

## Development of transmedia strategy intervention and primer in teaching academic writing

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### **Abstract**

The study investigated the writing difficulties encountered by Grade 11 learners in academic writing, particularly in producing academic texts mandated by the DepEd curriculum, such as critique papers, position papers, and concept papers, within the context of increasing demands for academic literacy and technology integration. Despite the importance of academic writing in preparing learners for higher education and the workforce, many continue to struggle with producing coherent, analytical, and linguistically accurate texts. The study identified and compared the writing challenges of STEM and ABM–HUMSS learners and provided a basis for instructional innovation. A qualitative multiple-case research design was employed, involving sixty-six (66) Grade 11 STEM and ABM–HUMSS learners of Saint Augustine's School, Tagudin, Ilocos Sur, during the second semester of the 2025–2026 school year. Data were collected through content analysis of learners' academic papers, supported by semi-structured interviews and classroom field notes for triangulation. Findings revealed that both groups experienced difficulties in language use and academic tone, organization and coherence, and sustaining analytical critique. STEM learners demonstrated stronger technical and descriptive tendencies but struggled with evaluative depth and academic language, while ABM–HUMSS learners exhibited experiential writing but encountered challenges in coherence, analytical justification, and maintaining academic objectivity. Across both strands, writing difficulties were primarily structural and linguistic rather than conceptual. The study concludes that learners' challenges stem from limited control of academic discourse, evaluative reasoning, and language proficiency. It recommends integrating transmedia and multimodal strategies within the SAMR framework to enhance writing outcomes and support engagement with academic writing tasks.

**Keywords:** academic writing, EAPP, writing difficulties, STEM learners, ABM–HUMSS learners, multimodal learning, SAMR model, transmedia strategy, cross-case analysis

## Development of transmedia strategy intervention and primer in teaching academic writing

### 1. Introduction

Academic and professional writing are essential forms of communication in education and the workplace. Academic writing emphasizes research, objectivity, and evidence-based reasoning, while professional writing focuses on clarity, precision, and practical communication (Moxley & Staggers, 2023; Akkaya & Aydin, 2018). Together, they support academic success, workplace readiness, and global participation. Beyond communication, writing serves as a means of generating knowledge and developing critical thinking, creativity, collaboration, and communication skills (Watson et al., 2025; Stanikzai, 2023). As labor markets evolve, writing competence has become a vital employability skill, enabling graduates to communicate effectively and succeed in academic and professional contexts (Underdahl et al., 2024). Higher education likewise recognizes academic writing as essential for research and professional preparation (Adler-Kassner & Wardle, 2015). Multinational employers rank writing among the most important competencies for new hires (World Economic Forum, 2023), while universities worldwide emphasize academic writing to develop discipline-specific communication skills and prepare learners for global academic and professional contexts (Galloway & Ruegg, 2020).

Despite its importance, writing instruction often remains centered on traditional print-based texts, creating a gap between classroom practices and learners' digital communication experiences (Dahlström & Damber, 2020). While these approaches support basic literacy, they often fall short in developing critical thinking, creativity, collaboration, and communication skills required in the 21st century (Trilling & Fadel, 2009). Consequently, educational reforms increasingly advocate multimodal and technology-enhanced writing tasks that promote engagement and innovation (Cuevas-Cancino et al., 2024; Xujie, 2023; Arslan, 2020). This shift aligns with the United Nations' Sustainable Development Goals, particularly SDG 4 on quality education and SDG 9 on innovation and technological advancement (Ofor-Douglas, 2023; UNESCO, 2017). Research indicates that ICT integration enhances student engagement, digital literacy, communication, and problem-solving skills, making it an essential component of contemporary education (Kalyani, 2024; Martínez-Bravo et al., 2022; Mendez et al., 2021).

In the Philippines, the Department of Education (DepEd) has long recognized ICT as essential to basic education. Policies emphasize ICT integration in teaching, assessment, and collaboration (DepEd, 2017). The DepEd ICT4E Strategic Plan and K-12 curriculum promote learner-centered and competency-based instruction enriched by technology (Manzano, 2023). Research confirms ICT enhances communication, collaboration, and creativity (Wiranda & Ciptaningrum, 2024; Indriani & Zakariyah, 2022). This ensures equity and innovation, preparing Filipino learners for digital citizenship and participation in the global economy. To support ICT integration, schools adopt Learning Management Systems (LMS) to manage content, communication, and assessments (Hodges et al., 2020; Rapanta et al., 2020; Almaiah et al., 2020). Globally, Moodle dominates in many regions, while Blackboard and Canvas are prevalent in North America, and Google Classroom has grown rapidly in K-12 schools (Bozkurt et al., 2020; Hodges et al., 2020). In the Philippines, Moodle and Google Classroom are widely used (Rotas & Cahapay, 2020). Digital competence, including collaboration, problem-solving, and creativity, has become central to modern education frameworks (Cabero Almenara et al., 2022; Vanek, 2019).

Technology now permeates daily life, making digital skills indispensable in education (Malik et al., 2024). Learners' digital literacy is critical to academic, professional, and global communication (Ramli et al., 2023). The SAMR model (Puentedura, 2006) provides a framework for technology use in education, from basic Substitution and Augmentation to transformative Modification and Redefinition. Research suggests SAMR can improve teaching and learning outcomes when supported by professional development and curricular alignment (Zulfiani et al., 2025; European Commission, 2020). Despite its potential, technology integration in many classrooms

remains at the Substitution and Augmentation levels, where digital tools merely replicate traditional tasks with limited redesign (Bicalho et al., 2022; Jenkins, 2021). Studies indicate that transformative applications are uncommon, as technology is often used to support existing practices rather than create new learning experiences (Nguyen, 2024; Handoko, 2020).

To address these limitations, multimodal storytelling and transmedia offer opportunities to redesign writing tasks through the creation and sharing of content across multiple platforms. Research shows that these approaches enhance writing quality, revision practices, motivation, and learner engagement, demonstrating their potential as transformative instructional strategies (Puspitarini et al., 2024; Lim & Kessler, 2023). In the Philippines, English for Academic and Professional Purposes (EAPP) develops learners' academic and professional communication skills through tasks such as critique papers, position papers, concept papers, and technical reports (Palbusa, 2021; DepEd, 2016). However, many learners continue to struggle with content development, organization, writing mechanics, and expressing ideas in academic English (Diego & Protacio, 2025; Roxas, 2020). Despite the increasing importance of digital literacy, instruction remains largely text-centered, with technology often limited to basic applications and used primarily at the substitution or augmentation levels of integration (Lim & Arcilla, 2021).

Filipino learners, often described as digital natives, regularly use technology and digital tools outside school (Feliciano, 2019). However, this digital fluency is not always reflected in classroom practices, where traditional approaches remain dominant (Tindowen et al., 2017). Despite policies promoting digital literacy and global competence, schools frequently underutilize learners' existing technological skills and creative capacities (Delima et al., 2022; Darmanin & Levy, 2021). The gap between learners' digital skills and traditional teaching methods underscores the need for educational innovation. Although studies on technology integration continue to expand, few studies in the Philippines—and even internationally—explicitly connect the SAMR model, transmedia strategies, and difficulties in learners' academic writing pedagogy. Most existing works either address technology use in general or explore academic writing with only limited digital extensions. The transformative potential of transmedia strategies for academic writing tasks within the SAMR framework remains unexplored, particularly through the lens of multiple-case analysis. Specifically, this study explored learners' perceived difficulties in academic writing tasks, compared the findings across the two cases, and developed a Transmedia-SAMR Strategy Intervention and a Contextualized Transmedia Strategy Primer in academic writing that promoted innovative and effective technology integration in academic writing instruction.

## **2. Methodology**

This study employed a qualitative exploratory multiple-case design to investigate the academic writing difficulties encountered by Grade 11 learners in English for Academic and Professional Purposes (EAPP). The design enabled an in-depth examination of two bounded cases—the Science, Technology, Engineering, and Mathematics (STEM) strand and the merged Accountancy, Business, and Management (ABM) and Humanities and Social Sciences (HUMSS) strands—to identify both common and distinct writing difficulties and provide a basis for developing a Transmedia-SAMR Strategy Intervention and a Contextualized Transmedia Strategy Primer (Lim, 2024; Merry, 2024). The study was conducted at the Senior High School Department of Saint Augustine's School, Tagudin, Ilocos Sur, during the second semester of School Year 2025–2026. Participants consisted of sixty-six (66) Grade 11 learners selected through purposive sampling, comprising 38 STEM learners and 28 learners from the merged ABM–HUMSS class (15 ABM and 13 HUMSS) (Nikolopoulou, 2022).

Data were gathered from learners' critique papers, concept papers, and position papers, which served as the primary data source. These were analyzed using a researcher-developed content analysis matrix. Semi-structured interviews and classroom field notes provided additional qualitative data to explore learners' perceived writing difficulties and support methodological triangulation. Audit trails and reflective memoing were maintained throughout the research process to ensure transparency and dependability.

The research instruments underwent expert validation and pilot testing. The content analysis matrix and field notes template were reviewed by the research adviser, while the interview guide was validated by six English language experts and pilot-tested for reliability. The proposed Transmedia-Based Intervention Strategies and Contextualized Transmedia Strategy Primer were subsequently validated through the Delphi Method involving three English language experts until consensus was achieved. Ethical approval was obtained from the Research Ethics Committee and the school administration. Informed consent and assent were secured from participants and their parents or guardians prior to data collection.

Data were collected from November 2025 to April 2026 during the implementation of the EAPP curriculum. Learners completed the required academic writing tasks, after which selected participants took part in face-to-face semi-structured interviews. The writing outputs were analyzed through content analysis (Lyhne et al., 2025), while interview transcripts and field notes were subjected to thematic analysis following the six-phase framework of Caulfield (2019). Methodological triangulation (Bhandari, 2022), member checking (Stahl & King, 2020), within-case analysis, and cross-case synthesis were employed to enhance the credibility and trustworthiness of the findings. The identified writing difficulties served as the basis for developing the Transmedia-SAMR Strategy Intervention and the Contextualized Transmedia Strategy Primer.

Ethical approval was obtained from the Research Ethics Committee of Ilocos Sur Polytechnic State College, and permission was secured from the School Principal of Saint Augustine’s School prior to data collection. Informed consent and assent were obtained from participants and their parents or guardians, with participation remaining voluntary and withdrawal permitted at any stage. Confidentiality was maintained through the use of pseudonyms, secure data handling, and member checking to verify the accuracy of participants’ responses. Interviews were conducted by the researcher using an expert-validated interview guide, and findings were reported objectively in a respectful, non-coercive research environment.

### 3. Results and Discussion

#### 3.1 Cross-Case Analysis of Critique Paper Writing Difficulties in STEM and ABM–HUMSS Classes

The cross-case analysis identified several writing difficulties that were commonly experienced by both STEM and ABM–HUMSS students in position paper writing, indicating shared challenges in *constructing arguments, organizing ideas, integrating evidence, and maintaining appropriate academic language*.

***Sustaining Analytical and Evaluative Critique.*** Across both Grade 11 STEM and ABM–HUMSS classes, learners demonstrated parallel difficulties in sustaining analytical and evaluative critique, organizing ideas coherently, and maintaining appropriate academic language and tone. Analysis of the critique papers indicates that learners from both strands relied heavily on descriptive summary, with evaluative judgments often remaining general, cautious, or insufficiently supported by textual or technical evidence. This tendency toward summary over critique is evident in both groups. For instance, one STEM learner wrote:

*The infomercial was posted on November 2024 and shows the sufferings of children who are suffering of physical, mental, and sexual abuse. . . Overall the infomercial leads us to give all viewers a deep and meaningful message.* STEM Critique Paper 29

This difficulty was also reflected in learners’ self-reported challenges:

*“Likewise, I’m stuck at continuing writing after finishing a sentence, especially when adding more explanations/interpretations. In classifying the weaknesses and strengths of the video, and expanding my insights to provide more analysis were also challenging and hurting my head.”*  
STEM Participant 1

Classroom field notes from the EAPP critique-writing activity (December 10, 2025) supported this finding,

showing that learners focused on descriptive details but hesitated when making evaluative judgments. Many repeatedly reviewed the infomercial, emphasized background information, and asked how to organize their introduction before writing.

While evaluative language is present, the excerpt primarily recounts content rather than analyzing how cinematic or rhetorical elements contribute to the video's effectiveness. A similar pattern appears in ABM–HUMSS critiques, such as the following:

*The strength of the video is that have shown the topic 'violence against children and women' during the children's month through the film. The priest said in the video that there is approximately children must be taught by their parents with good morals, behavior and Christian values.*

ABM-HUMSS Critique Paper 13

This challenge was further reflected in learners' interviews, where several participants admitted struggling to move beyond summarizing the film to critically evaluating it.

*"One of the main difficulties I faced was trying to explain the story and the emotions of the characters without just summarizing the video. I wanted to show how the girl's trauma affected her behavior and choices, but also needed to focus on evaluating the video itself."*

ABM-HUMSS Participant 7

Classroom observations further supported this finding, showing that learners frequently paused, reread instructions, and hesitated while writing. Many also sought confirmations from peers or the teacher before identifying strengths and weaknesses, indicating difficulty applying evaluative criteria and organizing evaluative points during critique writing. In both strands, evaluative judgments were often asserted without sufficient justification, indicating difficulty moving beyond narration to sustained critical evaluation. This aligns with the findings of Lasaten and Pablo (2018), who reported weak idea development and limited supporting analysis, and Leite (2019), who found that learners tend to summarize rather than support evaluative claims with evidence. Likewise, Yin et al. (2023) and Tahira et al. (2019) attribute this difficulty to limited critical-thinking instruction, weak evidence integration, and insufficient experience with argumentative writing. From a cognitive writing perspective, learners can generate evaluative judgments but struggle to elaborate and justify them, resulting in critiques that remain largely descriptive. These findings highlight the need for structured instruction that helps learners transform evaluative judgments into evidence-based academic arguments.

**Organizing and Maintaining Coherence.** Problems related to organization and coherence were also shared across the two strands. Many learners struggled to structure introductions effectively, sequence ideas logically, and clearly distinguish between summary and evaluation. A STEM learner's critique illustrates this issue:

*'Sa Kubli ng Kolorete' is a municipal entry for the infomercial making competition for the highschool division and again is in the theme of protecting the women & children against abuse / harassment although it has it's drawbacks or more like lacking...and although some might not observe it but the attire of the actors in scenes where they are connected is inconsistent... furthermore the film of the play skipped some details so the transition is quite off probably to drinking to rape.* STEM Critique Paper 30

Although the learner signals an evaluative intent, the paragraph shifts immediately into description without establishing clear criteria for critique. Although learners possessed ideas about the text, translating these into a coherent written structure proved difficult, as reflected in their self-reported experiences:

*"I knew what I wanted to point out, but putting my ideas into clear and well-connected paragraphs was difficult. Sometimes, I had to reread my work to check if my ideas made sense."*

STEM Participant 2

The STEM critiques reflected similar organizational challenges. Classroom field notes (December 11–12, 2025) showed that learners focused heavily on background information, repeatedly revisited the infomercial, and frequently paused or consulted peers to validate their evaluative judgments, indicating difficulty organizing ideas and sustaining evaluation (*STEM EAPP – Critique-Writing Activity, December 11–12, 2025*). This supports Wood’s (2022) finding that learners’ critiques often exhibit weak organization, blurred summary-evaluation boundaries, and repetitive conclusions.

Similarly, an ABM–HUMSS learner wrote:

*First of all is the clarity of message is understandable... Second is the emotional income... Third is cinematography or the visual... Fourth is the soundtrack and audio... Lastly is the overall impact...* ABM-HUMSS Critique Paper 4

Several participants explicitly reported challenges in arranging ideas, structuring their critiques, and ensuring logical flow across sections of the paper. As one learner explained:

*“Another challenge I face is organizing thoughts and being able to write down ideas and opinions coherently.”* ABM-HUMSS Participant 6

Classroom observations further supported this finding. Learners frequently asked about the structure of the critique and how to identify strengths and weaknesses, showing uncertainty about organization (ABM-HUMSS EAPP Drafting of Critique Body, December 11, 2025). During writing, many hesitated before composing, and some submitted incomplete or minimally revised conclusions, indicating continued difficulty organizing ideas and achieving structural closure (*ABM-HUMSS EAPP Drafting of Critique Body, December 12, 2025; ABM-HUMSS EAPP Submission of Critique Paper, December 14, 2025*).

Here, strengths and weaknesses are listed rather than developed, resulting in fragmented analysis. These organizational weaknesses support Hajan *et al.*’s (2024) conclusion that senior high school learners often demonstrate only basic proficiency in structuring academic texts, particularly in introductions and conclusions. This finding calls for English teachers to move beyond product-oriented assessment and incorporate structured modeling, think-aloud demonstrations, graphic organizers, and iterative feedback cycles that make the cognitive processes of organizing and developing analysis visible to learners, thereby strengthening their ability to construct coherent and sustained academic arguments.

***Employing Academic Language and Tone.*** Difficulties in academic language and tone further emerged as a shared challenge. Both groups exhibited grammatical errors, awkward sentence constructions, and inconsistent academic voice. For example, a STEM learner noted:

*It also educates the public on bullying, abuse, and harassment and promotes protection against violence on women and children with the help of the police, a lawyer, and a priest (Fr. Cristeto A. Cortez) because n the infomercial, the rebellion of children can also be seen, such as drinking alcohol, neglecting their studies, and bullying their fellow learners.* STEM Critique Paper 33

STEM learners themselves acknowledged these challenges, as one reflected in the interview response:

*“Another issue I encountered was forming proper sentences that suit and present my opinion towards the film. I had a hard time in such due to not also synchronizing within sentences which ended up confusing me further.”* STEM Participant 24

Classroom field notes further supported this finding. During the December 16, 2025 critique-writing activity, several learners struggled to express evaluative ideas in English, often switching to Filipino or Ilocano and relying on peers for translation before writing (STEM EAPP – Critique-Writing Activity, December 16, 2025).

Likewise, an ABM–HUMSS learner wrote in the paper:

*In this critique I gave an criteria which I decide if this is the strengths or the weaknesses of the video commercial. We will see the positive or negative feedback of this video commercial by identifying using an criteria.* ABM-HUMSS Critique Paper 22

Learners' interviews further highlighted difficulties with vocabulary choice, sentence construction, and grammatical accuracy. Several participants shared:

*"I also find it difficult on describing what I notice and explaining why these details matter. Most especially, I found it hard in constructing my words not knowing if my grammar is correct."*  
ABM-HUMSS Participant 27

These responses show that language-related challenges affected not only accuracy but also learners' confidence and fluency in academic writing. Classroom observations supported this finding, as learners struggled with grammar, vocabulary, and writing introductions and evaluative statements, often erasing and rewriting sentences (*ABM-HUMSS EAPP Critique-Writing Activity, December 11–12, 2025*). During revision, many focused mainly on grammar and spelling rather than improving ideas or analysis, limiting the overall quality of their critiques (*ABM-HUMSS EAPP Critique-Writing Activity, December 13, 2025*).

These findings support Prapobratanakul (2024) and Gamilo and Aggabao (2019), who identified sentence-level language skills and academic voice as persistent challenges in senior high school writing. From Flower and Hayes' (1981) cognitive writing model, these difficulties reflect constraints in the translating process, where learners struggle to convert ideas into appropriate academic discourse. As cognitive resources are devoted to grammar, vocabulary, and sentence construction, learners often rely on conversational language that weakens academic quality. This highlights the need for explicit instruction in academic language through vocabulary development, sentence-building, and guided rewriting activities.

### *3.2 Distinct Writing Difficulties of STEM and ABM-HUMSS Classes in Critique Paper Writing*

Despite these shared challenges, clear differences emerged between STEM and ABM-HUMSS learners in the nature and sources of their writing difficulties.

***Articulating Analytical Thinking through Academic Discourse.*** STEM learners' challenges were primarily cognitive and linguistic. Their critiques often reflected hesitation in articulating evaluative judgments and difficulty translating analytical thinking into written academic discourse. One STEM learner acknowledged this limitation implicitly through cautious phrasing:

*When I watched the film, I found a few things that could be better. I felt that the father of the main lead has limit development. The actor should improve more of her feelings or what he was thinking so it would be interesting.* STEM Critique Paper 22

The repeated use of vague evaluative language ("some", "may", "could") suggests uncertainty in asserting critical positions, even when analysis is expected. This pattern indicates difficulty sustaining firm evaluative stances rather than affective resistance to critique. The interview excerpts below demonstrate that STEM learners' writing challenges were largely rooted in skill- and language-related constraints, particularly in expressing precise evaluative judgments and translating their analytical thinking into organized and coherent written critique.

*"There were moments when it was confusing for me to decide which are truly significant and needed improvements, especially when the work has both strength and weakness. But even though it is somehow confusing and difficult for me, following a standard or criteria makes it easier to do."* STEM Participant 4

This suggests that STEM learners' critique writing difficulties stem less from weak analytical ability and more from challenges in articulating reasoning through academic language. Their hesitation in expressing evaluative

judgments and translating analytical thinking into written discourse points to a gap between cognitive competence and linguistic proficiency. As Uccelli (2023) explains, analytical writing places high demands on learners' language resources, and even learners who can reason analytically often struggle to express that reasoning in academically appropriate written forms.

Viewed through Flower and Hayes' (1981) Cognitive Process Theory of Writing, learners can generate evaluative ideas during planning but struggle to translate them into precise academic language. Limitations in monitoring further reduce their ability to clarify and refine evaluative claims, resulting in critiques that only partially express their analytical thinking. These findings highlight the need for explicit scaffolding through think-aloud modeling, guided critique frameworks, sentence-level supports, and iterative feedback to help learners develop evidence-based academic arguments.

**Maintaining Academic Objectivity.** In contrast, ABM–HUMSS learners exhibited additional affective constraints that compounded their writing difficulties. Beyond issues of analysis, organization, and language use, many struggled to maintain academic objectivity, particularly when engaging with sensitive themes such as abuse and trauma. One ABM–HUMSS learner explicitly foregrounded emotional involvement:

*The story focuses on a teenage girl who suffers abuse from her own father. The trauma she experiences deeply affects her, changing her behavior. She joins friends who do bad things, drinks alcohol, stays out late, and even bullies other learners. It is obvious in the video that she is acting in this way because she is really hurting and not because she is 'bad.' I was forced to think about how trauma might affect someone's choices and behaviors after watching this.*

ABM-HUMSS Critique Paper 2

The following verbatim responses illustrate how ABM–HUMSS learners' writing difficulties were compounded by affective constraints, particularly their struggle to separate personal emotions from objective evaluation:

*"My challenges and difficulties in making my critique are separating my personal opinions and emotions in order to give a fair judgment. It is also difficult to identify weaknesses because the film is very well made, with no harsh or disappointing elements, which makes finding flaws challenging."* ABM-HUMSS Participant 5

These excerpts show how emotional engagement led to softened or vague critiques, limiting critical depth and supporting Aldayel et al.'s (2026) view that academic writing is shaped by emotional as well as cognitive and linguistic factors. The findings indicate that ABM–HUMSS learners struggled to maintain academic objectivity when evaluating sensitive topics. This highlights the need for explicit instruction in evidence-based evaluation, analytical frameworks, and neutral academic language. English teachers should model the distinction between personal reactions and academic judgments, use structured critique frameworks, and provide guided practice in supporting evaluations with textual evidence.

Viewed collectively, the cross-case analysis shows that both STEM and ABM–HUMSS learners experienced common difficulties in sustaining analysis, organizing ideas, and maintaining academic language in critique writing. This supports Cuayzon (2024), who identified persistent problems in organization and analytical discussion, and Portillo-San Miguel (2021), who highlighted challenges in academic language and coherent argumentation. These findings suggest that critique writing is a complex academic task requiring explicit instruction across disciplines. However, the nature of these difficulties differed by strand. STEM learners primarily struggled to express evaluative reasoning clearly and precisely, consistent with Dyussebekova and Ti (2021), Kort et al. (2024), Pilotti (2022), Hubbard (2021), and Paugh (2021), who link these challenges to STEM curricula's emphasis on quantitative problem-solving over argumentative writing.

In contrast, ABM–HUMSS learners' difficulties were shaped by cognitive, linguistic, affective, and contextual

factors, particularly emotional involvement and fear of negative judgment. Studies by Ulmanen (2016) and Pilotti (2022) show that writing anxiety and emotional engagement can limit learners' willingness to adopt clear evaluative stances. Viewed through Flower and Hayes' Cognitive Process Theory of Writing (1981), both groups struggled with planning, translating, and reviewing, but in different ways: STEM learners had difficulty translating ideas into precise academic language, while ABM–HUMSS learners struggled to maintain objectivity. These findings underscore the need for differentiated instruction through guided critique frameworks, peer review, and transmedia-based writing activities that strengthen evidence-based academic judgment writing activities.

### 3.3 Cross-Case Analysis of Position Paper Writing Difficulties in STEM and ABM–HUMSS Classes

The cross-case analysis revealed that STEM and ABM–HUMSS students shared several common difficulties in position paper writing, particularly in *sustaining analytical and evaluative argumentation, connecting research evidence to arguments, organizing and maintaining coherence, and applying appropriate academic language and writing conventions.*

***Sustaining Analytical and Evaluative Argumentation.*** Across both Grade 11 STEM and ABM–HUMSS classes, learners exhibited parallel difficulties in sustaining analytical argumentation, integrating research evidence meaningfully, organizing ideas coherently, and maintaining consistent academic language and tone in their position papers. Content analysis of the papers shows that while learners demonstrated clear awareness of the issues they were addressing, their arguments frequently remained descriptive or generalized rather than analytically developed. For instance:

*Through an improved laboratory experience, learners will become more motivated and hardworking, because a proper laboratory is essential for quality learning. Upgrading the laboratory is the best way to improve the current situation and help learners maximize their potential.* STEM Position Paper 13

Learners themselves acknowledged this difficulty during interviews as some shared:

*“The challenges or barriers did encounter when accomplishing my EAPP Position Paper are finding the right and best information's and datas that will support the topic I chose. I also struggle in writing and choosing the right words to express my idea and arguments. and lastly I also struggled in choosing the right supporting evidences which I have listed for my claims, I was not able to use it all because its hard to find connections from them and to my ideas.”*  
STEM Participant 31

Claims were often stated confidently but were supported with limited explanation of how or why the presented evidence strengthened the argument. Field notes supported this finding. During the February 11, 2026 drafting session, most learners completed their papers on time, but several body paragraphs repeated ideas and offered only brief explanations, reflecting limited analytical development (*STEM EAPP – Position Paper Drafting Session, February 11, 2026*). Similarly, although fact sheets were strengthened with additional evidence during revisions, final papers often explained the significance of that evidence only briefly (*STEM EAPP – Fact Sheet Development, January 27 & February 6, 2026*).

Similarly, some learners from ABM–HUMSS learner wrote:

*In the classroom, concerns about distraction and misuse are valid. The cons of using phone including distraction, lack of focus, and overdependence. Phone can easily pull a learners attention away from lessons. This not only impacts the individual learners learning but can also disrupt the entire classroom environment.* ABM-HUMSS Position Paper 18

Learners' own written responses further reflect this difficulty, as seen in the following verbatim excerpts:

*“Sometimes I already know what I want to say, but I struggle with how to connect my arguments, evidence, and counterarguments smoothly.”* ABM-HUMSS Participant 1

Classroom field notes confirmed that ABM and HUMSS learners struggled to develop analytical depth despite active participation. During research and drafting, they often relied on non-scholarly sources, listed references without explanation, and repeated ideas rather than developing arguments. Final papers also tended to restate claims instead of synthesizing discussions or addressing counterarguments (*ABM-HUMSS EAPP – Classroom Discussion, January 20, 2026; Computer-Assisted Research Session, February 02, 2026; Fact Sheet Review Session, February 06, 2026; Drafting Session, February 11, 2026; Submission Period, February 16–20, 2026*).

Although both excerpts express a clear stance, the reasoning remains surface-level, with limited contextual explanation, supporting evidence, or discussion of broader implications. This suggests difficulty sustaining analytical reasoning beyond initial assertions. Similar findings were reported by Samosa (2021), who observed that senior high school writers often struggle to connect claims, evidence, and reasoning in extended academic arguments. Cuayzon (2024) and Portillo-San Miguel (2021) likewise found that learners experience difficulty integrating reasoning, evidence, and rhetorical structure in argumentative writing. These findings support Flower and Hayes’ (1981) Cognitive Process Theory of Writing, which emphasizes the recursive processes of planning, translating, and reviewing. While learners could generate initial claims, they struggled to elaborate and refine them into sustained analytical arguments. Therefore, English teachers should provide learning experiences that strengthen evidence analysis, logical reasoning, and deeper argument development.

**Connecting Research Evidence to Arguments.** A second shared difficulty involved the integration and interpretation of research evidence. Both groups demonstrated effort in incorporating statistics, scholarly sources, and policy references; however, evidence was frequently presented through citation stacking rather than analytical synthesis. For example, a STEM paper reported multiple research findings consecutively:

*According to the study of Rehman et al. (2025), an effective 21st-century STEM laboratory must be inclusive and accessible. Resource availability—such as funding, materials, and trained teachers—strongly influences how well learners from diverse backgrounds can benefit from STEM learning. ... According to Rifandi, et al. (2019), According to a literature review on STEM education, preparing learners for the 21st century requires instructional models that are connected to real-life contexts.* STEM Position Paper 13

Learners admitted this tendency. One participant shared:

*“I also struggled in choosing the right supporting evidences which I have listed for my claims, I was not able to use it all because it’s hard to find connections from them and to my ideas.”*  
STEM Participant 31

Classroom field notes further corroborated the challenge of evidence synthesis. During research and drafting, learners incorporated multiple scholarly sources but often presented citations with little analytical commentary, emphasizing evidence collection rather than interpretation (*STEM EAPP – Computer-Assisted Research Session, February 2, 2026; STEM EAPP – Fact Sheet Development, January 27, 2026*). Although revisions added more statistics and citations, learners still struggled to critically interpret and contextualize evidence within the school’s local setting (*STEM EAPP – Fact Sheet Revision Session, February 6, 2026*).

Similarly, an ABM–HUMSS learner summarized several authorities without connecting them analytically:

*Spencer (2022) highlighted that inflation and supply chain disruptions have increased school meal prices, contributing to food insecurity among learners. Similarly, Sutton Trust (2023) reported that many learners spend less than the minimum needed on food, often skipping meals to save money. Conroy et al. (2021) emphasized that financial aid can help learners manage these expenses and support academic success.* ABM-HUMSS Position Paper 11

Learners themselves acknowledged these challenges, as reflected in the following responses:

*“Additionally, structuring the paper logically ensuring a clear thesis, strong evidence, and a coherent flow between paragraphs is a major challenge.”* ABM-HUMSS Participant 28

Classroom field notes indicated that ABM and HUMSS learners struggled with argument framing and rhetorical control. During drafting, paragraphs often repeated ideas, used abrupt transitions, and failed to sustain the initial stance. Similarly, conclusions largely restated earlier claims without synthesizing opposing perspectives or strengthening the overall argument, highlighting the need for stronger scaffolding in developing coherent arguments (*ABM-HUMSS EAPP–Drafting Session, February 11, 2026; ABM-HUMSS EAPP–Submission Period, February 16–20, 2026*).

In both cases, research findings are presented but not critically interpreted or synthesized in relation to the central claim. Evidence serves mainly as informational support rather than argumentative reasoning. This pattern aligns with Gonzales (2022) and Lundstrom et al. (2015), who found that learners often equate the quantity of citations with argumentative strength while struggling to synthesize sources critically. This finding supports Flower and Hayes’ (1981) Cognitive Process Theory of Writing by showing learners’ difficulty transforming retrieved information into meaningful arguments. Although learners incorporated research sources, they treated evidence as isolated information rather than connecting it to their claims. Consequently, the persuasive value of their position papers was limited, highlighting the need for instruction that promotes critical engagement with evidence rather than simple source reporting.

***Organizing and Maintaining Coherence.*** Organizational and structural coherence also emerged as a common challenge across the two strands. While most papers followed the expected introduction–body–conclusion format, many paragraphs repeated central ideas rather than progressively developing them, and transitions between claims were often abrupt or loosely connected. In several STEM papers, arguments were reiterated with minimal conceptual expansion, as shown in the following example:

*Introduction: Single-use plastics must be banned to protect the environment, encourage eco-friendly living, and help people develop responsible habits.*

*Conclusion: Schools must ban single-use plastics to protect the environment, encourage eco-friendly living, and develop responsible habits among teachers, staff, and especially learners.*  
STEM Position Paper 32

Learners themselves explicitly acknowledged these organizational and structural difficulties during the interview sessions, as reflected in their interview responses:

*One challenge that I face when I writing my position paper is organizing my ideas clearly, and sometimes I know what I want to say, but it’s hard to arrange all my thoughts in the right order.”*  
STEM Participant 12

Classroom field notes indicate that while learners generally followed the required structure of the position paper, organizational refinement remained limited. During research and drafting, learners focused on gathering information and presenting multiple citations rather than synthesizing evidence (*STEM EAPP – Fact Sheet Development, January 27, 2026; STEM EAPP – Computer-Assisted Research Session, February 2, 2026*). Although most learners completed their papers by the drafting session, revisions emphasized content completion more than strengthening analysis or refining academic conventions (*STEM EAPP – Drafting Session, February 11, 2026*).

A similar pattern appeared in ABM–HUMSS papers, where ideas were structured as sequential points rather than integrated analytical paragraphs:

*First, food inside the school costs more than outside. For example, a rice meal costs ₱45 in the canteen but only ₱40 outside. A C2 costs ₱20 inside but ₱15 outside. A donut costs ₱10 each inside, while outside you can buy three donuts for ₱20. This shows that learners pay more inside the campus.*

*Second, many learners only receive ₱100 to ₱150 per day. If a learner spends ₱75 on one meal and snack, there is little money left for transportation or school projects.*

ABM-HUMSS Position Paper 7

This structural pattern was further reinforced by learners' own reflections during interviews, where they acknowledged difficulties in organizing and coherently developing their ideas throughout the paper:

*"The challenges or barriers that I encounter when accomplishing my position paper is that the difficulty in organizing my ideas. sometimes I struggle to connect my arguments smoothly."*

ABM-HUMSS Participant 20

Classroom field notes confirm that organizational coherence was a recurring challenge in ABM-HUMSS position papers. During fact sheet review and drafting, learners often presented evidence with limited elaboration, repeated ideas, and used abrupt transitions, resulting in uneven development of arguments. During the submission period, many conclusions simply restated claims without synthesizing ideas or addressing opposing views, indicating the need for greater support in paragraph development and cohesive organization (*ABM-HUMSS EAPP – Fact Sheet Review Session, February 06, 2026; Drafting Session, February 11, 2026; Submission Period, February 16–20, 2026*).

These patterns suggest reliance on listing rather than layered reasoning. Similar tendencies have been observed among senior high school learners, whose arguments often present sequential points without sufficient expansion or connection, resulting in fragmented development (Aribatado & Jamora, 2025). This finding supports Flower and Hayes' (1981) Cognitive Process Theory of Writing, which emphasizes the continual development and refinement of ideas during writing. While learners generated relevant points, they struggled to develop coherent chains of reasoning. Therefore, English instruction should explicitly teach learners to elaborate, connect, and deepen ideas through analytical writing, guided argument construction, recursive drafting, and targeted feedback.

***Applying Academic Language and Writing Conventions.*** Difficulties in academic language and writing conventions further appeared across both strands. Although learners were able to communicate their positions, grammatical errors, awkward sentence construction, and informal phrasing weakened the clarity and professionalism of the papers. For instance, a STEM learner wrote:

*But our government in the Philippines is have a program to reduce plastics because they are very harmful to nature. Because of this, I truly think single-use plastics should be banned in our school and in the public market because plastics are bad to our environment.* STEM Position Paper 7

Learners recognized these linguistic struggles. One participant stated:

*"Sometimes I also can't find the right grammar for my sentence making it feel awkward to read. I also struggle with time management that's why most of the time my activities are rush."*

STEM Participant 1

Classroom field notes supported this challenge. Although learners revised their drafts and strengthened evidence integration, many final outputs still contained mechanical errors, awkward constructions, informal language, and subject–verb agreement problems, indicating difficulty translating research into a polished academic tone (*STEM EAPP – Fact Sheet Revision Session, February 06, 2026; STEM EAPP – Drafting Session, February 11, 2026*).

Likewise, an ABM–HUMSS paper included the following construction:

*When learner are distracted by their phones, they will not be concentrate in their lessons and they will be more focus on their cellphones. This is not only affects their own learning but also distract the entire classroom or campus because of the noise of their electronic devices or phones.*

ABM-HUMSS Position Paper 14

These challenges were explicitly acknowledged by the learners themselves during the interview sessions, where they admitted difficulties in sustaining analytical depth, synthesizing evidence, and developing coherent arguments:

*“I also tend to overthink my grammar and word choice, especially because it needs to sound academic and formal, which makes the writing process slower and more stressful.”*

ABM-HUMSS Participant 1

Classroom field notes indicate that ABM and HUMSS learners experienced difficulties with academic writing conventions throughout the writing process. During fact sheet development, they often relied on interviews instead of credible academic sources. This pattern continued during drafting, where run-on sentences, subject–verb agreement errors, and informal language weakened the academic tone of their position papers (*ABM-HUMSS EAPP – Fact Sheet Development, January 27, 2026; ABM-HUMSS EAPP – Drafting Session, February 11, 2026*).

These sentence-level errors reflect persistent challenges in grammatical accuracy and academic register. Similar difficulties in subject–verb agreement, sentence boundaries, and formal academic language have been reported among senior high school writers (Contreras, 2023; Portillo-San Miguel, 2021). Flower and Hayes’ (1981) Cognitive Process Theory of Writing suggests that struggles with language form may limit the cognitive resources available for higher-order processes such as analysis and argumentation. Thus, English instruction should integrate language development with critical writing to help learners express analytical ideas more effectively.

### 3.4 Distinct Writing Difficulties of STEM and ABM–HUMSS Classes in Position Paper Writing

Despite these shared challenges, the nature of the difficulties diverged between the two strands, reflecting differences in rhetorical orientation and disciplinary framing.

**Supporting Claims Through Analytical Use of Evidence.** STEM position papers tended to adopt a more impersonal and research-oriented argumentative style, emphasizing formal structure, technical explanation, and references to academic studies, policy reports, and statistical data. This research-oriented tendency is reflected in the following excerpts:

*Globally, more than 400 million metric tons of plastic are produced each year, with about 40% intended for single use (Organisation for Economic Co-operation and Development [OECD], 2022). These plastics persist, breaking down into microplastics that contaminate water, food, air, and even the human body (United Nations Environment Programme [UNEP], 2023.).*

STEM Position Paper 2

These excerpts illustrate how STEM learners frequently construct arguments through research-based evidence and scientific authority, reinforcing an impersonal and technically grounded style. Learners’ interview responses further reveal how this research-oriented writing approach also created practical challenges during the writing process:

*“Another difficulty I encounter is finding credible sources and integrating them properly into my paper without sounding repetitive. I also tend to overthink my grammar and word choice, especially because it needs to sound academic and formal, which makes the writing process slower and more stressful.”* STEM Participant 6

Consistent with disciplinary writing practices, learners' position papers generally included clear thesis statements, organized arguments, and research-based support (Gamilo & Aggabao, 2019). However, evidence was often presented with limited interpretation, reflecting learners' difficulty connecting claims and sources despite following formal argumentative structures (Cheong et al., 2021). As a result, citations frequently served as procedural requirements rather than tools for advancing reasoning, leaving arguments analytically underdeveloped due to limited source evaluation, synthesis, and authorial engagement (Allagui, 2024). Viewed through Flower and Hayes' (1981) Cognitive Process Theory of Writing, this pattern suggests that learners could incorporate evidence but struggled to transform it into critical analysis. Therefore, English writing instruction should emphasize source interpretation, evaluation, and synthesis through explicit modeling and guided practice.

***Framing Arguments Around Social and Personal Perspectives.*** ABM–HUMSS position papers demonstrated stronger engagement with lived experience and audience awareness, often grounding arguments in peer observations, testimonial narratives, and value-driven appeals related to fairness, discipline, or learner welfare. This orientation toward experiential and socially grounded reasoning is evident in the following excerpts:

*Based on my interviews, learners actually feel this. Gao-ay, Maria Angela., a Grade 10-2 VP, mentioned that rules like the one against excessive makeup help keep things orderly and remind us that 'simplicity is beauty.' By stopping 'boisterous' or loud behavior, the school creates a peaceful place where we can focus on our studies. ABM-HUMSS Position Paper 25*

These examples demonstrate how ABM–HUMSS learners frequently anchor their arguments in personal observation, peer testimony, and value-oriented reasoning that foregrounds social experience. This pattern of grounding arguments in lived experiences and peer perspectives is further reinforced by learners' interview responses regarding how they gathered and developed evidence for their position papers.

*"I have to conduct my own interview because I had a hard time looking for relevant studies that I could use in my position paper. I also wanted to improve and strengthen the credibility of my evidence so I gathered data from both learners of SAS, and also alumni."*

ABM-HUMSS Participant 8

This pattern of grounding arguments in lived experiences and peer perspectives was also evident in learners' interview responses about how they gathered evidence for their position papers. From a cognitive writing perspective, reliance on experiential knowledge suggests that learners find personal experiences more accessible than research-based evidence, limiting deeper analytical engagement. This tendency is supported by studies on HUMSS and ABM writing practices. Portillo-San Miguel (2021) found that HUMSS learners commonly rely on narration and analogy when developing arguments on political and social issues, while Divina (2025) observed that learners often use personal experiences and emotionally resonant language to strengthen arguments. Together, these findings reinforce learners' reliance on experiential grounding and socially situated perspectives rather than systematic analytical evidence.

These contrasting tendencies reflect distinct argumentative orientations across the two strands. STEM papers emphasized research-based evidence and formal academic conventions, whereas ABM–HUMSS papers relied more on human experience, institutional values, and community concerns. These differences suggest the need for differentiated writing instruction. STEM learners should be guided to interpret and synthesize evidence rather than simply accumulate sources, while ABM–HUMSS learners should strengthen experiential arguments with systematic evidence and critical analysis. Across both strands, English teachers should design writing tasks that integrate evidence, reasoning, and audience awareness to develop discipline-responsive academic argumentation.

### 3.5 Cross-Case Analysis of Concept Paper Writing Difficulties in STEM and ABM–HUMSS Classes

The cross-case analysis revealed that STEM and ABM–HUMSS students shared several common difficulties in concept paper writing, particularly in *constructing grammatically accurate sentences, organizing ideas*

*coherently, sustaining analytical depth, and synthesizing evidence and argumentation.*

**Constructing Grammatically Accurate Sentences.** An examination of the Grade 11 STEM and ABM–HUMSS concept papers reveals that both groups encounter similar difficulties in constructing clear, coherent, and analytically sound academic texts. Although learners from both strands were able to identify relevant school-based concerns and propose possible solutions, their writing frequently fell short in terms of clarity of expression, logical organization, depth of analysis, and effective use of supporting evidence.

One recurring difficulty evident in both strands is limited control over grammar and sentence construction. In STEM papers, this is often reflected in lengthy and poorly structured sentences that attempt to combine multiple ideas without clear boundaries, such as:

*Since the world is rapidly advancing and technologies are becoming more common, a lot of people have experience of cyber bullying, for instance people are experiencing a lot of harsh comments on TikTok, X, Facebook and more applications, some also have experience having death threat calls...* STEM Concept Paper 6

Participants' responses showed frequent grammatical errors and difficulty forming clear, well-constructed sentences.

*"I overthink my grammar and worry if my sentences are correct, and constructing clear and well-organized sentences was a challenge for me."* STEM Participant 14

Classroom field notes further corroborate learners' difficulties in constructing grammatically accurate sentences and expressing ideas clearly. Although learners completed their outputs on time, many papers were brief, lacked development, contained formatting issues, and required last-minute revisions. These observations suggest that while learners could generate ideas, they struggled to express them through well-structured, grammatically accurate writing, affecting the clarity and coherence of their concept papers (*STEM EAPP – Regrouping Session, March 4, 2026; STEM EAPP – Submission Session, March 10, 2026*).

Similarly, ABM–HUMSS learners demonstrate comparable issues in sentence clarity and grammatical accuracy, as seen in:

*Based on the result of our survey about questioning all of the high school learners (Grade7-12) if Saint Augustine's School restrooms are clean and is comfortable to use or to go to, we discovered that 14.62% strongly disagree, 18.37% disagree, 43.99% answered neutrally, 19.60% agree, and 4.32% strongly disagree that . . .* ABM-HUMSS Concept Paper 2

Some ABM-HUMSS learners understand this weakness as reflected in their interview:

*"The challenges or barriers that I encounter when accomplishing my EAPP concept paper is that choosing what topic should we use or do, I also have challenges in writing, my grammar, and how I will state the words, I also feel unsure in our work if it's already good or not that why it makes the task a bit challenging."* ABM-HUMSS Participant 4

Classroom field notes corroborate this challenge. During drafting, learners experienced difficulty expressing ideas clearly due to issues in grammar and word choice. Although most concept papers followed the prescribed format during submission, weak language control affected the precision and credibility of their writing (*ABM & HUMSS – Grade 11 – Drafting Session, March 3, 2026; ABM & HUMSS – Grade 11 – Submission of Concept Paper Outputs, March 10, 2026*).

While the intended meaning remained understandable, persistent errors in sentence structure, subject–verb agreement, and phrasing weakened the academic quality of the writing. Similar challenges have been reported among senior high school learners, particularly in subject–verb agreement, tense consistency, grammar, mechanics,

vocabulary precision, and repetitive language use (Verceles, 2025; Ediang & Celesio, 2025). Flower and Hayes' (1981) Cognitive Process Theory of Writing suggests that these difficulties occur during the translating process, where ideas are encoded into written language. Therefore, English teachers should provide systematic instruction and targeted feedback on language conventions within authentic academic writing tasks.

**Organizing Ideas Coherently.** Another shared concern lies in the organization and coherence of ideas. STEM papers often show repetition and weak progression, where ideas are restated rather than developed, as illustrated in:

*The improvement of the library system of Saint Augustine's School is not just about making a physical improvement to the school facility but also about creating a facility where learners are encouraged to learn and explore... The improvement of the library system through the use of a digital attendance system and the improvement of the bookshelves where learners can find their books can definitely encourage learners to explore and use the library facility to its full potential.*  
STEM Concept Paper 5

Learners themselves acknowledged these writing difficulties in their interview responses:

*"I struggled with how to start each paragraph, especially when I'm unsure how to introduce my ideas clearly. I also find it difficult to choose the right words that best express what I want to explain. I overthink my grammar and worry if my sentences are correct, and constructing clear and well-organized sentences was a challenge for me."* STEM Participant 14

Classroom field notes further corroborate learners' difficulties in organizing ideas coherently. During drafting and regrouping, learners produced brief, underdeveloped drafts that required reorganization to improve content and structure. By the submission session, several papers still showed formatting and section arrangement issues, indicating continued difficulty in organizing ideas into a coherent and logically progressing concept paper (*STEM EAPP – Drafting Session, March 2, 2026; STEM EAPP – Regrouping Session, March 4, 2026; STEM EAPP – Submission Session, March 10, 2026*).

In contrast, ABM–HUMSS papers tend to present ideas in loosely connected or mismatched sections, particularly between the identified problem and the proposed methodology:

*This project aims to improve the cleanliness and condition of the restrooms at Saint Augustine's School in order to support learners' health, hygiene, and comfort. Some learners have observed problems such as unpleasant odors, dirty or wet floors, clogged toilets, and trash that is not regularly disposed of."* ABM-HUMSS Concept Paper 2

In the interview sessions, some learners acknowledged this issue, as evident in their sharing:

*"The specific challenges or barriers I encounter when accomplishing our EAPP Concept paper writing tasks is I find it hard to explain and express my thoughts. Additionally, I had a hard time interpreting our gathered data and I didn't know where to insert it in our paper. Even though I have an idea on the structure of the paper I still struggle to organize it while making sure that the grammar is correct and appropriate in academic writing."* ABM-HUMSS Participant 9

Classroom field notes corroborate that although ABM and HUMSS learners showed familiarity with the structure of a concept paper, they continued to struggle with word choice, grammar, and sentence construction during drafting. By the submission session, most papers followed the required format, but adherence to presentation guidelines did not always translate into depth or originality of ideas (*ABM & HUMSS – Grade 11 – Initial Discussion of the Concept Paper, February 24, 2026; ABM & HUMSS – Grade 11 – Drafting Session, March 3, 2026; ABM & HUMSS – Grade 11 – Submission of Concept Paper Outputs, March 10, 2026*).

In both strands, these patterns reflect persistent difficulty in sustaining logical flow and organizing ideas into a cohesive argument. Rather than developing ideas progressively, learners often listed points or shifted between them without clear connections. Such organizational breakdowns suggest limitations in planning, monitoring, and integrating ideas throughout the writing process. This finding supports Flower and Hayes' (1981) Cognitive Process Theory of Writing, which emphasizes coordinating multiple ideas into a unified rhetorical framework. Similarly, Cabilan et al. (2026) found that multilingual senior high school learners often struggle with coherence and logical organization despite adequate sentence-level skills, while Reyes et al. (2025) reported similar challenges among Grade 11 HUMSS learners. Therefore, English writing instruction should explicitly teach coherence-building strategies that help learners connect ideas into sustained academic arguments.

***Sustaining Analytical Depth.*** A further area of similarity is the limited depth of analysis. Learners across both groups tend to present claims that remain at a surface level, with minimal explanation of underlying causes or implications. For instance, a STEM paper states:

*This website can contribute to reduce cyber bullying around the world. To address this problem is crucial to the people who are victim of cyber bullying and the offenders.*  
STEM Concept Paper 6

This indicates that learners tend to describe situations rather than critically engage with them. Learners' interview responses share this writing challenge:

*"The specific challenges or barriers that I have encounter when I am accomplishing my EAPP concept paper are getting an idea on what are the main problems on the school that should be solved immediately. Second getting an idea to solve the problem at our school."*  
STEM Participant 8

Classroom field notes further corroborate learners' difficulties in sustaining analytical depth. During discussions and brainstorming, learners generated practical proposals, but these were often based on preference or feasibility rather than critical evaluation. Although some ideas were refined, many lacked sufficient justification and analysis, indicating difficulty in critically developing and supporting their proposals (*STEM EAPP – Initial Discussion, February 23, 2026; STEM EAPP – Continuation of Discussion, February 24, 2026; STEM EAPP – Brainstorming Session, February 27, 2026*).

Likewise, an ABM–HUMSS paper asserts:

*By ensuring that all the basic necessities are provided and is readily available at all times, this reflects of the Christian values of discipline among the Augustinians.*  
ABM-HUMSS Concept Paper 3

During the interview sessions, several learners recognized this concern, as reflected in their responses:

*"While writing I find difficult to get a evidence, because it also consume time, even though it gets a lot of time it made my claims strong because of the evidences I got to others that may connect to my topic."* ABM-HUMSS Participant 5

Classroom field notes further corroborate learners' difficulties in sustaining analytical depth. During brainstorming and discussion, most groups focused on practical school-related concerns but explored underlying causes and broader implications only superficially. Even during concept paper planning, learners prioritized completing structural requirements over deepening analysis and considering alternative perspectives, indicating a tendency to favor task completion over analytical rigor (*ABM & HUMSS – Grade 11 – Continuation of Discussion, February 25, 2026; ABM & HUMSS – Grade 11 – Brainstorming of Topics, February 27, 2026; ABM & HUMSS – Grade 11 – Concept Paper Planning, March 2, 2026*).

Although these statements raise valid concerns, they often lack sufficient reasoning, evidence, and deeper analysis, resulting in descriptive rather than analytical writing. This pattern is consistent with Sari et al. (2023), who found that learners can express opinions but struggle to construct systematic, evidence-based arguments. Similarly, Gepila et al. (2022) reported that ABM learners tend to emphasize lower-order thinking over analysis and evaluation. Therefore, English teachers should design writing tasks that require learners to justify claims, evaluate evidence, and critique opposing viewpoints to foster sustained analytical thinking.

**Synthesizing Evidence and Argumentation.** Difficulties in handling evidence also appear in both strands, though in slightly different ways. STEM learners often propose ideas without adequately supporting or explaining them, as seen in:

*A simple digital system will be introduced offering a attendance feature in entering the library, and this will also replace the library cards ensuring that their records are always saved from Name and Grade level to borrowed books. This system will help improve efficiency and record-keeping.*  
STEM Concept Paper 5

Learners' interview responses share this writing challenge:

*"I also have a hard time explaining the background of the problem in a clear and interesting way and connecting it to the whole concept paper."* STEM Participant 15

Classroom field notes further corroborate learners' difficulties in presenting concepts with sufficient detail and clarity. During discussions and brainstorming, learners generated feasible proposals, but these were often based on assumptions rather than analysis and evidence. During the regrouping session, drafts remained brief and lacked elaboration, indicating difficulty developing ideas into well-defined and detailed plans (*STEM EAPP – Continuation of Discussion, February 24, 2026; STEM EAPP – Brainstorming Session, February 27, 2026; STEM EAPP – Regrouping Session, March 4, 2026*).

Meanwhile, ABM–HUMSS learners attempt to include data but do not always interpret or connect it clearly to their arguments:

*Based on a survey conducted to 51 learners from Junior High School, 68.6% of learners noticed that canteen prices increased this school year. In terms of affordability, 49% of respondents believe that the food prices are expensive, while 31.4% believe that the prices are still affordable. Therefore, more than half of the surveyed learners which is 56.9% think that the prices are not reasonable for the portion size or quality of the food.* ABM-HUMSS Concept Paper 4

In the course of the interviews, a number of learners admitted encountering this difficulty, as seen in their statements:

*"While writing I find difficult to get a evidence, because it also consume time, even though it gets a lot of time it made my claims strong because of the evidences I got to others that may connect to my topic."* ABM-HUMSS Participant 5

Classroom field notes further corroborate learners' difficulties in synthesizing evidence and argumentation. During classroom and field preparation, learners gathered data through interviews and planned research procedures, but there was limited evidence that the information collected was meaningfully integrated to strengthen their proposed concepts. These observations suggest that learners struggled to connect evidence with well-developed and persuasive arguments (*ABM & HUMSS – Grade 11 – Brainstorming of Topics, February 27, 2026; Classroom and Field Preparation Activities*).

In both cases, evidence was either insufficiently explained or only loosely connected to the claim, limiting its contribution to the overall argument. Rather than strengthening analysis, supporting details often remained surface-

level. This pattern aligns with Suriyabutr et al. (2026), who found that learners rely on broad initial ideas without iterative refinement, and with Gantalao (2025), who identified an “application gap” among ABM learners in translating knowledge into data-driven contexts. Viewed through Flower and Hayes’ Cognitive Process Theory of Writing (1981), this pattern suggests difficulty transforming information into purposeful argumentative support. Therefore, English teachers should implement activities such as source annotation, claim-evidence-commentary writing, and data interpretation to help learners explicitly connect evidence to their claims.

### 3.6 *Distinct Writing Difficulties of STEM and ABM–HUMSS Classes in Concept Paper Writing*

While STEM and ABM–HUMSS students shared several difficulties in concept paper writing, the cross-case analysis also revealed strand-specific challenges. These differences reflect each group’s distinct academic orientation and approach to developing, supporting, and presenting ideas in concept papers.

***Developing Feasible and Actionable Proposals.*** STEM learners tend to approach writing from a technical and solution-focused perspective, emphasizing systems, processes, and proposed innovations. However, this often results in vague or underdeveloped explanations of how their proposals will actually work in practice. For example:

*Renovate the whole restroom. Replace old doors. Organize the comfort room layout for easier use and to be more spacious.* STEM Concept Paper 1

These proposals introduce promising ideas but lack detailed explanation of procedures, feasibility, or implementation. Several interview responses affirm this challenge:

*“Practically, I struggled with brainstorming ideas that can correspond to our main goal to accomplish it such as the real life funds for the materials and labors. Moreover, the concept paper itself is a challenge because of a lots of factors to be considered.”* STEM Participant 12

These patterns highlight how STEM learners’ technically oriented writing, while idea-driven, often lacks sufficient elaboration on feasibility and implementation. Similar findings were reported by Damondamon and Aliazas (2025), who noted STEM learners’ limited cognitive flexibility; Delaney (2023), who observed an emphasis on technical details over rhetorical development; Singh (2024), who identified underdeveloped scientific claims; and Mort et al. (2012), who found that learners prioritize procedures over evaluating the feasibility of proposed solutions. Together, these studies reinforce learners’ difficulty explaining how and why proposed solutions are viable. This pattern suggests that learners operate mainly at the knowledge-telling level rather than engaging in knowledge transformation. Therefore, English teachers should incorporate authentic writing tasks, such as proposal writing and community-based problem-solving projects, that require learners to justify the feasibility and implementation of their recommendations.

***Moving Beyond Generalized and Value-Based Reasoning.*** On the other hand, ABM–HUMSS learners ground their writing more strongly in lived experiences and observable school realities. This is evident in statements such as:

*Based on a survey conducted to 51 learners from Junior High School, 68.6% of learners noticed that canteen prices increased this school year. In terms of affordability, 49% of respondents believe that the food prices are expensive, while 31.4% believe that the prices are still affordable. Therefore, more than half of the surveyed learners which is 56.9% think that the prices are not reasonable for the portion size or quality of the food.* ABM-HUMSS Concept Paper 4

While this experiential approach makes their writing relatable and context-driven, it also tends to result in generalized claims and value-based reasoning that are not always supported by systematic analysis. Interview responses reflect this observation:

*“I encounter challenges when I am thinking of a problem at school because of lot of problem here*

*in our school, I don't know what I will pick to create an solution. Other problem that I encounter is in doing the cost and item that we will use because it is hard to identify the item that we must use in doing the item that we will use because it is my part on our concept paper."*

ABM-HUMSS Participant 16

These patterns suggest that while ABM–HUMSS learners produce contextually grounded and experience-based writing, their arguments are often constrained by limited synthesis and critical analysis of evidence. Similar findings were reported by Gepila et al. (2022), who found that learners perform better in recall than in higher-order thinking, and by Lauron and Ado (2026), who observed that learners often prioritize personal insights over critical examination of evidence. Together, these studies reinforce the tendency toward experiential writing with limited analytical depth. Viewed through Flower and Hayes' (1981) Cognitive Process Theory of Writing, this pattern suggests that learners rely heavily on personally accessible knowledge while engaging less in evaluating and synthesizing evidence. Therefore, English teachers should design writing tasks that require learners to compare perspectives, evaluate evidence, and synthesize information from multiple sources before drawing conclusions.

These contrasting tendencies reveal two distinct writing approaches. STEM learners produced more technical and proposal-oriented writing but struggled to elaborate and clarify ideas, whereas ABM–HUMSS learners demonstrated more experiential and context-based writing but faced challenges in maintaining academic precision and analytical argumentation. These findings suggest that English teachers should adopt strand-responsive writing activities. STEM learners should practice explaining technical concepts through feasibility analyses and real-world applications, while ABM–HUMSS learners should strengthen academic language, evidence synthesis, and analytical writing. Across both strands, transmedia-based writing activities can support planning, drafting, revising, and refining concept papers to improve coherence, analytical depth, and evidence-based writing.

The findings of this study highlight persistent challenges in academic writing that have important implications for educational practice. For teachers and practitioners, the identified difficulties provide a basis for designing targeted and differentiated writing instruction that addresses learners' specific needs, particularly in academic language, argumentation, organization, evidence integration, and critical evaluation. For students, the findings emphasize the importance of strengthening higher-order writing skills required for academic success, enabling them to communicate ideas more coherently, objectively, and effectively across disciplines. The strand-specific differences further suggest that instructional approaches should be responsive to learners' disciplinary contexts, with STEM students requiring greater support in articulating analytical and evidence-based technical arguments, and ABM-HUMSS students benefiting from strategies that foster academic objectivity and sustained reasoning. For schools and curriculum planners, the findings provide empirical evidence to support curriculum enhancement, the integration of meaningful educational technologies into writing instruction, targeted intervention programs, teacher professional development, and the development of contextualized instructional resources that strengthen academic writing competencies among senior high school learners.

### *3.7 Transmedia-Based Intervention Strategies and Contextualized Transmedia Strategy Primer*

The Transmedia-Based Primer was developed as a contextualized, learner-centered instructional guide for teaching academic writing through transmedia and multimodal learning experiences aligned with curriculum competencies. It provides teachers with structured lesson guides that integrate diagnostic writing assessments, Writing Difficulties Checklists, remediation activities, collaborative and experiential learning tasks, formative assessments, and performance-based outputs. Designed to support differentiated and responsive instruction, the primer enables teachers to identify learners' writing difficulties and implement appropriate Transmedia-Based Intervention Strategies targeting language use, organization and coherence, analytical thinking, evidence integration, argumentation, and technical explanation through technology-enhanced learning (Lim & Kessler, 2023). By combining structured instruction with targeted interventions, the primer aims to strengthen learners' academic writing competencies, critical thinking, academic communication, digital literacy, and higher-order thinking skills.

The Transmedia Integration Model operationalizes the primer through a cyclical process of assessment, intervention, instruction, and evaluation. It begins with a diagnostic writing task and a Writing Difficulties Checklist to identify learners' needs, enabling teachers to select appropriate Transmedia-Based Intervention Strategies integrated into the Transmedia SAMR Primer. Learners then engage in multimodal writing tasks that progressively advance through the SAMR levels while teachers provide continuous feedback and adjust instruction based on learner progress. This iterative process strengthens writing competence, analytical thinking, evidence-based reasoning, and academic communication by addressing persistent difficulties in grammar, organization, and analytical writing (Lasaten & Pablo, 2018; Roxas, 2020; Samosa, 2021; Divina, 2025).

**Practical Educational Implications.** The findings of this study provide practical implications for improving academic writing instruction in senior high school by offering teachers a systematic approach to identifying and addressing learners' writing difficulties through the developed Transmedia Strategy Intervention and Contextualized Transmedia Primer. The intervention equips teachers with targeted, multimodal learning activities that address specific writing challenges, while the primer serves as a ready-to-use instructional guide integrating diagnostic assessment, writing difficulty identification, differentiated remediation, formative assessment, and performance-based tasks aligned with the academic writing curriculum and the SAMR framework. For students, these resources create engaging and authentic learning experiences that foster critical thinking, collaboration, self-reflection, and the development of academic writing competencies through multiple modes of communication. For schools, the intervention and primer may be adopted or adapted as contextualized instructional materials to strengthen writing instruction, support teacher professional development, and promote meaningful technology integration, thereby providing an evidence-based model for responsive, learner-centered academic writing instruction.

#### 4. Conclusions

The findings of this study indicate that Grade 11 learners continue to experience persistent challenges in academic writing, particularly in sustaining analytical thinking, organizing ideas coherently, and maintaining appropriate academic language and tone across various academic writing tasks. Although STEM and ABM–HUMSS learners exhibited similar writing difficulties, the nature of these challenges differed between the two strands. STEM learners primarily encountered cognitive and linguistic difficulties related to developing analytical arguments and expressing ideas using formal academic discourse. In contrast, ABM–HUMSS learners experienced more multidimensional challenges, including affective factors such as emotional involvement and difficulty maintaining academic objectivity. These findings suggest that academic writing instruction should extend beyond conventional approaches by addressing the distinct needs of learners from different academic strands. Consequently, the study underscores the importance of adopting innovative and technology-enhanced instructional strategies that strengthen learners' analytical reasoning, organizational skills, and academic language proficiency while responding to the learning demands of the twenty-first century.

**Recommendations.** Based on the findings of this study, academic writing instruction should adopt explicit and scaffolded approaches that strengthen learners' analytical writing, organization, and academic language through guided modeling, structured writing activities, and timely feedback. Given the distinct writing profiles of the two academic strands, differentiated instructional strategies are likewise recommended. STEM learners may benefit from interventions that enhance the articulation of analytical reasoning and academic discourse, whereas ABM–HUMSS learners require greater support in developing academic objectivity, evidence-based reasoning, and effective management of affective influences in writing. Furthermore, the proposed Transmedia-SAMR Strategy Intervention and the Contextualized Transmedia Strategy Primer are recommended for pilot implementation in classroom settings to evaluate their effectiveness in improving learners' academic writing performance. Future studies may further validate and refine these instructional materials across different educational contexts and learner populations to strengthen their applicability and instructional value.

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proofreading, literature organization, source synthesis, and document analysis. AI-generated outputs were reviewed and verified by cross-checking them against the original sources, interview transcripts, and the researcher's analyses to ensure factual accuracy and consistency. All interpretations, findings, and conclusions were developed independently by the researcher, who assumed full responsibility for the study while adhering to the principles of informed consent, confidentiality, voluntary participation, beneficence, non-maleficence, and research integrity.

**Availability of Materials.** The Transmedia-Based Intervention Strategies and the Transmedia-Based Primer developed in this study are available from the corresponding author upon reasonable request via email.

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