag-aaral tungo sa mabisang pagkatuto ng gramatika at retorika at panitikan bilang mga paksa sa naturang asignatura. Dagdag pa, mas mapataas ang antas ng komprehensiyon ng mga mag-aaral pagdating sa asignaturang Filipino upang makamit ang matagumpay na proseso ng pagtuturo at pagkatuto nito.

1.1 Layunin ng Pag-aaral

Nilayon ng aksiyong-pananaliksik na ito na mabigyan ng solusyon ang mababang antas ng batayang kakayahan ng mga mag-aaral sa pag-unawa sa Filipino gamit ang panukalang Kolaboratibong-Resiprokal na Interbensyon sa Pagtuturo. Nagsilbing tiyak na mga layunin ang sumusunod:

➢ Ano ang antas ng komprehensiyon sa pagbasa ng mga mag-aaral sa baitang 7 sa isinagawang *pre-test* batay sa Phil-Iri?

➢ Ano ang antas ng komprehensiyon sa pagbasa ng mga mag-aaral sa baitang 7 matapos isagawa ang interbensiyon sa isinagawang *post-test* batay sa Phil-Iri?

➢ May makabuluhang pagkakaiba ba ang resulta ng *pre-test at post-test* matapos isagawa ang interbensiyon sa mga mag-aaral sa baitang 7?

2. Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo

Nilayon ng aksiyong-pananaliksik na ito na mapaunlad ang komprehensiyon ng mga mag-aaral sa Filipino gamit ang **Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo**. Sa Kolaboratibong-Resiprokal na pagtuturo, ang mga mag-aaral ang mismong nangangasiwa sa kanilang pagkatuto o sa nilalaman (*content*) ng pinag-aaralan (Ballinger, 2013). Maiiugnay ito sa *Feynman Technique* na binigyang paglalarawan ni Adeoye (2023) na ito ay umiikot sa prinsipyong, kung kaya ng tao na ipaliwanag sa iba ang isang komplikadong konsepto sa mas simpleng paraan, himayin sa mas maliliit na bahagi, at ituro sa iba. Lumabas naman sa pag-aaral nina Reyes et al. (2021) na epektibo ang *Feynman Technique* bilang estratehiya para sa sariling pagkatuto ng mag-aaral. Kaya naman, ginamit ng mga mananaliksik ang estratehiyang nabanggit bilang pilosopiyang batayan sa pagbuo ng panibagong interbensyon.

Naiskatuparan ang interbensiyon sa pamamagitan ng pagpapangkat sa klase upang makamit ang kolaboratibong pagkatuto ng mga mag-aaral. Nilayon ng kolaboratibong pagkatuto na makamit ang ademikong tagumpay sa pamamagitan ng pagtutulungan ng mga mag-aaral at pagbabahagian ng mga kaalaman at ideya. Ang mga mag-aaral sa pangkat ay maaaring gumawa ng magkakahiwalay na mga gawain na nag-aambag sa isang karaniwang pangkalahatang resulta, o magtulungan sa isang nakabahaging gawain. Dagdag pa, ang mga *collaborative learning approach* ay may positibong epekto, sa karaniwan, at maaaring isang *cost-effective* na estratehiya para sa matagumpay na proseso ng pagkatuto ng mga mag-aaral.

Ayon kina Baker at Emerson (2014) sa resiprokal na pagtuturo sinasangkot ang mag-aaral sa pagbabasa at napatunayan na rin nagpapataas ito ng pag-unawa sa pamamagitan ng apat na pangunahing bahagi: ***Predicting, Clarifying, Questioning, Summarizing*** na ginamit na batayan sa magiging proseso ng paggamit ng Kolaboratibong-Resiprokal na: Hahatiin ang klase sa apat na grupo, ang bawat isa ay may nakaatas na gampanin. Ang una (G1) ay ang *Predicting Group*, Pangalawa (G2) ay *Questioning Group*, Pangatlo (G3) ang *Clarifying Group*, at Pang-apat (G4) ang *Summarizing Group*.

Predicting Group. Ang unang pangkat ay siyang inatasan para magtatala ng mga paunang kaalaman o hinuha kung tungkol saan ang kopya batay sa napansin mula sa pamagat, larawan, pagkakaayos ng teksto, at iba pa. Ang kanilang mabubuong paunang kaalaman ay magagamit din ng ibang pangkat upang mapagtagumpayan ang gampaning nakaatas para sa kanila. Ang *predicting group* mismo ang magbabahagi sa bawat kasapi ng pangkat hinggil sa kanilang paunang ideya na may kaugnayan sa kanilang kaalaman sa mga nagdaang talakayan sa nakuhang handawt o kagamitang pampagtuturo galing sa guro.

Questioning Group. Ang ikalawang pangkat ay siyang nagtala ng mga tanong tungkol sa binasang handawt o kagamitan galing sa guro, maaari rin direktang magtanong sa kagrupo. Ang mga tanong na nabuo ng pangkat ay mayroong malaking papel na gagampanan sa pagbabahagian upang malinawan ang bawat isa. Dagdag pa, kinakailangan na ang mabubuong mga tanong ng pangkat ay makatutulong tungo sa pagkamit ng mas

komprehensibong pag-unawa at pagkatuto sa akda at/o handawt na binasa o nakuha mula sa guro.

Clarifying Group. Ang ikatlong pangkat naman ay inatasan upang maghalungkat sa mga salita at konseptong mahirap unawain o hindi pamilyar para sa kanila. Ang naturang pangkat ay maaaring gumamit ng diksyunaryo o iba pang sanggunian nang sa gayon ay tama o angkop ang kanilang maibigay na pagpapakahulugan sa mga napiling salita o konsepto. Dagdag pa, makatutulong ito nang sa gayon ay mabigyang-linaw din ang ibang mga mag-aaral hinggil sa mga salita, parirala o konseptong mahirap unawain sa tekstong binasa.

Summarizing Group. Ang ikaapat na pangkat naman ng siyang inatasan upang ibuod ang mga mahahalagang detalye at kaisipang naunawaan sa binasang teksto. Dito rin nasukat kung papaano naunawaan ng mga mag-aaral ang kanilang binasang teksto sa pamamagitan ng pagbabahagian sa mga kasapi at pagtutulungan upang humantong sa pagkakaroon ng isang ideya at kaalaman hinggil dito.

Ang guro ay umikot sa bawat grupo upang *i-monitor* ang mga iniatas na gampanin, maaaring magtanong ang guro. Bawat linggo ay nagpalit ng gampanin ang bawat grupo, mayroong apat na ikot (*rotation of roles*). Sa huli, ay susukatin ang pagiging epektibo ng *Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo* sa pamamagitan ng *post-test*. Magkakaroon din ng mga lingguhang pagtataya habang isinasagawa ang interbensiyon upang matala ang progreso ng mga mag-aaral sa bawat linggo. Paghahambinging ang dalawang magkaibang iskor *(pre-test at post-test)* gamit ang *Paired Sample T-test* upang masukat ang makabuluhang pagkakaiba nito.

Balangkas ng Pag-aaral
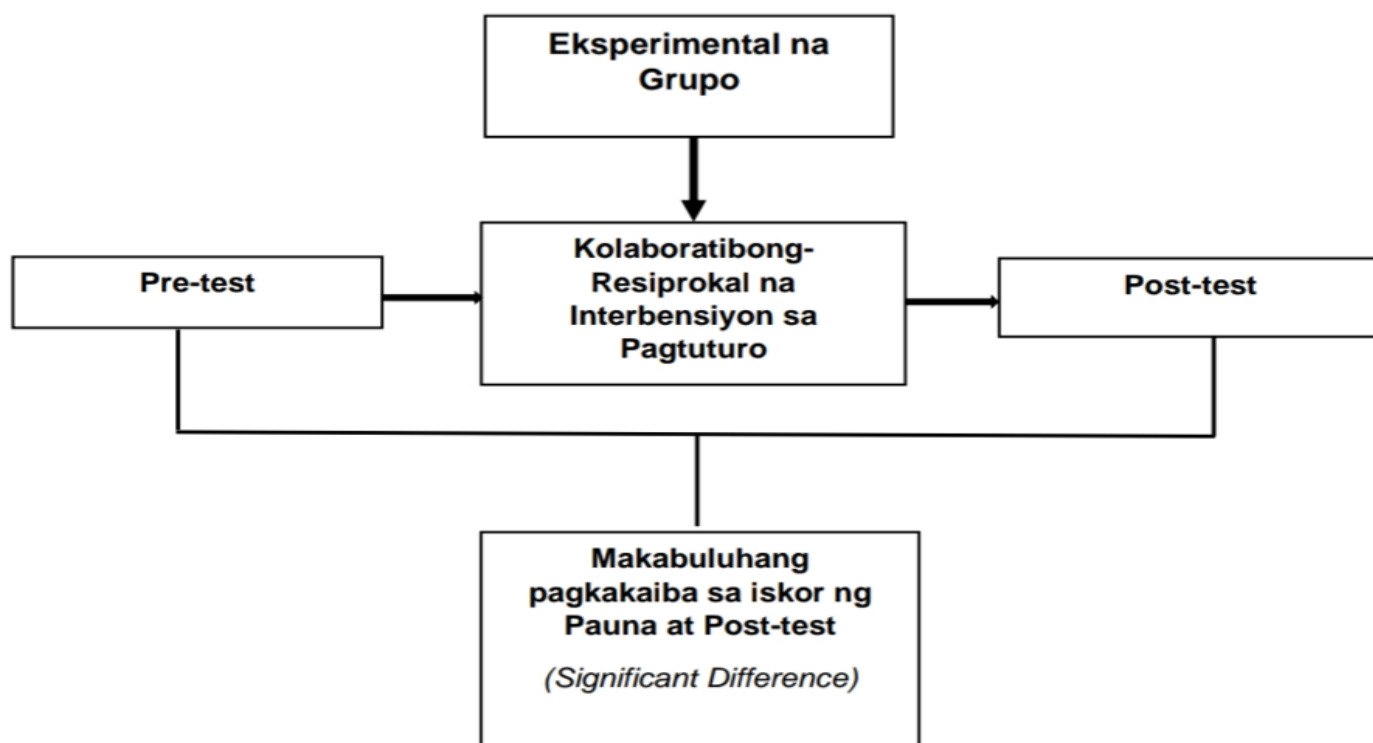
Figyur 1. Balangkas ng Pag-aaral

Ang ugnayan ng mga teoryang *Constructivism ni Fosnot (1989), Zone of Proximal Development* ni Lev Vygotsky (1934), at *Heutagogical Theory* nina Hase and Kenyon (2013), sa pag-aaral na ito ay nagbigay-diin sa kahalagahan ng papel ng mag-aaral sa kanilang sariling pagkatuto. Ang *Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo* ay isang mabisang paraan na nagbigay-daan para suportahan ang bawat mag-aaral sa pagkatuto tungo sa mas aktibong pakikilahok sa talakayan, pagpapataas ng kumpyansa sa sarili, pagtaguyod ng kaalaman, at pag-unlad ng mga mag-aaral sa asignaturang Filipino. Dagdag pa, ipinakita rin sa bahaging ito kung paano pinagsama-sama ang mga ibat-ibang teorya upang suportahan ang pag-aaral at upang masuri ang epekto ng

interbensyong ginamit.

Ang *Constructivism Theory* ay binuo ni Catherine Twomey Fosnot na kilalang teorista sa pag-aaral ng pagtuturo at pagkatuto. Malaki ang kanyang naging kontribusyon sa teoryang constructivism sapagkat sa teoryang ito binigyang-diin na ang mga mag-aaral ay may kakayahang bumuo ng kanilang sariling kaalaman at pag-unawa batay sa kanilang karanasan at interaksyon sa paligid. Dagdag pa, ang Constructivism ay nakasalalay sa kakayahan nitong gawing mas makabuluhan ang pag-aaral. Kapag aktibong nakikisangkot ang mga mag-aaral sa talakayan, mas malamang na matatandaan at mauunawaan nila ang impormasyon.

Samantala, ang *Zone of Proximal Development* ni Lev Vygotsky (1934), binigyang-diin na ang isang mag-aaral ay natututo dahil sa gabay at tulong ng mga nakatatanda at kalauna'y magiging malaya sa pagkamit ng mga bagong kaalaman tungo sa pansariling pagkatuto. Binigyang-linaw din sa teoryang ito na mahalaga ang boung suporta ng guro at gabay upang makamit ang antas ng kaalaman at mabigyan ng pagkakataon ang bawat mag-aaral na matuto sa sarili nitong pagsusumikap. Ang konsepto ng teoryang ito ay mayroong malaking ambag upang suportahan ang pag-aaral, sapagkat binigyang-diin sa pananaliksik na ito na matukoy ang lebel ng kaalamang ng bawat mag-aaral sa tulong ng Kolaboratibong-Resiprokal na Interbensyon sa Pagtuturo.

Ang *Heutagogical Theory* ay binuo nina Hase at Kenyon (2013). Binigyang-diin sa teoryang ito ang proseso ng pag-aaral na kung saan ang mag-aaral ay nangunguna o nagpapatnubay sa kanyang sariling pagkatuto. Nilinaw nila, na ito ay isang paraan ng pag-aaral kung saan ang mag-aaral ay may malaking kontrol sa kanilang sariling pagkatuto, kung saan sila ang nagtataguyod ng kanilang sariling interes na matuto. Ang paggamit ng Kolaboratibong-Resiprokal na Interbensyon sa Pagtuturo ay nagbibigay-daan para sa mga mag-aaral na maging aktibo sa kanilang sariling pagkatuto sa asignaturang Filipino.

3. Metodolohiya

Disenyo ng Pag-aaral - Ang kwantitatibong pananaliksik na ito ay ginamitan ng disenyong *experimental design* kung saan ang iisang grupo ng mga kalahok ay sinukat ang antas ng komprehensiyon bago at pagkatapos sumailalim sa interbensiyon. Ang disenyong ito ay angkop sapagkat nais malaman ng pag-aaral ang epekto ng isang tiyak na interbensiyon sa komprehensiyon ng mga mag-aaral. Sa ganitong disenyo, ayon kay Fisher (1920), ito ay kadalasang ginagamit sa pananaliksik sa edukasyon kung saan ang mga limitasyon sa lohistika ay naglilimita sa randomisasyon.

Lokal ng Pag-aaral - Ang pag-aaral na ito ay isinagaw sa isa mga paaralan sa Tacloban City Division. Ang nasabing paaralan ay may sapat na bilang na mag-aaral na nasa *Junior High School* na nabibilang sa Baitang 7. Ang paaralan na napili ay ang pinakaangkop na lokal sapagkat ito'y nakapagbigay ng sapat at mayamang datos para sa isasagawang pag-aaral batay sa paunang pangangalap ng datos ng mga mananaliksik. Ang naturang paaralan ay kinabibilangan ng mga mag-aaral na may mababang antas ng kasanayan sa pagbasa at komprehensiyon batay sa *Phil-Iri* nito.

Kalahok ng Pag-aaral - Ang naging kalahok ng aksiyong-pananaliksik na ito ay mga mag-aaral na nabibilang sa Baitang 7 sa isang piling paaralan sa Tacloban City Division. Batay sa paunang pangangalap ng datos ng mga mananaliksik, lumabas na 80% ng mga mga mag-aaral sa Baitang 7 ay nabibilang sa *frustration level* na antas ng kakayahan sa pagbasa at komprehensiyon. Ibig sabihin, ang mga naturang mag-aaral sa Baitang 7 ay walang batayang kasanayan sa literasi sa kabila ng mga programang inilunsad ng Kagawaran ng Edukasyon.

Paraan ng Pangangalap ng Datos - Ang sumusunod ay ang mga hakbang sa ginawang pangangalap ng mga datos ng mga impormasyon upang lubos na maunawaan ang saklaw ng pag-aaral at matiyak ang kalidad ng presentasyon ng datos.

Pre-test – Ang pre-test ay sumusukat sa pag-unawa ng mga mag-aaral bago magbahagian ng mga ideya at kaalaman sa kanilang miyembro. Ang mga mananaliksik ay pinangasiwaan ang *pre-test* sa simula ng klase upang

masuri ang pag-unawa ng mga mag-aaral. Ginamit ang *pre-test* ay matutukoy ang kasalukuyang antas ng komprehensiyon o pag-unawa ng mga mag-aaral sa baitang 7 bago isagawa ang interbensiyon ng mga mananaliksik. Habang nagkakaroon ng implementasyon sa mungkahing interbensiyon.

Post-test – Pagkatapos ng interbensyon, binigyan ng mga mananaliksik ang mga mag-aaral ng *post-test* upang malaman kung nagkaroon ba ng pagbabago ang kanilang antas ng komprehensiyon. Ang layunin ng *post-test* ay upang masuri ang pag-unlad ng mga mag-aaral sa pag-unawa sa isang teksto sa pamamagitan ng pakikipagtulungan sa kanilang mga miyembro ng grupo. Ang mga mananaliksik ay gagamit ng mga pamantayan sa pagkolekta ng datos. Ang mga nakalap na datos ay ang mga marka mula sa bawat pamantayan mula sa buong klase. Ang mga marka ng pamantayang ito ay gagamitin upang matukoy ang mga pagbabago sa antas ng komprehensiyon ng mga mag-aaral sa Baitang 7.

Paraan ng Pagsusuri ng Datos - Matapos ang lahat ng proseso ng pangangalap ng datos ay tiniyak ng mga mananaliksik na maayos ang pagkakatala ng mga ito bago isailalim sa pagsusuri. Ang mga mananaliksik ay sumangguni sa isang estadistiko upang magsagawa ng pagsusuri sa mga datos na nakalap. Ito ang nagpatibay sa kredibilidad ng mga resultang lumabas sa pag-aaral.

Tritment sa Pre-Test at Post-Test. *Ang* datos na nakuh mula sa isinagawang *pre-test at post-test* batay sa *Phil-Iri* ay ginamitan ng *Mean o Average* na pormula upang makuha ang pangkalahatang iskor para sa lahat ng mga mag-aaral bilang sabjek ng kasalukyang aksiyong pananaliksik. Ang *mean* ay tumutukoy sa *average* ng lahat ng datos na nakalap. Ang naturang iskor ay makukuha sa pamamagitan ng pagdadagdag sa lahat ng datos at *i-dididvide* sa kung ilan ang nakuhang datos (Byjus, n.d.). Ang mga datos na nakuha mula sa iba'i ibang baryabol nung isinagawa ang pag-aaral ay isinailalim sa *statistical analysis* upang makita ang Kabisaan ng *Kolaboratibong-Resiprokal na Interbensiyon* sa Pagtuturo ng asignaturang Filipino. Kaya naman, ginami ang *Paired Samples T-test* upang masuri ang mga datos na nakalap mula sa *pre-test* ng buong pangkat, dito natuko kung mayroong makabuluhang pagkakaiba *(significant difference)* sa nakuhang iskor ng buong pangkat tungo sa *post-test*.

4. Resulta at Pagtalakay

4.1 Antas ng Komprehensiyon ng mga Mag-aaral batay sa Pre-Test

Ang batayang kasanayan ng mga mag-aaral sa komprehensiyon ay maituturing na kahingian upang makamit ang matagumpay na edukasyon. Itinuturing ng mga eksperto sa larangan ng edukasyon ang komprehensiyon ng isang indibidwal bilang instrumento at pinakamahalagang kakayahan na dapat taglayin ng isang tao upang makaunawa at makipagtalastasan (East Washington University, 2022). Sa bahaging ito, sinukat ng mga mananaliksik ang kasalukuyang antas ng komprehensiyon ng mga mag-aaral batay sa *pre-test* ng *Phil-Iri* upang matamo ang unang layunin ng aksiyong-pananaliksik na ito. Makikita sa ibaba ang talahayanan ng mga iskor na nakuha ng 30 na mag-aaral mula sa eksperimental na grupo.

Talahanayan 1

Antas ng komprehensiyon ng mga mag-aaral sa baitang 7 batay sa pre-test

Eksperimental na Grupo				
Iskor	Bilang	Bahagdan	*Grade Level Passage*	Antas
14-20	0	0%	Grade 7	*Independent*
8-13	19	63.33%	Grade 5	*Instructional*
0-7	11	36.67%	Grade 4	*Non-reader to Frustration*
Kabuuan	30			
Mean	8.30		Grade 5	*Instructional*

Makikita sa *Talahanayan* 1 ang antas ng komprehensyon ng mga mag-aaral sa Baitang 7 batay sa resulta ng *pre-test* gamit ang *20-item* na *Phil-IRI assessment tool*. Ang datos ay nagsasaad na walang mag-aaral (0) ang umabot sa antas ng *Grade 7* sa *pre-test*. Ipinapakita nito na walang mag-aaral ang may kasanayan sa pagbabasaat

pag-unawa na naaayon sa kanilang baitang. Labing-siyam **(**19**)** sa 30 mag-aaral ang may iskor na 8–13, na nangangahulugan nasa Baitang 5 sa antas ng pagbasa. Ipinapakita nito na karamihan sa mga mag-aaral ay may kakayahang pangkomprehensyon na nasa dalawang baitang na mas mababa kaysa sa kanilang kasalukuyang antas. Labing-isa (11) naman ang nakakuha ng iskor na 0-7, na tumutumbas sa antas ng Baitang 4. Sa kabuuan, ang *mean score* ng buong pangkat ay 8.30, na nagpapakita na ang pangkalahatang antas ng komprehensyon ng eksperimental na grupo ay tumutugma sa antas ng Baitang 5 na nangangahulugang nabibilang sila sa *Instructional Level*. Ang *Phil-IRI score-to-grade-level equivalency* ay ginamit upang maipakita ang kaugnayan ng iskor sa antas ng komprehensiyon. Ang iskor na 0–7 ay tumutugma sa tatlong antas na mas mababa (Baitang 4), ang iskor na 8–13 ay tumutugma sa dalawang antas na mas mababa (Baitang 5), at ang iskor na 14–20 ay tumutugma sa kasalukuyang antas ng mag-aaral (Baitang 7). Ginamit din ang *Phil-Iri comprehension level* sa pagtukoy sa kanilang antas ng komprehensiyon batay sa nakuhang iskor ng eksperimental na grupo.

Batay sa mga resulta, ipinapakita ng datos na walang mag-aaral ang nasa kasalukuyang antas ng komprehensyon (Baitang 7). Sa halip, 63.33% ng mga mag-aaral (19 sa 30) ang nasa antas ng komprehensyon ng Baitang 5, samantalang 36.67% (11 sa 30) ang nasa antas ng komprehensyon ng Baitang 4. Malinaw na ang karamihan sa mga mag-aaral ay nangangailangan ng interbensyon upang mapunan ang kakulangan sa kanilang kakayahan sa pagbasa at pag-unawa at upang maitaas ang kanilang antas ng komprehensyon nang naaayon sa kanilang kasalukuyang baitang.

4.2 Antas ng Komprehensiyon ng mga Mag-aaral batay sa Post-Test

Sa bahaging ito naman, sinukat ng mga mananaliksik ang kasalukuyang antas ng komprehensiyon ng mga mag-aaral batay sa *post-test* ng *Phil-Iri* pagkatapos isagawa ang mungkahing interbensyon ng mga mananaliksik. Ito ay upang matamo ang ikalawang layunin ng aksiyong-pananaliksik na ito. Makikita sa ibaba ang talahayanan ng mga iskor na nakuha ng 30 na mag-aaral mula sa eksperimental na grupo sa isinagawang *post-test.*

Talahanayan 2

Antas ng komprehensiyon ng mga mag-aaral sa baitang 7 batay sa post-test

	Eksperimental na Grupo			
Iskor	Bilang	Bahagdan	*Grade Level Passage*	Antas
14-20	17	56.67%	Grade 7	*Independent*
8-13	13	43.33%	Grade 5	*Instructional*
0-7	0	0%	Grade 4	*Non-reader to Frustration*
Kabuuan	30			
Mean	13.57		Grade 7	*Independent*

Makikita sa *Talahanayan 2* ang antas ng komprehensiyon ng tatlumpung mag-aaral (30) sa baitang 7 batay sa isinagawang *post-test*. Mayroong pitumpung (17) mag-aaral ang nakakuha ng pinakamataas na iskor na labing-apat hanggang dalawampu (14-20). Habang ang mga nakakuha sa sunod na iskor (8-19) ay nasa labing tatlong mag-aaral. Samantalang walang nakakuha sa natitirang mga iskor (0-7). Sa pangkalahatang iskor ng klase, nagtala naman ng mean score na 13.57 na tumutugma sa antas ng ikapitong baitang na nangangahulugang ang mga kalahok ay napabilang sa *Independent Level*. Ipinapakita nito na sa kabuuan, ang mga mag-aaral ay may antas ng komprehensiyon na naaayon sa kanilang baitang. Ang resulta ng *post-test* ay nagpapakita na karamihan sa mga mag-aaral (56.67%) ay nakapasa sa antas komprehensiyon ng mga nasa baitang 7, samantala ang natitira (43.33%) ay nasa antas ng ikalimang baitang. Ang nakitang pag-angat sa iskor ay indikasyon na nakitaan ng positibong epekto ang paggamit ng Kolaboratibong-Resiprokal bilang interbensiyon sa pagpapaunlad ng komprehensiyon ng mga mag-aaral sa baitang 7.

4.3 Makabuluhang Pagkakaiba ng Pre-Test at Post-Test

Sa bahaging ito naman, makikita sa ibaba ang talakayan hinggil sa makabuluhang pagkakaiba ng mga iskor na nakuha ng mga mag-aaral mula sa eksperimental na grupo sa *Pre-Test* at *Post-Test* nito. Sumangguni ang mga

mananaliksik sa isang estadistiko upang matiyak ang kaibahan ng dalawang baryabol. Makikita sa ibaba ang talahanayan ng resulta ng *Paired Samples T-test.*

Ang resulta ng iskor ng mga mag-aaral mula sa isinagawang *Pre-Test* at *Post-Test* matapos ang *Paired Samples T-test*. Ang resulta ng *Pre-test* (M= 8.30, SD= 2.10) at *Post-test* matapos isagawa ang panukalang interbensiyon ng mga mananaliksik na Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo (M=13.57, SD= 1.99) ay mayroong makabuluhang pagkakaiba t(29) at p <.001. Nagpapatunay lamang ito na naging epektibo ang naturang interbensiyon sa pagpapataas ng antas ng komprehensiyon ng mga mag-aaral sa Baitang 7.

5. Pagtalakay

Lumabas sa resulta ng aksiyong-pananaliksik na ito na sa isinagawang pre-test ng mga mananaliksik ay hindi nagtutugma ang kasalukuyang antas ng komprehensiyon ng mga mag-aaral sa eksperimental na grupo sa kanilang baitang. Sa nakuhang mean na 8.30 ng eksperimental na grupo, natuklasan ng mga mananaliksik na mas mababa ng dalawang lebel ang kasalukuyang antas ng mga kalahok (Baitang 5) at nabibilang sila sa Instructional na antas. Dagdag pa, walang mag-aaral sa eksperimental na grupo ang nabibilang sa Baitang 7 na lebel at Independent Level batay sa kanilang antas ng komprehensiyon. Nangangahulugan lamang ito na kinakailangan ng interbensiyon upang mas mapataas ang kanilang antas ng batayang kasanayan sa komprehensiyon.

Batay naman sa resulta ng pananaliksik nina Abaigar et al. (2024) na mayroong mababang antas ng kasanayan sa pabasa at komprehensiyon ang mga mag-aaral sa Filipino dahil sa mga salik tulad ng kawalan ng kaalaman at eksposyur sa wika at kasalatan sa interes sa pagbabasa. Ayon naman sa pag-aaral ni Pumahing (2024), nakadadagdag sa pagbaba ng antas sa komprehensiyon ng mga mag-aaral ang kanilang kawalan ng kahandaang matuto sa pormal na pagbasa. Lumabas din sa World Bank (2022) hinggil sa learning poverty, nasa 90 na bahagdan ng mga Pilipinong mag-aaral ang nahihirapan sa pagbasa at pag-intindi ng mga simpleng pangungusap sa Filipino.

Lumabas naman sa isinagawang post-test ng mga mananaliksik matapos ang implementasyon ng panukalang interbensiyon na "Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo" na nagkaroon ng pagbabago sa kanilang lebel o antas ng komprehensiyon. Sa kabuuang mean na 13.57, nangangahulugan lamang ito na ang mga mag-aaral ay nabilang na sa baitang 7 at independent level. Natuklasan ng mga mananaliksik ang malaking pagkakaiba ng iskor ng mga mag-aaral mula sa isinagawang pre-test at post-test bago at matapos isagawa ang panukalang interbensiyon. Mula sa nakuhang standard deviation sa pre-test na SD=2.10 at sa post-test naman na mayroong SD=1.99, nangangahulugan lamang ito na mas compressed at hindi nagkakalayo sa isa't isa ang iskor ng mga mag-aaral sa post-test kaysa sa pre-test.

Dagdag pa, nakitaan din ng pagbabago sa performans ng mga mag-aaral batay sa lingguhang pagtataya na isinagawa ng mga mananaliksik habang isinasagawa ang mungkahing interbensiyon. Mula sa 20 aytem na pagsusulit ay nakakakuha ng range of scores ang eksperimental na grupo ng 14-20 na nangangahulugang pasado batay sa grading matrix ng DepEd. Patunay lamang na mayroong pagbabago sa antas ng komprehensiyon ng mga mag-aaral matapos isagawa ang naturang interbensiyon. Ang resulta ng iskor ng mga mag-aaral mula sa isinagawang Pre-Test at Post-Test ay dumaan sa Paired Samples T-test upang masukat ang makabuluhang pagkakaiba ng dalawang baryabol. Ang resulta ng Pre-test (M= 8.30, SD= 2.10) at Post-test matapos isagawa ang panukalang interbensiyon ng mga mananaliksik na Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo (M=13.57, SD= 1.99) ay mayroong makabuluhang pagkakaiba t(29) at p <.001. Ibig sabihin nito na naging epektibo ang naturang interbensiyon sa pagpapataas ng antas ng komprehensiyon ng mga mag-aaral sa Baitang 7.

6. Kongklusyon at Rekomendasyon

6.1 Kongklusyon

Nilayon ng aksiyong-pananaliksik na ito na masukat ang antas ng komprehensiyon sa pagbasa ng mga mag-

aaral sa baitang 7 bago at matapos isagawa ang panukalang interbensiyon batay sa *pre-test at post-test* ng *Phiippine Informal Reading Inventory.* Dagdag pa, nilayon din ng mga mananaliksik kung mayroong makabuluhang pagkakaiba ng dalawang baryabol upang masukat ang kabisaan ng naturang interbensiyon tungo sa pagpapataas ng antas ng komprehensiyon ng mga mag-aaral sa Filipino.

Batay sa resulta ng pananaliksik, lumabas na walang mag-aaral ang nasa kasalukuyang antas ng komprehensyon (Baitang 7) kung saan ang *mean score* ng buong pangkat ay 8.3, na nagpapakita na ang pangkalahatang antas ng komprehensiyon ng grupo ay tumutugma sa antas ng Baitang 5. Matapos isagawa ang interbensiyon, natamo ng mga mag-aaral ang inaasahang antas ng komprehensiyon (Baitang 7) na mayroong *mean score* na 13.57. Matapos maisagawa ang interbensiyon, nakita na mayroong makabuluhang pagkakaiba ang resulta ng *pre-test* at *post-test*.

6.2 Rekomendasyon

Batay sa resulta ng interbensiyon, inirerekomenda ng mga mananaliksik ang sumusunod Bago magsimula ang klase, magsagawa ng unang pagpapabasa sa tekstong may kaugnayan sa paksang tatalakayin at pagkatapos ay maglaan ng oras na ipaliwanag ng mga bata kanilang nauunawaan sa binasang teksto. Nirerekomenda ng mga mananaliksik na Ppagkatapos ng talakayan ay magsagawa ng pagsusuri batay sa paliwanag na nabuo bago ang klase. Sa ganitong paraan ay malalaman nila kung wasto ang kanilang naunawaan o hindi.Maaari ring gumawa ng alternatibong paraan tulad ng pagbuo ng basa't suri kung saan, ang mga bata may magbabasa at magpapaliwanag ng kanilang naunawaan. Inirerekomenda rin ang paggamit ng Kolaboratibong-Resiprokal na Interbensiyon sa Pagtuturo sa pagpapataas ng komprehensiyon ng mga mag-aaral hindi lamang sa mga mag-aaral sa baitang 7 kundi pati rin sa ibang baitang.

6.3 Implikasyon at Limitasyon

Batay sa resulta ng aksiyong-pananaliksik, lumabas na naging epektibo ang panukalang interbensiyon ng mga mananaliksik na pataasin ang antas ng komprehensiyon ng mga mag-aaral sa Filipino na nabibilang sa baitang 7. Nangangahulugan lamang ito na ang naturang interbensiyon ay angkop na gamitin sa klasrum upang mapaunlad ang batayang kasanayan sa komprehensiyon. Subalit, saklaw lamang nito ang pagpapataas ng antas ng komprehensiyon ng mga mag-aaral. Hindi na saklaw ng interbensiyon ang pagpapaunlad ng ibang kasanayan tulad ng pagsulat, bokabolaryo at pagsasalita. Dagdag pa, hindi rin naging komprehensibo ang implementasyon dahil sa mga salik tulad ng limitadong oras sa klase, partisipasyon ng mga mag-aaral at timeline ng implementasyon ng aksiyong-pananaliksik.

7. Sanggunian

Abaigar, B., Galit, G., & Balderian, A. (2024). Eksploratoring pagsusuri sa kakayahan at salik na nakaaapekto sa komprehensiyon sa pagbasa sa filipino. *International Journal for Multidisciplinary Research.* https://doi.org/10.5281/zenodo.12216681

Austria, J., Atiga, C., Rico. L., & Cablao. J. (2024). Kabisaan ng Feynman Technique sa Pagtuturo ng Asignaturang Filipino.

Ballinger, S.G. (2013). Towards a cross-linguistic pedagogy: biliteracy and reciprocal learning strategies in French Immersion. J. Immers. Content-Based Lang. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10372393/

Byjus. (n.d.). *Mean.* Byjus Publication.

Carretero, A. (2020). Learn anything in 4 steps with the *Feynman Technique.* Kindle Edition.

Cook, T. & Campbell, D. (1979). Quasi-Experimental Design. Proceedings of the Survey Research Methods Section.

Csi. (7 March 2022). The *Feynman Technique* – the best learning method you've never heard of before. Computer Systems Institute.

DepEd. (2011). Every Child a Reader Program. Official Gazette of the Philippines.

DepEd. (2013). K-12 Basic Education Program. Official Gazette of the Philippines.

DepEd. (2018). Revised Philippine Informal Reading Inventory. TeacherPH.

DepEd. (2023). National Reading Program. Official Gazette of the Philippines.

DepEd. (2024). Catch-up Fridays Program. Official Gazette of the Philippines.

East Washington University. (2022). The Impact of Reading Comprehension on Learning. East Washington University.

Falcione, S., Munsterman, D., Joy, T., Kamtchum-Tatuene, J., Sykes, G., & Jickling, G. (2022). Association of Thrombin Generation with Leukocyte Inflammatory Profile in patients with Acute ischemic stroke. Neurology, 99(13), e1356-e1363.

Fosnot, C. T. (1989). Enquiring Teachers, Enquiring Learners: A Constructivist Approach to Teaching.

Hase, Stewart & Kenyon, Chris. (2007). Heutagogy: A Child of Complexity Theory. Graduate College of Management Papers. 4. 10.29173/cmplct8766.

Kondrat. S. (2024). 0 Main Benefits of Collaborative Learning. Educate Me.

Manoharan, A. & Ramachandran, S. (2023). Enhancing Reading Comprehension Skills of Prospective Teachers Using Suitable Reading Strategies. Journal of Language Teaching and Research. 14 (1). https://doi.org/10.17507/jltr.1401.06

Philstar (2024). With students' poor literacy, are all teachers now 'reading teachers'? Philstar global.

PISA (2022). PISA 2022 Results (Volume 1). Organization for Cooperation and Development.

Pumahing, J. (2024). Kasanayang Pagbasa sa Filipino ng mga Mag-aaral. Ignatian International Journal for Multidisciplinary Research. https://doi.org/10.17613/ybza-fy59

Reyes, E.P., Blanco, R.M.F.L, Doroon, D.R.L.,Limana, J.L.B., and Torcende, A.M.A. (2021). Feynman Technique as a Heutagogical Learning Strategy for Independent and Remote Learning. Recoletos Multidisciplinary Research Journal, 9(2). doi:10.32871/rmrj2109.02.06.

Shabani, et al. (2010) Vygotsky's Zone of Proximal Development: Instructional Implications and Teachers' Professional Development. Canadian Center of Science and Education 3 (4).

Stricklin, K. (2011). Hands-on reciprocal teaching: A comprehension technique. The Reading Teacher, 64(8), 620-625.

Voyager Sopris Learning. (2023). Comprehension: Defining the Key to Understanding. Voyager Sopris Learning.

World Bank (2022). Philippines Learning Poverty Brief. EduAnalytics.

The stranger: Meursault as the reflections of Albert Camus' Absurdism

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Abstract

This paper examines the Existential philosophy of Mersault in Albert Camus' The Stranger using Biographical Criticism. This paper offers fresh analysis of this novel as it deals with the life and experiences of Albert Camus as he portrayed Meursault as the reflection of his absurdism. This paper uses a Qualitative approach utilizing Textual analysis to examine the relationship between Albert Camus' life and philosophy and Meursault as the main character of his famous novel The Stranger. In addition, Biographical criticism was used as the main framework for analysis which shows that Mersault reflects the Absurdism of Albert Camus. With these findings, it is easier to identify Meursault's motives in his absurdity. Using biographical criticism in critiquing Albert Camus' *The Stranger*, the researchers found a significant relationship between the author's life experiences and the protagonist, Meursault's portrayal. This paper will surely help future researchers to scrutinize the reason behind Meursault's actions in the novel. In addition, this study will create new perspectives about the novel which is crucial in literary criticism and the philosophy of absurdism.

Keywords: Albert Camus, absurdism, biographical criticism, literary analysis, existentialism

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The stranger: Meursault as the reflections of Albert Camus' Absurdism

1. Introduction

The Stranger, published as *L'Étranger* by Albert Camus —a French author and philosopher in 1942, is a novel that digs the tension between individuality, social expectations, and the search for meaning in life. The novel centers around the protagonist, Meursault, a detached and indifferent man living in Algeria as he explores life with a sense of neglect to moral and ethical standards. The novel embodies the absurdism and moral ambiguity characteristics of his philosophical thoughts (Abdullah & Saksono, 2021). Furthermore, the author, Albert Camus, was considered to have a great contribution to literary life in post-war France. Camus suffered from tuberculosis during childhood and his closeness to death shaped him toward his philosophy. Camus' philosophy is sometimes conflicting and has gone through a serious growth. The main theme of his philosophy was questioning human existence and the worth of life. According to Mammadova (2024), absurd philosophy came from existentialism which highlights the struggle of an individual to identify the meaning of life in an average world. A person can create his own life purpose according to his actions and choices. He also notes that absurdists are always skeptical and involved in the societal struggle against people's abnormal views. However, Camus didn't consider himself a philosopher in the traditional sense but his work grappled with profound philosophical questions. He rejected systematic philosophy and rationalism; he prefers to express his core ideas through assertions, metaphors, and intensely personal reflections on life and death. Rejecting abstract theorizing, he emphasized lived experience as the foundation of his thinking.

Camus' deep understanding of absurdity is seen in a Sisyphus, struggling to roll a rock uphill, watching it roll down, then go down with it and push the rock to the top again. It was an endless cycle, which is a metaphor for the human condition. This highlights the challenges of looking for meaning and purpose in the face of life's inherent limitations and the ever-present threat of meaninglessness. He refers to this illogical situation between our curiosity to ask supreme questions and the difficulty of achieving any specific answer and called it *absurd*. He also did not identify himself as an existentialist yet; he presented the best-known existentialist questions during twentieth century, which creates *The Myth of Sisyphus*: "There is only one really serious philosophical question, and that is suicide". This question of suicide emerges directly from this sense of absurdity. Suicide is viewed as a potential escape from the absurdity of existence.

Although Camus modestly discussed his scholarly goals, he was self-assured sufficiently as a philosopher to articulate not just his personal views but also a critical analysis of modernity and religion. In order to address the life-or-death dilemmas that drove him, Camus built his own unique structure of ideas on the notions of absurdity and defiance, while rejecting the whole notion of a philosophical system. According to Williams (2015), Alice Kaplan (2016) inquisitive biographical review of Albert Camus entitled "Looking for The Stranger: Albert Camus and the Life of a Literary Classic"; reveals a strong link between his time in colonial Algeria and the separation from Meursault, who is the central character of "The Stranger". Camus' upbringing in a society that was heavily influenced by French colonial rule resulted in significant social and political conflicts, which made him susceptible to the injustices and inequalities of his time. It is probable that his exposure to the complexities of colonial life influenced his portrayal of Meursault's disengagement from social and political structures. By being indifferent, Meursault can be interpreted as reflecting Camus's observations and experiences of the absurdities and contradictions encountered during his time in colonial Algeria. The notion of absurdity, highlighting the meaninglessness of existence, may have been utilized by Camus to confront the realities of colonial society.

The Stranger by Camus serves as a detailed novel that relates on the theme absurd, which is central to most of his other works that suggest the pointlessness in human existence. Central to this exploration is the idea of absurdity. Camus' belief that life lacks inherent meaning and that individuals must navigate a chaotic world without clear purpose. According to Zileli (2005) in her analysis of absurdity in Camus and Beckett's novels, both authors

explore similar existential themes through their characterizations in the absurdist tradition. Zileli (2005) posits that despite their differing views on art, their thematic explorations share significant similarities, demonstrating how "The Stranger" is in line with larger literary trends that address how people fit into an uncaring universe.

In The Stranger, Camus demonstrates absurdism for "absurd" things by developing a persona who makes none of the classic life presumptions, unsociable aspirations, devoid of any theological or logical purpose in the cosmos. Meursault, who has no desire other than to have a straightforward, sensuous life, is guided by a number of prospect occurrences, to kill, and is sentenced to death. Thus, the novel is a representation of the 'absurd' . Then we would be getting familiarized with Existentialism, The whole theoretical development called existentialism talks about life as senseless, unimportant, there is no purpose behind it. It's full of anxiety and anguish which are incurable (Gnanasekaran, 1980).

Meursault's absurdist lifestyle and personal values cause complications throughout the novel.This might lead one to think Camus is showing and explaining the negative effect of ignoring and detaching to societal norms (Saadan & Al-Hasani, 2023). While society views Meursault as a heartless, senseless individual who comes to value his single guarantee—death—he believes that he is a simple man with few demands.According to Albert Camus, the idea of absurdism is more than just a philosophical construct. It significantly affects how we perceive our lives and how we make something out of it. We are freed from the obligation to live up to social norms and seek goals that are placed upon us by understanding the absence of inherent meaning in life. Rather, we are free to make our own meaning, enjoy the here and now, and see the absurdity and beauty of life itself. In the modern world, this focus on personal autonomy and the value of leading an authentic life is still a potent message.

In the study of Abdullah and Saksono (2021), they viewed Meursault (protagonist of *The Stranger*) as an absurdist. According to the authors, Meursault is incapable of finding meaning in life in a meaningless universe. Interpretations of Meursault's character in the stranger vary widely, according to various critics. Some view him as a sincere but naive individual, while others interpret him as a more troubling archetype—the contemporary mass man. According to Zileli (2005), the interpretation of Meursault as a reflection of innocence and sincerity in a chaotic world underscores how personal preconceptions shape critical analyses. This notion aligns with the idea that readers' subjective experiences significantly influence their understanding of the text, as noted by multiple scholars in the field. Camus' concept of the absurd instead implored people to accept life's lack of meaning and rebel by rejoicing in what life does offer (Lowne & Lohnes, 2024).

Albert Camus significantly influenced its understanding and application to human experience. The Stranger, for instance, showcases absurdism through Meursault, who is less concerned with society than with personal relevance. Meursault's nonchalant response to the death of his mother, exemplified by the refusal to view her body and joy at returning home, serves as an example of absurdist principles. Absurd that such apparent lack of concern does not negate his grief but accepts the arbitrary meaninglessness of the event, a central tenet of absurdism. In this sense, Meursault undermines prescribed emotional reactions and shows how the philosophy approaches life unconventionally.

Ultimately, this paper examines the Existential philosophy of Mersault in Albert Camus' The Stranger using Biographical Criticism. This paper offers fresh analysis of this novel as it deals with the life and experiences of Albert Camus as he portrayed Mersault as the reflection of his absurdism. This will improve the analysis and comprehension of the novel *The Stranger*; thus, this gives a fresh perspective regarding this literature. Moreover, this also contributes to the understanding of the simplistic writing style of The Stranger and how the views as well as the life of Camus have significant effects on this way of writing. The said writing style contributes to the realness of the message that the novel wants to evoke. Furthermore, the writing style of the novel and how the novel was explained will inspire aspiring writers to have this novel as their inspiration for their own writing or writing styles, and the outcomes of this may contribute new literatures. Literature with the same themes as the philosophy of Camus and other philosophies related to this, such as existentialism and absurdism, will acquire new information and perspectives in this study. In addition, this will also give a wider context on different lines in the novel that

shows the philosophy of absurdism.

2. Methodology

This paper used Textual analysis through a biographical approach, as this method will evaluate and answer the research problem. This method uses thorough analysis of the author's life and his novel. Its analysis lies with Albert Camus' first novel, "The Stranger." Using the biographical approach in literary criticism of Samuel Johnson, this method explored the research problem. He claimed that a writer's life usually inspires works since it is built of beliefs and values connected with experiences of personal life. A careful and extensive summary was then drawn so as to clearly link this approach towards the work that is going to be studied in literature. The researchers aim this paper to be fully comprehensive for the younger literary researchers.

This paper employed a biographical analysis approach to critically examine Albert Camus' "The Stranger," drawing upon key biographical elements of the author's life. Through a careful reading of the novel, the researchers scrutinized how Camus' personal experiences, particularly his Algerian upbringing, his philosophical learnings, and his engagement with existentialist thought, are reflected in the protagonist, Meursault. This analysis focused on identifying and interpreting the biographical resonances within the narrative, exploring how Camus' own struggles with alienation, absurdity, and the search for meaning may have shaped the novel's themes and characters. By examining the novel through this biographical lens, the researchers aim to gain a deeper understanding of Camus' creative process and the personal and intellectual forces that shaped his literary vision.

The researchers viewed the novel "The Stranger" using biographical criticism in order to see how Camus' life relates to the portrayal of the characters, specifically the protagonist, Meursault. In that sense, in selecting the texts for analysis, two criteria are considered. First, the texts must be relevant to answer the research question, second the selection of the lines in the text must have relevance to Albert Camus' life experiences and with his philosophy. The researchers then aligned these two criteria to clearly select the appropriate lines in Albert Camus' story of The Stranger. Passages offering the greatest potential for insightful analysis were selected based on their relevance to the research question and their connection to Camus' life and philosophy. In ensuring that these two selection criteria align so well, it was decided upon with precision and without ambiguity in the selection of the most analytically worthy passages from The Stranger.

This paper also employed a qualitative research approach using textual analysis as its primary methodology. Textual analysis allowed the researchers to have an in-depth examination and interpretation of various text formats, such as documents, related studies, articles, and speeches, to explore underlying themes of the novel *The Stranger* by Albert Camus. To ensure the selection of data relevant to the research objectives, a purposive sampling technique was implemented. This technique involved strategically selecting specific texts and data sources that best represent the research phenomenon under investigation.

In conducting the textual analysis, objective interpretation has been applied. The researchers rely on the scholarly works of Albert Camus' biographers and interpreters of his philosophy. Some of these include published research works, studies, articles, biographies and journals that shed more light on nuances of Albert Camus' life and philosophical theories, chiefly existentialism and absurdism, and their engagement with his works. The researchers conducted a thorough reading and understanding in order to interpret the story itself and its relationship between the author's philosophy with the help of scholarly works to better understand the author's intended messages.

With this, narrative analysis was applied as the main design for textual analysis, it focuses on interpreting human experiences and motivation to understand the meaning and context by looking closely at the story. The researchers used Narrative analysis to accurately examine and interpret the texts from the novel. The researchers conducted this literary analysis for the last 3 months when they began to look at the research gap of the literary analysis for *The Stranger*. There is a noticeable need for the research to scrutinize, clarify, and come to an understanding of the biographical relation of Camus toward his "The Stranger" literary work.

3. Results and discussions

3.1 Meursault's emotional detachment

> *"MOTHER died today. Or, maybe, yesterday; I can't be sure'. The telegram from the Home says: 'YOUR MOTHER PASSED AWAY. FUNERAL TOMORROW. DEEP SYMPATHY'. Which leaves the matter doubtful; 'it could have been yesterday."* (Camus, 1942, 1)

Meursault does not seem to care enough to remember the exact date of her mother's death .This contrasts with how most people would react to such big news. This uncertainty about the exact day of his mother's death proposed a detachment from the event and from her mother. Also using words like "maybe" and ' I can't be sure" feels empty and casual. There's no sense of sadness in his words. This relates to Albert Camus' life, because Camus' mother was deaf and illiterate, and part of a poor working family. His father, Lucien, died in World War I. His father died when he was young and then his mother's condition worsened as she became increasingly ill. Camus' personal experiences with loss and his mother's struggles likely influenced his existentialist outlook, which emphasizes the absurdity of life and the lack of innate meaning (Simpson, 2023). Meursault's disinterest from his mother's death can be seen as a reflection of Camus' own experiences with loss and his belief that life is ultimately meaningless.

3.2 Meursault's extreme alienation

> *"He told me he believed in God, and that even the worst of sinners could obtain forgiveness from Him. But first he must repent, and become like a little child, with a simple, trustful heart, open to conviction. He was leaning right across the table, brandishing his crucifix before my eyes. As a matter of fact, I had great difficulty in following his remarks, as, for one thing, the office was so stiflingly hot and big flies were buzzing round and settling on my cheeks; also because he rather alarmed me. Of course, I realized it was absurd to feel like this, considering that, after all, it was I who was the criminal. However, as he continued talking, I did my best to understand, and I gathered that there was only one point in my confession that badly needed clearing up—the fact that I'd wait before firing a second time. All the rest was, so to speak, quite in order; but that completely baffled him.*
>
> *I started to tell him that he was wrong in insisting on this; the point was of quite minor importance. But, before I could get the words out, he had drawn himself up to his full height and was asking me very earnestly if I believed in God. When I said, 'No,' he plumped down into his chair indignantly."* (Camus, 1942, 43).

Meursault answered this when the magistrate was trying to see remorse from him and asked him whether he believes in God. His unemotional "No" shows his rejection from a fundamental societal belief. Many believe that one should have faith in God and it is considered as one of the societal norms. However, Meursault does not engage himself with any conversation about God. He represented a lack of connection to this fundamental human experience and also highlights his alienation from the world.

The author of this novel, Albert Camus, was born catholic and eventually became an atheist. He rejected religions as one of the foundations of his philosophy. However, Camus respected Christians as his young self was found drawn into Christian faith. Nevertheless, he ultimately rejected the idea of religion as means of finding meaning in life. This belief of Camus is the central theme of his philosophy, absurdism. He does not believe that God could resolve social injustices and sufferings in the world. It led him to conclude that life has no meaning and he advocated a nihilistic worldview which means that nothing can be communicated or known, even through God (Truman, 2023). Furthermore, this can be seen in the portrayal of Meursault in the novel. His denial of God and lack of moral compass that ended him cost his life is identical to the author's philosophy.

3.3 Meursault as an existentialist

> "'You're a young man,' he said, 'and I'm pretty sure you'd enjoy living in Paris. And, of course, you could travel about France for some months in the year.'
>
> I told him I was quite prepared to go; but really I didn't care much one way or the other. He then asked if a 'change of life,' as he called it, didn't appeal to me, and I answered that one never changed his way of life; one life was as good as another, and my present one suited me quite well." (Camus, 1942, 28)

Meursault was asked by his employer to move to Paris for a new job opportunity and his answer towards it represents existentialism. He said that he sees no reason to change his life. He lacks ambition and rejects the idea that his life should have dynamics and a predefined goal. He does not want to explore or have a room for improvement, he just wants to focus on the path that he is taking in the present and find meaning of life in his own stagnant experiences. This is connected to the author's philosophy of absurdism. Meursault doesn't seem to know his purpose and chose to stick with the present life he's living in. That is solely what absurdism is all about. Looking for the meaning of life and other fundamental questions that intrigues the human mind, which are seen in Meursault's answers and actions.

3.4 Meursault and his indifference to death

> "I have fixed up with my employer for two days' leave; obviously, under the circumstances, he couldn't refuse. Still, I had an idea he looked annoyed, and I said, without thinking: 'Sorry, sir, but it's not my fault, you know.'
>
> Afterwards it struck me that I needn't have said that. I had no reason to excuse myself; it was up to him to express his sympathy and so forth. Probably he will do so the day after tomorrow, when he sees me in black. For the present, it's almost as if Mother weren't really dead." (Camus, 1942, 4).

His visible lack of sorrow about the death of his mother, which is illustrated by him declaring that "it's almost as if Mother were not actually dead" and his notion of the funeral as just "putting an official seal on it," is the outcome of his fixated presence. It displays an existentialist view with regards to life and death, during which Meursault himself questions the meaning of both. His reaction to the death of his mother is quite unemotional. Camus believed that human beings have an inherent desire for meaning and purpose in a universe that is ultimately indifferent and meaningless. This conflict between our search for meaning and the inherent meaninglessness of existence creates a sense of "absurdity." Meursault's indifference to his mother's death can be seen as a response to the absurdity of existence. If life is ultimately meaningless, then conventional emotional responses like grief may seem subjective or unnecessary.

3.5 Meursault's unexplainable self-centeredness despite a tragic event and contrasting society

> "That was why, during the last year, I seldom went to see her. Also, it would have meant losing my Sunday—not to mention the trouble of going to the bus, getting my ticket, and spending two hours on the journey each way." (Camus, 1942, 2).

This line demonstrated how Meursault puts himself before seeing his mother on Sundays because of the trouble it gave him. This odd viewpoint highlights his disconnection with society. Most people would visit a sick or recently deceased parent as a priority, even if it is inconvenient and time consuming but that is not the case for Meursault because visiting her mother especially on Sundays is inconvenient for him because of all the trouble he has to face for visiting his mother. This is related to alienation which Albert Camus explored a lot during his time which highlights the absurdity of life and the detachment from society. Meursault's alienation from society is

evident because he ignores societal norms and prioritizes his personal needs over familial obligations. After these events, Camus thought that life has no meaning. Hence, this idea was a little depressing to think about. He posed one of the most philosophical questions: Is life worth living? Others may find this question easy to answer, especially Christians who are devoted with God yet; Albert Camus thought religion as an illusion. This adds up to his idea of a meaningless life. He believed that God only made life more absurd, not less.

Albert Camus also compared human condition or human life cycle into a Greek mythological legend Sisyphus, who was condemned for eternity by the gods to roll a boulder up a mountain, only to have it fall to the bottom. For Camus, humans are like Sisyphus who continuously ask about the meaning of life, only to find our answers tumbling back down. This led him in the making of a philosophical essay entitled, "The Myth of Sisyphus". This literary piece is an important text that talks about the absurdity of life. For Albert Camus, it is the representation of the life of a modern man in which one is required to perform the same tasks everyday with no point or purpose to much of what he does. He began this work during the fall of France, in 1940, which for Robert Zaretsky prompted his ideas of the absurd. Furthermore, Albert Camus' and his relationship with Jean-Paul Sartre is bound philosophically. Sartre was found by Camus in October 1938 when he read and evaluated Nausea. It was believed that Sartre had affected Camus' idea of absurdity in a way. He wrote in his review that he somehow felt the story was very close to him. In 1939, when Camus also reviewed Sartre's collection of stories called The Wall, he eagerly applauded Sartre's clarity in portraying the absurdity of existence. Camus then showed immense mastery of Sartre's stories which he described how readers are unable to understand the actions of the characters from a single moment to the other and he believed that it represents the author's art which illustrates his totally absurd creatures and his observations of their repetitive actions (Jones, 2022).

Circling back to the main topic, Meursault, in the novel The Stranger, depicted a high sense of absurdity. He has a different way on how to conceive and interact with the world. Meursault displayed an uncommon view of important events starting off with his mother's death, stating how it means nothing for him. Secondly, when he killed the Arab man "because of the sun". And thirdly, his lack of emotional intelligence when Marie asked him whether he loves her. In this first part of the novel, it displayed the psychological state of Meursault. Moreover, in the second part of the novel which is his trial, Meursault did not lie about his actions. Reflectiveness was not seen from him and he did not seem to think about the future or the past. Even though he was asked to defend himself for the prosecutor's death penalty, he stated that the sun was the actual reason for his crime and the people just laughed. Even his lawyer threw up his hands.

Camus' biography has an impact in his writing of The Stranger; thus, this indicates that his personal experiences, philosophies, and the historical and social context of his time profoundly influenced the creation of his literary work. Biographical criticism gives very useful insights, but it is always remembered that it cannot be the only way in which literature may meaningfully be understood. Literary works possess a particular value of artistry and literature that lies beyond the personal life of the author.

4. Conclusion

This paper comes to the conclusion that the use of biographical criticism to analyze *The Stranger* by Albert Camus, is an efficient way to identify the motives of Meursault, the protagonist, in the absurdity of his actions. Explained above are the background and life experiences of the author. Young Albert Camus was born to a poor family in a war torn French Algeria. He experienced the horror of war and the psychological effects of his father's death are difficult to explain. In addition, Camus' mother was uneducated, overworked, and withdrawn. This brought a complex influence to him. Camus, in his public statements, insisted his attachment to his mother. He declared his wish to place her mother's "admirable silence" as a center of his writings. This silence refers to stoicism and a form of indifference which are the key concepts of his works.

This characterization of Meursault in The Stranger is believed to be aligned with the author's philosophy which is absurdism. In the Camusian Absurd, Camus argues that in order for someone to explain the idea of

absurdism, one must experience or feel absurdity in their life. This experience becomes the foundation of demonstrating what absurdity is. And in this novel, the protagonist's characteristics and descriptions are much alike with Albert Camus'. For him, absurdism is craving for meaning but; the concepts that would explain it are often lost. Albert Camus' philosophical question about suicide is also represented at the end of the novel when Meursault was sentenced to death yet; he found beauty in life and realizes the meaninglessness of his actions. With these findings, it is easier to identify Meursault's motives in his absurdity. Using biographical criticism in critiquing Albert Camus' *The Stranger*, the researchers found a significant relationship between the author's life experiences and the protagonist, Meursault's portrayal. This paper will surely help future researchers to scrutinize the reason behind Meursault's actions in the novel. In addition, this study will create new perspectives about the novel which is crucial in literary criticism and the philosophy of absurdism.

Keeping beyond the current topic of research, the students can also take an approach on each of existentialism, absurdism, alienation, the role of societal expectations on Meursault's fate, and so forth. This would prepare an examination of their relations and contributions to the total meaning of the novel. In addition, this literary analysis will help teachers to teach their students the novel "The Stranger" clearly and comprehensively, specifically Mersault's motivations based on the concepts of absurdism and the impacts of Camus' life throughout the novel. By providing the connection between the life of Camus and his literary work, this research provides teachers with relevant examples and theoretical foundations that augment the teaching process and help students to understand the complex character of Mersault and the philosophical concepts of the novel. Lastly, this will allow teachers to make the connection between a writer's life and their work, thus making the students have a better connection and understanding towards the novel.

Philosophy students can also use this to understand clearly the Philosophy of Albert Camus. This paper is comprehensible enough for the students of other fields to read and understand. This can be a guide for AB Philosophy students studying Existentialism to have a clear understanding of Camus' absurdism with his written famous novel. This paper recommends to the future researchers to have an extensive analysis of the novel *The Stranger* by Albert Camus. Nonetheless, a variety of studies is also recommended. The researchers also suggest critiquing this novel in a different lens or approach like Psychoanalytic criticism.

5. References

Abdullah, M. A., & Saksono, S. T. (2021). Alienation in Albert Camus' the Stranger. *IOSR Journal of Humanities and Social Science (IOSR-JHSS), 26(4),* 34–38. https://www.iosrjournals.org/iosr-jhss/papers/Vol.26-Issue4/Series-3/E2604033438.pdf

Aronson, R. (2021). Albert Camus. Stanford Encyclopedia of Philosophy https://plato.stanford.edu/entries/camus/

Camus, A. (1942). The Stranger. Vintage Books. New York.

Cruickshank, J. (2025). Albert Camus. Encylopedia Britannica. https://www.britannica.com/biography/Albert-Camus

Folkenflik, R. (2024). Maturity and recognition of Samuel Johnson. Encyclopedia Britannica. https://www.britannica.com/biography/Samuel-Johnson/Maturity-and-recognition

Gerber, N. (2023). Incestuous Longings in Camus' The Stranger. Free Associations: *Psychoanalysis and Culture, Media, Groups, Politics, 90.* http://www.freeassociations.org.uk/

Gnanasekaran, R. (2014). Psychological interpretation of the novel The Stranger by Camus. *International Journal of English Literature and Culture, 3(2),* 73-86. https://10.14662/IJELC2014.024

Ikarius. (2016). David Sprintzen Camus - A Critical Examination 1988. Scribd. https://www.scribd.com/document/325087648/David-Sprintzen-Camus-A-Critical-Examination-1988

Jones, J. (2022). Jean-Paul Sartre & Albert Camus: Their Friendship and the Bitter Feud That Ended It. Open Culture. https://www.openculture.com/2022/05/jean-paul-sartre-albert-camus-their-friendship-and-the-bitter-feud-that-ended-it.html

Lohnes, K. & Lowne, C (n.d). The Stranger. Encyclopædia Britannica. https://www.britannica.com/topic/The-

Stranger-novel-by-Camus

Long, R. (2016). Absurdism of "The Stranger" by Albert Camus. Fusfoo. https://www.fusfoo.com/article/6710/Absurdism-of-The-Stranger-by-Albert-Camus.html

Mammadova, I. (2024). The Concept of the Absurd: Camus' Literary Exploration of Existential Philosophy. GSRH: Global Scientific Research & Humanities, 1(1), 10. https://doi.org/10.69760/gsrh.01012024010

Saadan, H. M., & Al-Hasani, M. R. (2023). Existentialism and absurdity in Albert Camus' "The Stranger": A psychological study. *American Research Journal of Humanities & Social Science (ARJHSS), 6(5),* 12–18. https://www.arjhs.com/

Simpson, D. (2023). Camus, Albert. *Internet Encyclopedia of Philosophy.* https://iep.utm.edu/albert-camus/

Somers, J. (2019). Biography of Samuel Johnson, 18th Century Writer and Lexicographer. ThoughtCo. https://www.thoughtco.com/samuel-johnson-4770437

Tearle, O. (2025). A Summary and Analysis of the Myth of Sisyphus. Interesting Literature. https://interestingliterature.com/2021/05/myth-of-sisyphus-summary-analysis/

Truman, J. (2023). Does Albert Camus believe in God? A look at his philosophy. *Deep Thinkers.* https://www.deepthinkers.net/does-albert-camus-believe-in-god-a-look-at-his-philosophy/

Van den Hoven, A. (2017). ReviewedWork: Looking for The Stranger: Albert Camus and the Life of a Literary Classic Alice Kaplan. *Sartre Studies International, 23 (2),* 117-119. https://www.jstor.org/stable/48562789

Viktoriya, S. (2023). Albert Camus on the Meaning of Life: Faith, Suicide, and Absurdity. The Collector. https://www.thecollector.com/albert-camus-meaning-of-life/

Williams, J. (2015). Looking for the Stranger. The New York Times. https://www.nytimes.com/2016/09/16/books/looking-for-the-stranger-alice-kaplan-camus.html

Zileli, B. N. (2005). Absurdity of the Human Condition in the Novels by Albert Camus and Samuel Beckett (Master's Thesis). *Middle East Technical University.* https://open.metu.edu.tr/handle/11511/15776

Philosophy meets practice: The lived experiences of the teacher interns in their field practicum

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Abstract

This qualitative phenomenological study investigated the lived experiences of six teacher interns from Ilocos Sur Polytechnic State College during their field practicum at Dili National High School in the academic year 2024-2025. The study aimed to investigate how these teacher interns navigate the complexities of aligning their educational philosophies with their teaching practices, the challenges they encountered, and the professional development they experienced. Employing in-depth interviews, the study explored themes such as adaptability, professional support and development, challenges in student engagement, and coping strategies. Results revealed that teacher interns encountered remarkable challenges in adapting to diverse learning environments and managing classroom dynamics and assessment methods. However, these challenges enabled notable personal and professional development, aided by valuable mentoring from cooperating teachers. The study emphasizes the relevance of experiential learning in teacher preparation and the critical role of mentorship and adaptability. The findings assist in understanding the intricacies of teaching internships, providing insights that can help enhance pre-service teacher training programs and better prepare candidates for the demands of the teaching profession.

Keywords: teacher interns, classroom management, lesson planning, assessment methods

Philosophy meets practice: The lived experiences of the teacher interns in their field practicum

1. Introduction

The transition from philosophical frameworks acquired in teacher education programs into the realities of classroom teaching or field practicum can be both exciting and unnerving for teacher interns. These realities allow them to navigate the complexities of aligning their philosophies with their practices. Teacher interns often enter the classroom with quixotic visions molded by their educational training and personal principles. Nevertheless, the actuality of classroom management, curriculum demands, and diverse student needs can test these assumptions leading to a revisit of their teaching philosophies.

Field practicum for teacher interns is an important phase in their professional development because it allows them to transfer from theoretical study to the dynamic and complex realities of classroom instruction. According to the study of Zeichner & Liston (2019) people frequently refer to the field practicum as the "bridge" between philosophy and practice, providing teacher interns with their first meaningful opportunity to apply their teacher education program knowledge in real-world scenarios However, the transition isn't always seamless. While philosophical knowledge provides a foundation, it usually lacks the flexibility needed to negotiate the unexpected scenarios and many classroom contexts that interns encounter.

During their field practicum, teacher interns encounter a range of issues. From managing student conduct to developing effective lesson plans and carrying out rigorous evaluation procedures, the demands of teaching usually exceed what can be learned in a university classroom. Despite the fact teacher preparation programs educate interns on pedagogy and instructional approaches, they frequently fail to apply these theories in the dynamic, fast-paced setting of real classrooms (Darling-Hammond, 2018). Hands-on experience, rather than academic study, is typically utilized to build not only knowledge but also the decision-making, flexibility, and interpersonal communication skills required to apply theoretical concepts in real-world situations.

Classroom management, course preparation, and evaluation procedures are the primary concerns of inexperienced teacher interns. For example, classroom management necessitates the ability to create and maintain a structured environment while encouraging student participation and learning. It entails not only dealing with disruptive conduct, but also setting clear norms, methods, and relationships with pupils, which can be stressful for novice teachers. Likewise, lesson planning requires responding to students' needs, talents, and interests in real time, rather than simply putting down philosophical notions. Teacher interns commonly learn that the lessons they meticulously plan do not always go as expected, resulting in dissatisfaction and the need for flexibility. In like manner, assessment, a crucial component of education, requires teacher interns to assess student comprehension but also tailor assessments to the many learning styles and skills seen in a regular classroom (McMillan, 2020).

This case study will look into the lived experiences of six teacher interns during their field practicum, focusing on the challenges they encountered in these three key areas and the coping strategies they employed. Understanding the issues that teacher interns face, as well as how they overcome them, can assist teacher education programs in better preparing future educators for the realities of teaching. The study also seeks to shed light on how to effectively support teacher interns as they transition from university learning to professional teaching practice. A well-documented issue in teacher education is the perceived gap between theoretical information supplied in courses and the practical skills necessary in classroom instruction (Wolff et al., 2021). While theoretical frameworks on pedagogy, classroom dynamics, and assessment can provide useful insights, teacher interns frequently struggle to apply these concepts when faced with the real-world complexities of student behavior, diverse learning needs, and the unpredictable nature of daily classroom life (Tomlinson, 2019).

People frequently cite the gap between theory and practice as one of the most difficult components of the teaching practicum, especially for beginner teachers who may feel unprepared when confronted with the realities of full classroom responsibility (Goh & Matthews, 2019).

One reason for this disparity is that classroom experiences rarely match theoretical norms. For example, "ideal" classroom management approaches promoted in textbooks may fail to account for the wide range of student behaviors, particularly in classes with significant ethnic or socioeconomic disparities. Furthermore, while teacher training programs emphasize lesson planning, the dynamic nature of teaching frequently requires educators to modify classes on the spot based on student participation, prior knowledge, or unanticipated disruptions. Teacher interns, in particular, may lack the expertise and confidence needed to make these on-the-spot changes, widening the gap between theory and practice. Furthermore, assessment, another critical component of teaching, raises its own set of concerns. Teacher interns must navigate the complexities of evaluating student achievement while keeping assessments fair, inclusive, and relevant to learning objectives. The need to provide constructive feedback, meet diverse learning demands, and handle grading logistics compounds the problem (McMillan, 2020). Teacher interns may also be under pressure to balance formative and summative evaluations while adhering to institutional or curricular guidelines, which can raise their stress and workload.

Given these challenges, it is important to investigate how teacher interns make their way from theory to practice. Understanding the exact issues they meet and the approaches they use to overcome these challenges is crucial for enhancing teacher education programs. This case study, which focuses on the field practicum lived experiences of six teacher interns, seeks to provide a complete understanding of the complexity of classroom management, lesson planning, and evaluation procedures. The study's findings will not only increase academic discourse on teacher education but will also provide practical advice for future teacher interns. The study's emphasis on real-world difficulties makes it relevant to both teacher educators and policymakers, highlighting the need for more extensive support systems throughout the practicum period. Mentorship from experienced instructors, opportunities for reflective practice, and training in adaptive teaching practices are all potential enhancements to teacher education programs. Furthermore, the study may help school administrators understand the types of environments and tools that can help teacher interns thrive during this important stage of their growth.

Finally, this case study tries to bridge the gap between theory and practice by giving light on the lived experiences of teacher interns during their field practicum. Through their sharing of the issues they confront and the ways teachers use to effectively manage classrooms, organize lessons, and assess learners. The findings of this study will eventually contribute to improving teacher education programs, ensuring that future generations of instructors are more prepared to explore the complicated and demanding nature of classroom instruction.

Statement of the Problem - **The study entitled** "Philosophy meets practice: The lived experiences of the teacher interns in their field practicum" **aims to answer the following questions:**

➢ What challenges do teacher interns face in terms of classroom management, lesson planning, and assessment methods during their field practicum?

➢ What coping strategies do teacher interns employ to address these challenges?

➢ What recommendations can be made to improve teacher education programs based on the experiences of the teacher interns?

2. Methodology

Research Design - The researchers employed the qualitative approach, particularly the phenomenology design to research which seeks to comprehensively investigate the challenges and coping strategies of teacher

interns in their Field Study 3 including the rooms for improvement for its implementation during the school year 2024-2025. A phenomenology is described as the study of phenomena wherein it is anything that appears to someone in their conscious experiences (Gill, 2020).

Population and Locale of the Study - The participants were selected using the criterion sampling technique with the following criteria namely; a) Must be officially enrolled in FS 3 for the 1st semester SY 24-25 in ISPSC Main Campus; b) Must be a regular student admitted in English/Math/Science of the BSEd program in an institution; c) Engaged in field practicum in Dili National High School (DNHS), Sta. Cruz, I. Sur; and d) Willing to participate in interviews. The following were excluded: 1) students retaking off-campus practice teaching; 2) students with out-of-field cooperating teachers; and 3) those not willing to participate in interviews. With these criteria, there were six (6) teacher interns identified.

Instrumentation and Data Collection - In gathering the relevant data, the main tool of the study was an interview using a semi-structured interview guide that allowed the researchers to have flexibility in interviewing the participants. The interview was focused on the three problems of the study. The researchers constructed the interview guide. Then, the participants were identified and asked permission through the informed consent forms and the letter. Since one of the researchers were affiliated to the institution where the students were enrolled in their practice teaching, the identified participants were added in a Facebook Messenger Group for easy access and communication. The participants were also informed of the nature of the study through an online orientation. Only then was the interview conducted; the participants underwent thoroughly asking questions based on the semi-structured guide. After accumulating the data, the researchers coded the gathered information.

Analysis of Data - A five-step thematic analysis will be utilized based on the framework of Braun and Clarke (2006) to analyze qualitative data from semi-structured interviews: (1) familiarization of the data which involves transcribing, reading and re-reading of transcripts and noting initial patters in the interview data, ensuring deep understanding of collected data; (2) generating codes that involved organizing the data into a systematic way that allows verification of relevant data, this step ensure that all data extracted are significant and aligns to the goals of the study; (3) searching for potential these include organizing generated codes by grouping related code together; (4) review and refinement of themes by verifying the accuracy of generated codes from the interview data, this ensures that ideas from each code grouped in themes are consistent; (5) assigning names for each theme and providing a detailed description for each to provide a structure for extracted data.

Ethical Considerations - Written consents are given to participants of the study which states that participation is voluntary, refusal to participate or withdrawing from the study even if still in progress will be allowed without any questions or consequences. The anonymity of participants is preserved as their identity was not revealed in reporting the findings from data collection and analysis. Cultural and gender sensitivity is applied throughout the process of the interview; rephrasing questions if necessary to avoid words that may discriminate cultural affiliations or gender preferences. Transcribed data will be stored in an encrypted, password protected device, and for the purpose of cross checking and validation of data analysis participants were invited to review their anonymized interview transcripts to confirm accuracy and ensure their responses were faithfully represented.

3. Results and Discussion

3.1 Difficulties of Teacher Interns

One of the most reoccurring difficulties faced by teacher interns was managing classroom behavior. As reflected in the interviews, interns report issues regarding disruptive student activities, not being attentive inside the classroom, and not complying with the rules and regulations implied during the subject. Participants relayed that some students openly use makeup during the class, which indicates a lack of respect for the authority of the teacher intern. For example, Participant 2 shared: *"While I am discussing in front, some students bring out their*

make-up kit and start to retouch their faces… some students are in another world or something as in LUTANG [spaced out]." Similarly, Participant 6 emphasized struggles with noise in lower sections: *"I really had difficulties in managing the class, especially the lower section… it's already disturbing/affecting the other class."* These observations are parallel with the findings of Aldabbus (2020), who noted that student-teacher's lack of experience often leads to struggles in maintaining discipline inside the class, which stems from the lack of confidence in enforcing classroom rules and regulations. Michell et al. (2017) also emphasized that the frequency of these classroom interactions, if not addressed promptly can lead to more significant behavioral issues that contribute to the burn-out among teacher interns.

Maintaining student engagement throughout the class was also one of the challenges faced by teacher interns. As reported by the participants, they usually struggle in this aspect, particularly in handling lower sections; teacher interns find it difficult to keep students attentive during the class. Participant 3 highlighted this issue: *"Learners have short attention spans, making it difficult to encourage them to listen and participate in discussions."* Participant 5 added challenges in motivation: *"Sometimes, even after an hour, I can't think of a good motivational strategy to include."* This aligns with the findings of Abla and Fraumeni (2019), which elaborates that the challenges in terms of student engagement stem from the influences brought by the type of classroom environment and the ability of the teacher to foster a meaningful interaction which is essential in sustaining students` interest, keeping them engaged through the class.

In terms of lesson planning, teacher interns faced significant difficulties in developing engaging and effective activities as most of them echoed their difficulty in aligning their lesson plan to the diverse learning needs of the students. Participant 1 explained: *"In lesson planning, I was challenged in making and constructing students' activities and participation… there are three parts of the lesson plan that needed students' participation and activities."* Participant 3 also noted: *"I find it challenging to plan or create engaging activities that cater to students' diverse learning style and interests."* This claim is supported by Jantarach and Soontornwipast (2018) who noted that new teachers especially those who are still gaining practical experience struggle to integrate pedagogical theories into real-world practice, therefore, often leading to the lesson that lacks in coherence and therefore cannot engage the students effectively.

Additionally, participants also voiced time constraints as one of the significant factors that make lesson planning difficult. Especially when incorporating teaching strategies and instructional materials tailored to the lesson and the needs of the students. Participant 1 described this pressure: *"In assessment method, the greatest challenges for me include the lack of time… I wasn't able to finish my assessment part… I am giving the activity as their assignment."* This is supported by a study by Korkmaz and Toraman (2020) which highlights the time constraints faced by teachers when planning lessons, particularly when developing and integrating teaching strategies and instructional materials to need the diverse needs of the students.

Assessment methods posed another set of challenges for the student-teachers, primarily due to the difficulty in designing evaluations that accurately reflected students' understanding. Many participants struggled with creating assessments that were fair and catered to the varied abilities of their students. Participant 5 explained: *"My challenge was figuring out how to adjust the assessments to ensure that all students could answer and maximize their scores."* Participant 2 added: *"A simple remembering questions cannot be answered by the students… me and my CT preferred to give choices… but their cognitive skills will be affected."* This is also reflected in the findings of Sam et al. (2019) who also identified that designing assessments presents significant challenges, particularly in ensuring that if can accommodate all the needs of the students and correctly measure their understanding.

Similarly, lack of time was also observed to be one of the issues in terms of conducting the assessments at the end of class periods. Participants report that they often assign unfinished assessments as homework which can compromise the validity of the assessment process. Participant 6 stated: *"It's still hard to think on how to assess my students because I want it to be different from the previous activities I implemented."* This is in line

with the findings of Sawalhi and Chaaban (2021) where allotting enough time for assessment is one of the critical challenges for teacher-interns, impacting their ability to properly gauge the current performance of the students.

3.2 Coping Mechanisms of Teacher Interns

To address problems in terms of classroom management, teacher interns opted for proactive approaches by setting clear classroom rules and regulations and ensuring that it is consistently reinforced. Direct questioning techniques were also noted by the participants to maintain engagement with students. For instance, Participant 2 emphasized rule enforcement: *"I always remind them the rules and regulations… those who didn't follow will be given a punishment (like standing up until he/she can answer a question)."* Participant 6 added*: "I remind students to minimize their voice to avoid disrupting other classes."* Reinke et al. (2020) supports this by emphasizing the importance of proactive classroom management strategies to reduce students` disruptive tendencies and in turn promote a more engaging classroom environment. Moreover, teacher interns also reported integrating educational games and multimedia sources to engage students and capture their interest, creating a more dynamic learning environment and reducing disruptive behaviors. Participant 3 highlighted this strategy: *"I incorporate games and group activities, as well as using visual aids such as pictures and videos… learners were more active and engaged."* Participant 1 similarly noted leveraging digital tools: *"I watch YouTube and get some ideas there… to create activities suitable for my students."* This approach also aligns with the findings of Chiotaki and Karpouzis (2020), where it was shown that incorporating educational games can enhance student outcomes by increasing their engagement inside the classroom.

To overcome challenges faced in terms of lesson planning, teacher interns opted for frequent consultations with their cooperating teachers, which provided them with valuable feedback from experienced teachers, which helped them to design lesson plans that are more appropriate to effective in meeting the needs of the students. Participant 3 explained: *"I ask my cooperating teacher for help… activities and strategies effective for diverse learners."* Participant 2 echoed this: *"My CT gives me advice on what to do in every section I handle."* This strategy was also reflected in the study of Sawalhi and Chaaban (2021), which emphasized the importance of mentorship to support teacher interns` professional development, enhancing their instructional planning skills. According to the participants, they also utilized online resources such YouTube and other educational websites to gather ideas. Leveraging these available tools helped them in having foundational ideas in developing teaching strategies to be integrated into their lesson plan. Participant 6 shared*: "I explore online to look for unique assessment strategies,"* while Participant 1 noted: *"I watch YouTube… to think of activities."* This is parallel to the findings of Kumi-Yeboah et al. (2020) that highlights the effectiveness of digital resources in promoting innovation in terms of developing instructional materials as it is readily available and a great source of references to enhance teaching practice.

To address challenges encountered in assessment methods, teacher interns incorporated teacher-guided assessments e.g. multiple-choice questions to accommodate the varied abilities of the students more effectively. Integration of real-life scenario-based assessments was also utilized to provide more contextualized questions to make assessments more relatable. Participant 1 described this approach: *"I include activities based on real-life situations… for students to relate and understand."* Participant 5 added: *"I look into other resources for effective motivational activities."* Edutopia (2024) supports these findings as the study points to contextualization of assessment methods as an effective method to motivate the students by increasing their interest, making it easier for them to demonstrate their knowledge dung assessments.

Additionally, teacher interns also relied on continuing formative assessment methods to actively measure the current understanding of the students throughout the lesson. Participants reported that this was also advised to them by their cooperating teachers to allow them to make immediate adjustments needed. Participant 4 emphasized structure: *"I use the three domains (cognitive, psychomotor, affective) as my guide… to ensure students learned something."* Sawalhi and Chaaban (2021) emphasized the importance of mentorship to support

teacher interns` professional development, enhancing their instructional planning skills particularly on planning for a more effective assessment method.

3.3 Improvements for Field Study Program in Teacher Education

In terms of classroom management, participants advised future teacher interns to set clear rules and regulations and to establish their authority inside the classroom. Consistence on enforcement of rules creates a respectful and more structured learning environment. Participant 1 emphasized: *"Always have the courage to be the authority inside the classroom… it can really help manage and discipline the students."* Participant 2 reinforced this by advising: *"Don't be afraid to become a strict teacher… improve your strictness and strategies to make students obedient and respectful."* Participant 6 added the importance of mentorship: *"Follow the advice of your Cooperating Teacher (CT)… they are professionals."* This aligns to the findings of Mitchell et al. (2017), which emphasized the importance of having a structure in terms of classroom management as it establishes a more manageable student behavior.

In lesson planning, participants suggested that future teacher interns should be open and continuously seek feedback to their coordinating teachers to be advised on the appropriate teaching strategies. Participant 3 highlighted collaboration: *"Be open to absorb knowledge and skills from experienced teachers… seek help from your CT and other teachers."* Participant 6 echoed this: *"Follow the advice of your CT to further develop your teaching-learning experience."* Additionally, participants also noted that being flexible and adaptive are the most essential skills needed to develop an effective plan to cater for the diverse needs of students. Participant 4 advised: *"Learn strategies to manage a diverse class… master your lesson before entering the classroom."* Participant 3 added: *"Get to know your students individually… to cater to their strengths and interests."* This is in line with the recommendations of Sawalhi and Chaaban (2021), who suggested leveraging the expertise of experienced mentors to refine lesson planning skills.

Lastly, in terms of assessment methods, participants point out the importance of utilizing a variety of strategies to accommodate the different needs of the students. They advised future teacher interns to incorporate both formative and summative assessments and integrate ICT approaches to further enhance the process. Participant 2 recommended: *"Create activities or educational games that improve [students'] HOTS [Higher-Order Thinking Skills]."* Participant 3 emphasized adaptability: *"Use strategies that cater to diverse learners."* Participant 5 stressed preparation: *"Master your lessons… enjoy the field of education."* Alruwais et al. (2018) supports this advice as their findings show that integrating technology into assessment practices provides more opportunities to diversify assessment methods to cater to the various needs of students, in turn, improving the overall assessment process.

4. Conclusions and Recommendations

Based on the results of the study, the following conclusions were drawn. In line with the foregoing findings, the following conclusions were drawn:

➢ Teacher interns face difficulties in terms of managing student behaviors inside the classroom and consistently maintaining engagement. These issues arise due to their lack of experience and in turn lack of confidence in enforcing classroom rules and regulations to ensure a classroom environment conducive for learning. However, teacher interns employ proactive strategies such as integrating interactive activities and taking advantage of multimedia resources to minimize the effects of these challenges. Additionally, setting clear rules and regulations were also established to create a more structured classroom to properly manage the students.

➢ Teacher interns struggle with addressing the diverse needs of learners during the development of lesson plans, this is also compounded by the limited time available to accomplish this task. Difficulties also arise in integrating pedagogical theories into the actual classroom setting. However, mentorship

provided by the cooperating teachers and interns utilizing digital resources has proven effective in improving their lesson planning skills and adapting to the diverse needs of the students.

➢ Teacher interns find it challenging to develop assessment methods that ensure effective measurement of the progress of students with varying abilities. Similarly, time constraints where also prevalent as only limited time was available to develop these assessment methods. However, incorporation of teacher-guided assessments and contextualization of assessment content enabled teacher interns to address these difficulties. Formative assessments were also actively used for continuous measurement and adjustment of instructional strategies.

➢ Constant mentorship, being flexible, and proficiency in using innovative tools are essential in helping teacher inters to overcome challenges in terms of classroom management, lesson planning, and assessment methods. These approaches should be prioritized by future interns to have a stable foundation for growth, equipping them with skills to progress in the teaching profession.

In view of the conclusions, the following recommendations are offered:

➢ Teacher interns should focus on the establishment of clear classroom rules and regulations from the beginning of practice and enforcing them consistently and being assertive to build authority is key to address student behavior, the use of interactive strategies e.g. educational games and multimedia should also be considered to maintain student engagement.

➢ Teacher interns should regularly seek consultations with their cooperating teachers for feedback and guidance. Be open to exploring online educational resources as references and to enhance creativity and adaptability in catering to the diverse needs of learners. Developing time management skills should be developed to balance preparation of lesson plans with other related activities.

➢ Teacher interns should incorporate a mixture of formative and summative assessments to regularly adjust to the needs of students. Contextualization of questions and relating them in real-life situations should be implemented to make assessment more relevant and engaging. Similarly, allocation of sufficient time in administering assessments at every session is essential to ensure its validity.

➢ Teacher Education Programs should incorporate classroom management and lesson planning training and workshops to teacher interns before deploying them to assigned schools. This training should focus on refreshing them on proactive strategies in managing the classroom and adaptability in planning lessons considering the possible needs of students.

5. References

Abla, C., & Fraumeni, B. R. (2019). Student engagement: Evidence-based strategies to boost academic and social-emotional results. *McREL International*. https://eric.ed.gov/?id=ED600576

Aldabbus, S. (2020). Challenges encountered by student teachers in practicing teaching. *British Journal of Education*, 8(7), 1-8. ECRTD-UK. https://www.researchgate.net/publication/334108206

Alruwais, N., Wills, G., & Wald, M. (2018). The benefits of using e-assessment in higher education: A case study of student perspectives. *International Journal of Education and Development Using Information and*

Communication Technology, 14(1), 34-47. https://www.learntechlib.org/p/183556/

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology. *University of the west of England,* 3, 77-101. https://uwe-repository.worktribe.com/output/1043060

Brown, M. (2018). Lesson Planning in Diverse Classrooms: Strategies for Teacher Interns. Sage. https://journals.sagepub.com/doi/10.1177/1053451218767905

Chiotaki, M., & Karpouzis, K. (2020). Educational games with open and cultural data: Enhancing engagement and learning. *Proceedings of the International Conference on Interactive Digital Storytelling*, 153-167. https://doi.org/10.1007/978-3-030-62516-7_13

Darling-Hammond, L. (2018). Preparing Teachers for Deeper Learning. Harvard Education Press. https://hep.gse.harvard.edu/9781682532942/preparing-teachers-for-deeper-learning/

Edutopia. (2024). Using scenarios in student assessments: Enhancing engagement and learning outcomes. Edutopia. https://www.edutopia.org/article/using-scenarios-student-assessments

Evertson, C., & Weinstein, C. (2020). Handbook of Classroom Management: Research, Practice, and Contemporary Issues. Routledge. https://doi.org/10.4324/9780203874783

Falchikov, N. (2020). Improving Assessment Through Student Involvement: Practical Solutions for Aiding Learning in Higher and Further Education. Routledge. https://doi.org/10.4324/9780203220993

Gill, M. (2024). Phenomenology as qualitative methodology. https://www.researchgate.net/publication/341104030_Phenomenology_as_qualitative_methodology

Goh, P. S., & Matthews, B. (2019). Student Teachers' Experiences, Challenges, and Strategies During Practicum. *Journal of Educational Research*, 45(3), 113-130.

Hudson, P. (2018). Mentoring in Teacher Education: A Focus on Classroom Management and Lesson Planning. Education Review, *IAFOR Journal of Education*, 60(4), 56-70.

Jantarach, V., & Soontornwipast, K. (2018). EFL student teachers' lesson planning processes: A grounded theory study. Arab World English Journal, 9(3), 311-330. https://doi.org/10.24093/awej/vol9no3.21

Jennings, P. A., & Greenberg, M. T. (2019). The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes. Educational Psychology, 23(3), 89-107. https://doi.org/10.3102/0034654308325693

Kolb, D. A. (2017). Experiential Learning: Experience as the Source of Learning and Development. *Pearson*. https://www.researchgate.net/publication/235701029_Experiential_Learning_Experience_As_The_Source_Of_Learning_And_Development

Korkmaz, G., & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think to online learning. *International Journal of Technology in Education and Science (IJTES),* 4(4), 293-309. https://www.ijtes.net/index.php/ijtes/article/view/110

Kumi-Yeboah, A., Yuan, G., Dogbey, J., & Smith, P. (2020). The impact of digital resources on teaching and learning: A case study of online teaching practices. *Journal of Educational Technology Development and Exchange*, 13(1), 33-48. https://doi.org/10.18785/jetde.1301.03

Larrivee, B. (2017). Transforming Teaching Practice: Becoming the Critically Reflective Teacher. Teachers College Press. https://www.tandfonline.com/doi/abs/10.1080/713693162

Lucas, M., et al. (2020). Field Study Observations of teaching-learning in actual school environment. Lorimar publishing inc., Quezon City, Metro Manila. http://opac.auf.edu.ph:8080/newgenlibctxt/View?CatId=125219&OwnLibId=1&LibraryId=1&From=Library

Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2018). Classroom Management That Works: Research-Based Strategies for Every Teacher. *ASCD*. https://search.worldcat.org/title/Classroom-management-that-works-:-research-based-strategies-for-every-teacher/oclc/53225409

McLeod, S. (2024). Kolb's learning styles and experiential learning cycle. https://www.simplypsychology.org/learning-kolb.html

McLeod, S. (2024). Thematic analysis: A step by step guide, Research Gate. https://www.researchgate.net/publication/381926272_Thematic_Analysis_A_Step_by_Step_Guide

McMillan, J. H. (2020). Classroom Assessment: Principles and Practice for Effective Standards-Based Instruction. *Pearson*. https://archive.org/details/classroomassessm0000mcmi_o2h4

Mitchell, B. S., Hirn, R. G., & Lewis, T. J. (2017). Enhancing effective classroom management in schools: Structures for changing teacher behavior. *Teacher Education and Special Education*, 40(2), 140-153. https://doi.org/10.1177/0888406417700961

Reinke, W. M., Herman, K. C., & Sprick, R. (2020). Proactive classroom management strategies to support effective teaching. In A. A. McIntosh & K. H. Goodman (Eds.), Best practices in behavior management: Evidence-based strategies for educators (pp. 415-436). *Springer*. https://doi.org/10.1007/978-3-031-07853-8_25

Sambell, K., Brown, S., & Race, P. (2019). Assessment to support student learning: Eight challenges for 21st century practice. *All Ireland Journal of Teaching and Learning in Higher Education* (AISHE-J), 11(2). https://ojs.aishe.org/index.php/aishe-j/article/view/414

Sawalhi, R., & Chaaban, Y. (2021). Mentor teachers' and student teachers' perspectives toward teacher leadership. *Mentoring & Tutoring: Partnership in Learning*, 29(1), 70-88. https://doi.org/10.1080/13611267.2021.1899586

Shulman, L. S. (2017). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*, 57(1), 1-22. https://www.sciencegate.app/document/10.17763/haer.57.1.j463w79r56455411

Tomlinson, C. A. (2019). How to Differentiate Instruction in Academically Diverse Classrooms. *ASCD*. https://books.google.com.ph/books/about/How_to_Differentiate_Instruction_in_Acad.html?id=zoh2DgAAQBAJ&redir_esc=y

Tschannen-Moran, M., & Woolfolk Hoy, A. (2017). Teacher Efficacy: Capturing an Elusive Construct. Teaching and Teacher Education, *Science direct,* 17(7), 783-805. https://www.researchgate.net/publication/222564347_Teacher_Efficacy_Capturing_an_Elusive_Construct

What is experiential learning. (2024). https://experientiallearninginstitute.org/what-is-experiential-learning/

Wiliam, D. (2018). Assessment for Learning: Why, What, and How? *Journal of Educational Research*, 56(3), 89-105. https://www.researchgate.net/publication/258423298_Assessment_for_learning_why_what_and_how

Wolff, C. E., Jarodzka, H., & Boshuizen, H. P. (2021). Classroom Management and Teacher Expertise: Theory, Research, and Practice. *Journal of Educational Psychology*, 113(2), 204-221. https://www.semanticscholar.org/paper/Classroom-Management-Scripts%3A-a-Theoretical-Model-Wolff-Jarodzka/22df9f10185892239c629dc23ee888e647dc2ebc

Zeichner, K., & Liston, D. (2019). Reflective Teaching: An Introduction. Routledge. https://www.taylorfrancis.com/books/mono/10.4324/9780203771136/reflective-teaching-kenneth-zeichner-daniel-liston

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