International Journal of Research Studies in Management
2025 Volume 13 Number 8, 61-73

Resource allocation and literacy outcomes in the Alternative Learning System (ALS) in Magsaysay, Occidental Mindoro

Ramos, Mary Jane S.
Divine Word College of San Jose, Philippines (maryjaneramos605@gmail.com)
Galay-Limos, Jenny A.
Divine Word College of San Jose, Philippines (jennygalay05@gmail.com)

ISSN: 2243-7770
Online ISSN: 2243-7789

OPEN ACCESS

Received: 2 November 2025 **Revised**: 7 December 2025 **Accepted**: 10 December 2025
Available Online: 12 December 2025 **DOI**: 10.5861/ijrsm.2025.25521

Abstract

This study examined the relationship between resource allocation and literacy outcomes in the Alternative Learning System (ALS) in Magsaysay, Occidental Mindoro. Guided by the Practice-Engagement Theory, the research focused on four main areas: teaching materials, technology, teaching time, and teaching strategy. Using an exploratory-sequential design, data were collected from 256 ALS learners and 7 ALS teachers using a validated researcher-made instrument. Findings reveal that ALS learners did not mention teaching strategies as their main resources, suggesting a gap between instructional practices and learners' perceptions. Yet it is still included in the study, along with materials, technology, and time, due to its instructional value. Moreover, learners perceived a very high level of support in terms of materials, technology, and teaching strategies, though teaching time was seen as slightly more limited. Teachers rated both reading and writing proficiency among learners as very high. Statistical analysis revealed a positive link between teaching strategies and reading proficiency, showing that interactive and learner-centered approaches effectively improve comprehension. Similarly, materials and technology positively influence writing skills by providing learners with structured resources and digital tools that enhance writing practice and creativity. However, the negative association of teaching time with both reading and writing suggests that simply increasing instructional time does not guarantee better outcomes; instead, the focus may be on the quality and effectiveness of teaching methods and materials. Based on these findings, the study recommends targeted interventions to strengthen resource allocation to better support ALS learners in developing their reading and writing proficiency.

Keywords: Alternative Learning System (ALS), literacy outcomes, practice-engagement theory, resource allocation, teaching strategy

Resource allocation and literacy outcomes in the Alternative Learning System (ALS) in Magsaysay, Occidental Mindoro

1. Introduction

Education is a vital foundation for individual empowerment and national development. In the Philippines, the Alternative Learning System (ALS) plays a crucial role in providing educational opportunities to out-of-school youth and adults who have been unable to access formal education due to economic, social, or personal barriers. ALS is designed to equip learners with literacy, numeracy, and life skills necessary for individual and societal growth. Despite its valuable purpose, the ALS program faces persistent challenges. According to UNESCO (2019), many ALS programs suffer from inadequate resources, limited access to technology, and insufficient training for facilitators. These limitations significantly affect the quality of instruction and overall learning outcomes. Moreover, Baccal and Ormilla (2021) further emphasize that the lack of instructional materials, suitable facilities, and qualified teachers undermines the effectiveness of ALS, particularly for learners with low literacy levels. These learners often require targeted, resource-intensive interventions to achieve meaningful educational progress. Research by Magatines and Flores (2024) and Perater and Paglinawan (2025) highlights common issues, including limited access to learning materials and inadequate learning environments. However, while these studies discuss the general challenges in ALS implementation, there remains a gap in the literature regarding how strategic resource allocation could directly improve literacy outcomes. As Duncombe (2017) notes, resource constraints can disproportionately affect those who need the most support, making efficient resource management crucial for success. In response to this gap, the study aims to explore how strategic resource allocation can enhance literacy among ALS learners. It seeks to identify effective resource management practices that correlate with improved educational outcomes. This research is not only practical but also aligned with the Philippine government's efforts to promote inclusive and equitable quality education, as envisioned in Sustainable Development Goal 4 (United Nations, 2015).

Statement of the Problem - This study aimed to examine the relationship between Alternative Learning System (ALS) learners' perceived resource allocation and their literacy outcomes assessed by ALS teachers. Specifically, it sought to answer the following questions: (1) What resources are most important for the students in the Alternative Learning System (ALS)? (2) What is the extent of resource allocation as assessed by ALS learners in terms of teaching materials, technology, teaching time, and teaching strategy? (3) What is the level of literacy outcomes of ALS learners as assessed by the teachers in terms of reading proficiency and writing proficiency? (4) Is there a significant relationship between the resource allocation and literacy outcomes of ALS learners? (5) What interventions can be proposed to enhance the literacy outcomes of ALS learners?

Significance of the Study - The findings of this study hold valuable implications for a range of stakeholders involved in the Alternative Learning System (ALS). By shedding light on the relationship between resource allocation and literacy outcomes, the study aims to provide actionable insights that can enhance educational practices, resource management, and learner support. The potential benefits extend beyond the immediate learning community, influencing educators, families, policymakers, and future research in meaningful ways. This study offers significant benefits to various groups connected to the ALS program. For ALS learners, identifying key factors in literacy development can lead to improved support systems, ensuring access to the resources that boost reading and writing skills. Parents, gain a clearer understanding of what truly supports their children's learning, enabling them to provide more effective guidance and involvement at home. ALS educators and facilitators can use the study's insights to refine their teaching strategies and make better use of instructional materials, technology, and time to enhance literacy outcomes. Community organizations and support groups, including NGOs engaged in ALS initiatives, may apply the findings to design targeted programs that address resource gaps and expand learning opportunities. The Department of Education (DepEd) benefits from practical recommendations to

improve ALS implementation, helping identify priority areas for resource allocation and support. Education administrators and policymakers can utilize data-driven evidence to inform policies that ensure a more efficient distribution of resources, ultimately strengthening ALS programs and raising literacy rates. Lastly, future researchers will find this study valuable as a foundation for further exploration into literacy development and resource management within alternative education settings.

Scope and Delimitation of the Study - This study investigated the relationship between ALS learners' perceived resource allocation and their literacy outcomes, emphasizing key resources such as teaching materials, technology, teaching time, and teaching strategies. Although teaching strategies were not explicitly mentioned during interviews, they were included in the analysis based on theoretical frameworks such as Practice Engagement Theory (PET), which emphasizes the role of instructional methods in enhancing learner engagement and literacy development. The research was conducted over seven months, from January to July 2025. Due to the absence of standardized rubrics from the Department of Education (DepEd) tailored explicitly for the ALS program, the study faced limitations in measuring reading and writing proficiency. As a result, it relied on the professional evaluations of ALS teachers working in Community Learning Centers (CLCs), who assessed learners' literacy skills using a researcher-designed rating tool aligned with ALS instructional standards. While this tool was not formally standardized, it provided a structured approach to capture teachers' expert judgments based on their direct experience with learners. The study was confined to ALS learners enrolled in a selected locality and did not include participants from other alternative learning systems or formal education settings. Additionally, because the research used a descriptive-correlational design, it focused on the strength and direction of the relationship between resource allocation and literacy outcomes, without claiming a direct causal effect.

2. Methodology

Research Design - This study used a sequential, exploratory, mixed-methods approach, combining qualitative (narrative) and quantitative (descriptive-correlational) methods, to investigate the relationship between the extent of resource allocation perceived by ALS learners and literacy outcomes as assessed by ALS teachers. In the first phase, qualitative data were collected through interviews with selected ALS learners. These interviews were analyzed to identify key themes and insights related to resource allocation, capturing participants' personal perspectives in depth. The findings from this phase informed the development of a structured questionnaire for the quantitative phase. In the second phase, the survey was distributed to all ALS learners, excluding the 15 respondents from the qualitative phase, enabling statistical analysis to quantify the relationship between resource allocation and literacy outcomes.

Respondents of the Study - For the qualitative phase, fifteen (15) ALS learners from Sitio Tilaga and Sitio Bayabas, Caguray Community Learning Center, were selected. These participants were not included in the final administration of the questionnaire to avoid duplication of responses. For the quantitative phase, the study's respondents consisted of two groups: first, all learners enrolled in the ALS program in Magsaysay for A.Y. 2024–2025. The total population of these learners was 256. Since complete enumeration was used, no sampling distribution was computed. The ALS learners were chosen as respondents because they directly benefited from the program's resources, providing valuable insight into the availability and effectiveness of the program's materials, facilities, and instructional support in improving literacy. Their experiences were essential in evaluating how well resource allocation met their learning needs. Second, seven (7) ALS teachers participated by assessing learners' reading and writing proficiency using a researcher-developed tool aligned with the ALS program. Although not standardized, this tool enabled teachers to provide professional evaluations based on classroom performance and observed competencies, serving as the basis for measuring literacy outcomes in the study.

Research Instrument - The study used both qualitative and quantitative methods in two phases to understand ALS learners' experiences and academic outcomes. First, interviews with learners explored their use of learning resources. Insights from these interviews informed the second phase, which involved structured surveys for both learners and teachers. Learners rated their access to teaching materials, technology, instructional time, and teaching

strategies using a five-point Likert scale. Teachers assessed learners' reading and writing proficiency based on professional observation, also using a five-point scale. This dual-survey approach provided a comprehensive view of resource access and literacy outcomes from both learner and teacher perspectives. Expert validation was used, with three professors from the graduate school program at Divine Word College of San Jose reviewing the questionnaire to ensure it accurately captured the intended concepts. Based on their feedback, the questionnaire was revised and approved by the advisor. It was then tested for reliability to check its consistency over time. The researcher piloted the questionnaire with 30 students and 10 teachers. A week later, it was administered to the same group of respondents who were excluded from the final administration of the questionnaire. Using the test-retest method, the researcher assessed the consistency of 52 items—covering resource allocation and literacy outcomes—through Cronbach's Alpha. The results are presented herein:

Table 1

Reliability Analysis Results

COMPONENTS	RELIABILITY INDEX*	Number of Items	INTERPRETATION
Resource Allocation			
Teaching Materials	0.700	8	High Reliability
Technology	0.751	8	High Reliability
Teaching Time	0.700	8	High Reliability
Teaching Strategy	0.906	8	Very High Reliability
Literacy Outcomes			
Reading Proficiency	0.893	10	High Reliability
Writing Proficiency	0.874	10	High Reliability

*Based on standardized items

The instrument showed high reliability, with Cronbach's Alpha scores ranging from 0.700 to 0.906. These results confirmed its acceptability, making it suitable for use with the final group of respondents.

Data Gathering Procedure - Before data collection, the researcher secured all necessary permits and approvals to ensure ethical compliance. In the qualitative phase, five days of semi-structured interviews were conducted with ALS students in Magsaysay, allowing for thoughtful, anonymous responses and in-depth insights. The quantitative phase involved a structured survey, administered over twenty-five days, face-to-face, providing consistent data for analysis and focusing on learners in the Alternative Learning System for effective and practical implementation.

Statistical Treatment of Data - Data were collected, classified, tabulated, and coded for analysis using statistical software. Thematic analysis was used to identify and categorize qualitative issues related to unforgettable experiences in school and reactions to the mentioned situations. In the quantitative part, the proponent used the weighted mean to assess the perceived extent of resource allocation among ALS learners and the literacy outcomes as evaluated by ALS teachers. To determine the relationship between the independent and dependent variables, calculations were performed using WarpPLS 7.0, a software package for partial least squares (PLS) structural equation modeling.

Ethical Considerations - The study followed key ethical principles—such as informed consent, confidentiality, and voluntary participation—in line with American Psychological Association (APA) guidelines. Participants were provided with detailed information about the study and were required to submit a formal consent letter. They also had the option to sign a Participation and Withdrawal Letter, allowing them to leave the study at any time without penalty. Interviews maintained anonymity and used open-ended questions to encourage honest responses. Ethical instructions were clearly communicated, and any participant concerns were addressed promptly.

3. Results and Discussions

The researcher conducted a thematic analysis of interviews with 15 ALS learners from Sitio Tilaga and Sitio Bayabas at the Caguray Community Learning Center to identify which resources most supported their learning.

Three key resources consistently emerged: teaching materials, access to technology, and sufficient teaching time.

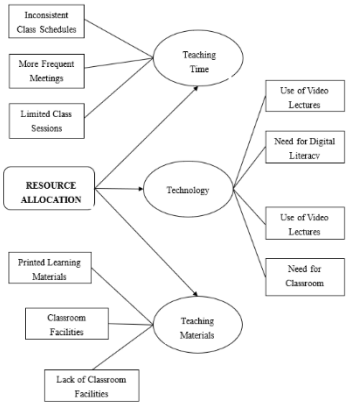

Figure 1. Initial Thematic Map for Resource Allocation

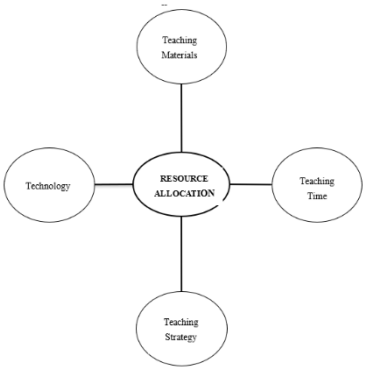

Figure 2. Final Thematic Map for Resource Allocation

Among these, teaching materials, technology, and teaching time were the most frequently mentioned. Learners consistently shared how the presence—or absence—of these resources influenced their participation in reading and writing tasks. Although learners did not explicitly say it, the teaching strategy was also included because of its influential role in how these resources were used. The teaching strategy was defined as the instructional methods teachers used to engage students in literacy tasks, such as reading and writing. Its inclusion was supported by Practice Engagement Theory (Reder et al., 2020), which emphasizes that literacy develops through meaningful participation, rather than just access to resources. Recent research (Zeitschrift für Weiterbildungsforschung, 2024) further supports this view, showing that adult learners improve more when engaged in structured, relevant literacy activities.

Table 2 presents ALS learners' assessments of resource allocation across four core components of the Alternative Learning System: teaching strategy, access to technology, teaching materials, and teaching time. The overall composite mean of 4.27, interpreted as "Very High Extent," indicates that learners perceive a strong level of support across these instructional resources. Among the four components, teaching strategy received the highest composite mean of 4.59, reflecting consistent use of effective literacy-based methods such as repeated reading, vocabulary instruction, guided writing, and group-based activities. This aligns with the work of Hidayati et al. (2021) and Rupley et al. (2020), who emphasized the value of fluency-building and interactive strategies in enhancing reading proficiency. It also echoes the findings of Megawati (2020) and Shen et al. (2024), who highlighted the importance of structured writing instruction and metacognitive strategies in developing learners' writing abilities.

Table 2

Mean Extent of Resource Allocation in Terms of Teaching Materials, Technology, Teaching Time, and Teaching Strategy

Indicators (Teaching Materials)	Weighted Mean	Interpretation
1. Our teacher provides a variety of learning materials to help me understand our lesson.	4.65	Very High Extent
2. Our teacher uses updated modules.	4.46	Very High Extent
3. Our teacher uses digital learning materials (e.g., e-books, online modules).	4.27	Very High Extent
4. Our teacher's learning materials meet my educational needs.	4.28	Very High Extent
5. Our teacher gives us printed homework.	4.65	Very High Extent
6. Our teacher uses physical objects to help us understand the topic.	4.34	Very High Extent
7. Our teacher uses traditional teaching materials every learning session (e.g., blackboard and chalk, visual aids).	4.61	Very High Extent
8. Our teacher provides demonstration activities for our livelihood training.	4.58	Very High Extent
Composite Mean	4.48	Very High Extent

Indicators (Technology)		
1. Our teacher uses modern learning tools (e.g., laptops, computers, tablets) for our learning in ALS.	4.71	Very High Extent
2. Our teacher uses digital resources (e.g., online lessons, apps) to support our lesson.	4.28	Very High Extent
3. Our teacher uses subsidized technological tools for our lesson.	4.33	Very High Extent
4. Our teacher guides us on how to use learning applications.	4.54	Very High Extent
5. Our teacher uses group chat in posting our topic/activities.	4.69	Very High Extent
6. Our teacher uses record videos to help us understand more our lesson.	4.62	Very High Extent
7. Our teacher allows us to use artificial intelligence to answer our assignment.	4.37	Very High Extent
8. Our teacher uses slide show presentation.	4.38	Very High Extent
Composite Mean	4.49	Very High Extent
Indicators (Teaching Time)		
1. Our teacher gives flexible schedule that allows me to learn at a good pace.	1.87	Low Extent
2. Our teacher gives me enough one-on-one support when I need help.	2.00	Low Extent
3. Our teacher gives enough learning hours to improve my skills.	2.02	Low Extent
4. Our teacher provides extra sessions when I struggle with our lessons.	4.28	Very High Extent
5. Our teacher gives us time to do a group work/activity.	4.41	Very High Extent
6. Our teacher's teaching time affects how well I learn.	4.64	Very High Extent
7. Our teacher gives us time to do a collaborative study.	4.49	Very High Extent
8. Our teacher gives us time to have real life job experience with the help of the cooperating agencies.	4.35	Very High Extent
Composite Mean	3.51	High Extent
Indicators (Teaching Strategy)		
1. Our teacher asks us to read passages many times to help us become fluent readers.	4.64	Very High Extent
2. Our teacher taught us new words and their meanings to improve our vocabulary.	4.54	Very High Extent
3. Our teacher asks us to write paragraphs to improve our writing skills.	4.75	Very High Extent
4. Our teacher uses read-aloud sessions to help us improve our reading skills.	4.58	Very High Extent
5. Our teacher gives us phonological awareness activities, like identifying beginning sounds and rhyming words.	4.29	Very High Extent
6. Our teacher gives us group activities to help each other in writing and reading tasks.	4.69	Very High Extent
7. Our teacher talks to us about our writing performance and advise us on how we can do it better.	4.54	Very High Extent
8. Our teacher lectures us about the importance of writing and reading.	4.66	Very High Extent
Composite Mean	4.59	Very High Extent
Overall Mean	4.27	Very High Extent

Scale: 4.20-5.00 – Very High Extent; 3.40-4.19 – High Extent; 2.60-3.39 – Moderate Extent; 1.80-2.59 – Low Extent; 1.00-1.79 – Very Low Extent

Access to technology was also rated highly, with a mean of 4.49, suggesting that learners benefit from tools such as recorded video lessons, educational apps, AI-powered platforms, and online resources. These findings support the conclusions of Adeleye et al. (2024) and Eden et al. (2024), who emphasize the importance of equitable digital access for inclusive education. Similarly, Pangrazio et al. (2020) and Alakrash and Razak (2021) underscore the importance of digital competence as a key component of learner engagement and future-readiness. In addition, the availability of teaching materials received a composite mean of 4.48, indicating that learners have reliable access to a variety of instructional resources in print, digital, and traditional formats. This finding aligns with Wema (2022), who emphasized that resource availability is essential to literacy development, and is further supported by Tzovla and Kedraka (2020) and McKnight et al. (2021), who argue that multimodal materials enhance comprehension and learner motivation.

In contrast, teaching time received the lowest composite mean of 3.51, categorized as High Extent, suggesting that while learners appreciate structured classroom activities and group work, there are notable concerns regarding flexibility and individualized support. These results align with the observations of Heitmann et al. (2023) and Loopoo and Balfour (2021), who argue that time allocation—particularly when tailored to individual learner needs—plays a critical role in educational success. Reder et al. (2020) also emphasized that meaningful engagement in literacy tasks depends heavily on how instructional time is organized, especially for learners with varied learning speeds and needs. Overall, while ALS learners perceive a high level of resource support, the findings highlight the need to address gaps in teaching time flexibility and personalized instruction to ensure equitable literacy outcomes.

Table 3

Mean Level of Literacy Outcomes In Terms of Reading Proficiency and Writing Proficiency

Indicators (Reading Proficiency)	Weighted Mean	Interpretation
1. My ALS learners can read simple texts.	4.14	High Extent
2. My ALS learners can understand and explain the meaning of a passage.	4.00	High Extent
3. My ALS learners can identify the main idea and supporting details in a text.	4.57	Very High Extent
4. My ALS learners can summarize a short story or article accurately.	4.71	Very High Extent
5. My ALS learners can infer meaning from context when reading.	4.00	High Extent
6. My ALS learners can recognize and use new vocabulary in sentences.	4.57	Very High Extent
7. My ALS learners demonstrate improvement in reading comprehension over time.	4.86	Very High Extent
8. My ALS learners can read and follow written instructions effectively.	4.00	High Extent
9. My ALS learners show confidence when reading aloud.	2.86	Moderate Extent
10. My ALS learners can make inferences and conclude from the passage they have read.	4.71	Very High Extent
Composite Mean	4.24	Very High Extent
Indicators (Writing Proficiency)		
1. My ALS learners can write complete sentences.	4.57	Very High Extent
2. My ALS learners can express their thoughts clearly in writing.	3.86	High Extent
3. My ALS learners can compose short paragraphs with proper structure.	4.29	Very High Extent
4. My ALS learners can use correct spelling and punctuation.	2.57	Low Extent
5. My ALS learners can write a summary of a given text.	4.57	Very High Extent
6. My ALS learners can organize their ideas logically when writing.	3.43	High Extent
7. My ALS learners show improvement in written communication over time.	5.00	Very High Extent
8. My ALS learners can write short essays with minimal grammatical errors.	5.00	Very High Extent
9. My ALS learners demonstrate creativity in writing tasks.	4.43	Very High Extent
10. My ALS learners can use transitions and maintain a clear writing style.	5.00	Very High Extent
Composite Mean	4.27	Very High Extent
Overall Mean	4.26	Very High Extent

Scale: 4.20-5.00 – Very High Extent; 3.40-4.19 – High Extent; 2.60-3.39 – Moderate Extent; 1.80-2.59 – Low Extent; 1.00-1.79 – Very Low Extent

Table 3 presents the assessment of ALS learners' literacy proficiency, with a composite mean of 4.24 froficiency and 4.27 proficiency, both interpreted as "Very High Extent." These results suggest that learners are generally competent and show continuous improvement in both literacy areas. The slightly higher score in writing reflects learners' ability to construct complete sentences, compose summaries, and write structured essays—despite some challenges in spelling and grammar. Teachers attribute this progress to instructional guidance and feedback, echoing the findings of Trapman et al. (2018) and Limbong and Tandibura (2023), who emphasized the importance of effective writing instruction and teacher support. In reading, learners demonstrated strong skills in identifying key ideas, making inferences, and summarizing texts; however, the lower score in reading aloud indicates limited oral fluency and confidence. This aligns with Li and Chen and Lee's (2024) distinction between silent reading comprehension and oral reading proficiency, highlighting fluency as an area needing reinforcement. The overall composite mean of 4.26, also interpreted as "Very High Extent," confirms that the ALS program is successfully developing foundational literacy skills. These findings affirm the impact of structured instruction, collaborative learning, and consistent teacher engagement in supporting learners—particularly those from non-traditional or interrupted educational backgrounds—as they progress in their reading and writing competencies.

Moreover, the composite mean of 4.24, interpreted as Very High Extent under reading proficiency, indicates that, overall, ALS learners demonstrate strong reading skills across a variety of domains. These findings align with Misuari-Abdurasul (2023), who emphasized that reading proficiency involves comprehension, interpretation, and meaningful engagement with texts. The strong ratings also echo the work of Fitton et al. (2018), who highlighted that proficient readers can construct meaning, recognize text structures, and link ideas across a passage. Similarly, the high marks for inferencing and conclusion-drawing are consistent with the views of Bernardo and Mante-Estacio (2023), who associated these skills with higher-order thinking and critical literacy. Learners' demonstrated ability to follow written instructions and use vocabulary contextually further supports Baki's (2024) and Yusri and Soh's (2019) assertion that reading proficiency includes flexible strategies such as scanning, skimming, and close reading, depending on the reading task. In addition, the writing proficiency, showing a composite mean of 4.27, is

interpreted as Very High Extent, indicating that learners generally exhibit strong writing skills, including clarity, structure, and creativity. The highest ratings, all at 5.00, were given to learners' ability to write short essays with minimal grammatical errors, maintain a clear writing style using transitions, and demonstrate overall improvement in written communication, highlighting the significant impact of ALS instruction. These findings are supported by Trapman et al. (2018), who emphasize the foundational role of vocabulary and grammar in writing proficiency. Qin et al. (2024) also highlight the importance of coherence and adaptability, which align with the learners' strong performance in essay and summary writing. However, the relatively lower score in logical organization suggests a need for enhanced planning strategies. Moreover, studies by Aziz et al. (2021) and Halili and Diva (2023) underline the connection between reading and writing, noting that exposure to well-structured texts supports the development of written expression. The role of teacher feedback, as discussed by Limbong et al. (2023) and Zhang (2023), is evident in learners' improvement and clarity. Finally, the observed creativity and progress may also be attributed to collaborative writing practices, as proposed by Chua and Bhar (2022) and Chen and Lee (2022), which foster peer learning through group editing, discussion, and feedback.

Table 4

Path Coefficients and p-values for Hypothesis Testing

Path	Beta-Coefficients (β)	*p*-values**	Interpretation**
TCHMAT→READPROF	0.095	0.082	Not Significant
TECH→READPROF	0.084	0.109	Not Significant
TIME→READPROF	0.069	0.154	Not Significant
STRAT→READPROF	0.199	0.001	Significant
TCHMAT→WRITPROF	0.194	0.002	Significant
TECH→WRITPROF	-0.167	0.007	Significant
TIME→WRITPROF	0.050	0.234	Not Significant
STRAT→WRITPROF	0.064	0.172	Not Significant

**Significant at p< 0.05

The results of the hypothesis testing reveal several significant paths within the structural model. Specifically, availability of teaching materials positively predicts writing proficiency ($\beta = 0.194$, $p = 0.002$), suggesting that learners benefit from access to relevant instructional resources—a finding supported by Wema (2022) and McKnight et al. (2021), who emphasize the value of materials in developing vocabulary, structure, and content for writing. In contrast, access to technology shows a significant negative relationship with writing proficiency ($\beta = -0.167$, $p = 0.007$), indicating that without proper integration and digital literacy support, technology use may hinder rather than enhance writing development. This aligns with Alakrash and Razak (2021), who caution against unstructured or passive use of digital tools. For reading proficiency, teaching strategy emerged as the only significant predictor ($\beta = 0.199$, $p = 0.001$), highlighting the crucial role of instructional methods such as scaffolding, repeated reading, and collaborative learning, as noted by Hidayati et al. (2021) and Rupley et al. (2020). Other paths—teaching materials to reading proficiency ($\beta = 0.095$, $p = 0.082$), access to technology ($\beta = 0.084$, $p = 0.109$), and teaching time ($\beta = 0.069$, $p = 0.154$)—were not significant for reading outcomes. Likewise, teaching time ($\beta = 0.050$, $p = 0.234$) and teaching strategy ($\beta = 0.064$, $p = 0.172$) were not significant predictors of writing proficiency. These findings partially reject the null hypothesis, confirming that certain aspects of resource allocation—particularly teaching strategy and access to materials—have a direct impact on literacy outcomes in the ALS context. However, the lack of significance for teaching time supports Loopoo and Balfour's (2021) argument that quality and strategic use of time outweigh duration alone. Additionally, the absence of a link between teaching strategy and writing proficiency may indicate a need for distinct pedagogical approaches to writing, such as personalized feedback and extended practice, as emphasized by Shen et al. (2024) and Megawati (2020).

An emerging model, as presented in Figure 4, finalized the direct links among the latent variables used in the study, which emerged from the structural equation analysis. Among the four components of resource allocation, only the availability of teaching materials and access to technology appear to influence ALS learners' writing proficiency directly. Among the other components, the teaching strategy is singled out as having a direct influence on ALS learners' reading proficiency. Beta coefficients from 0.019 to 0.023, although low, are found to be significantly supported by *p*-values less than 0.01. A minimal percentage of variability, R^2=0.08 or 8% in the

writing proficiency and 5% in the reading proficiency, can be attributed to the variability in the teaching materials, access to technology, and teaching strategy.

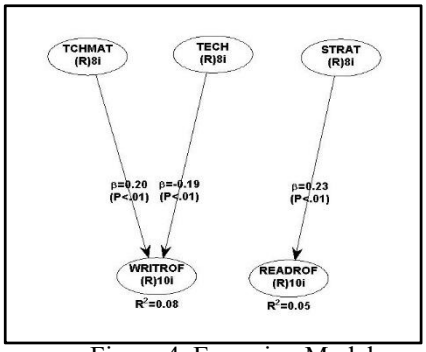

Figure 4. Emerging Model

Table 5

Standardized Estimates of the Path in the Emerging Model

Hypothesis	Standardized Estimates (β)	Standard Error	*p*-value	Effect Size**
STRAT→READPROF	0.225	0.066	<0.001	0.051
TCHMAT→WRITPROF	0.202	0.066	0.001	0.041
TECH→WRITPROF	-0.186	0.066	0.003	0.035

Effect size coefficient **0.02 – small, 0.15 – medium, 0.30 – large**

Table 5 presents the results of a statistical test supporting the rejection of the null hypotheses for three specific paths, with p-values of <0.001, 0.001, and 0.003, confirming the presence of significant relationships. The standardized estimates showed slight improvements, with β = 0.225, β = 0.202, and β = –0.186, respectively. These results reveal that while access to technology has a significant but negative effect on writing proficiency (effect size = 0.035), both the availability of teaching materials and teaching strategy have positive effects on writing and reading proficiencies, respectively, with effect sizes of 0.041 and 0.051. A standard error of 0.066 indicates acceptable sampling accuracy. The strongest predictor in the model is the teaching strategy's impact on reading proficiency (β = 0.225), highlighting the value of interactive and structured teaching methods. This finding aligns with Hidayati et al. (2021) and Rupley et al. (2020), who emphasized that guided reading, repeated practice, and engagement strategies significantly boost reading fluency and comprehension—particularly relevant in the ALS context, where many learners are developing foundational skills.

Meanwhile, the significant effect of teaching materials on writing proficiency (β = 0.202) reinforces the work of Wema (2022) and McKnight et al. (2021), suggesting that access to structured and relevant learning resources directly supports written output, especially for ALS learners who may lack home access to such materials. Conversely, the negative association between access to technology and writing proficiency (β = –0.186) suggests that unstructured or passive use of digital tools may hinder skill development. Alakrash and Razak (2021) and Chen and Lee (2022) caution that technology must be embedded within clear instructional strategies that actively engage learners in writing tasks. Without guided application, learners may default to passive consumption or over-reliance on automated tools, limiting authentic writing practice. These results underscore the need for intentional integration of digital resources, ensuring that technology enhances rather than replaces the writing process in ALS learning environments. The study's findings indicate that while ALS learners show promising levels of literacy proficiency, targeted interventions are necessary to address specific gaps. A key issue is the need for contextualized and leveled teaching materials to support writing development, addressing learners' struggles with generic or insufficient resources. The proposed creation of modules with grammar tips, sample essays, and scaffolded tasks is supported by Wema (2022) and McKnight et al. (2021), who highlight the importance of relevant instructional content. Additionally, the negative impact of unstructured technology use on writing proficiency underscores the need for guided digital activities, such as supervised blogging and structured journaling—an approach aligned with the caution of Alakrash and Razak (2021). Though teaching time showed no strong statistical link to literacy outcomes, learners expressed the need for more flexible and individualized instruction.

Table 6

Proposed Interventions to Improve Literacy Outcomes in ALS

Domain	Intervention Strategies	Objectives	Expected Outcomes	Responsible Unit/Personnel
Teaching Materials	Develop and distribute contextualized and leveled writing modules with grammar guides, writing samples, and structured activities.	To provide learners with guided, relevant, and engaging materials that support writing development	Increased learner ability to organize, express, and revise written outputs with reduced grammatical errors	Learning Resource Management and Development System (LRMDS); ALS Teachers
Technology	Integrate structured digital writing tasks (e.g., guided online journaling, blogging with feedback, use of monitored AI writing tools)	To transform technology use from passive consumption to active writing engagement	Improved writing proficiency through tech-supported but teacher-guided writing practice	ALS Teachers; ICT Coordinator
Teaching Time	Implement flexible instructional scheduling and one-on-one coaching sessions during remedial or enrichment hours	To address learners' varied pacing and provide personalized reading and writing support	Improved learner confidence, especially in oral reading fluency and clarity in written expression	ALS Teachers; District ALS Coordinators
Teaching Strategy	Conduct capacity-building workshops on evidence-based reading strategies (e.g., repeated reading, think-aloud, vocabulary scaffolding)	To equip ALS teachers with instructional techniques proven to improve reading comprehension and fluency	Improved reading proficiency, especially in comprehension, vocabulary use, and summarizing	ALS Education Program Specialist; District ALS Coordinators; Master ALS Teachers
Monitoring and Feedback	Establish regular formative assessment cycles using rubrics for both reading and writing, followed by individual feedback	To monitor learner progress and inform teaching adjustments	Sustained improvement in both reading comprehension and writing mechanics through timely teacher intervention	ALS Teachers
Collaborative Learning	Incorporate peer-led reading groups and collaborative writing workshops	To strengthen learner engagement, peer feedback, and confidence in using literacy skills	Increased fluency, critical thinking, and idea organization through social interaction	ALS Teachers

Thus, flexible scheduling and one-on-one coaching are proposed, in line with Loopoo and Balfour (2021) and Reder et al. (2020), who advocate personalized learning approaches. The strong influence of teaching strategies on reading proficiency also led to the recommendation of teacher training on evidence-based methods, including repeated reading, vocabulary scaffolding, and think-alouds, as endorsed by Hidayati et al. (2021) and Rupley et al. (2020). Furthermore, the plan includes formative assessments with rubric-based feedback, promoting learner reflection and improvement, in line with Limbong et al. (2023) and Shen et al. (2024). Lastly, to enhance engagement and confidence, collaborative learning strategies such as peer-led reading groups and writing workshops are recommended, supported by Chua and Bhar (2022) and Chen and Lee (2022), who emphasize the literacy benefits of social learning. Overall, the intervention addresses both structural and instructional gaps with research-driven solutions to improve literacy outcomes in the ALS setting.

4. Conclusions

Based on the study's significant findings, several conclusions were drawn. First, although ALS learners did not mention teaching strategies as their primary resources, this study still included them alongside materials, technology, and time because of their instructional value, highlighting a gap between instructional practices and learners' perceptions. Regarding the extent of resource allocation, teaching materials received a very high rating, indicating that instructional resources such as modules and handouts were generally available and helpful, reinforcing their central role in delivering foundational content. Technology also received a very high score, reflecting its growing integration into instruction and suggesting that digital tools and platforms were accessible and incorporated into learners' experience. However, this underscores the need for guided use. Teaching time was

rated relatively low, though still high, suggesting potential challenges in providing personalized instruction and sufficient support, as well as limitations in flexible scheduling. The teaching strategy received the highest score, indicating strong learner appreciation for the instructional approaches used by their teachers. In terms of literacy outcomes, reading proficiency was rated very high, indicating that learners can recognize, understand, and process texts effectively when supported by appropriate learning conditions. Writing proficiency was also rated highly, reflecting learners' ability to construct coherent sentences and express ideas clearly; however, this area remains sensitive to the quality of instructional guidance and the application of resources. The study further found a positive link between teaching strategies and reading proficiency, showing that interactive and learner-centered approaches effectively improve comprehension. Similarly, teaching materials and technology positively influence writing skills by providing structured resources and digital tools that enhance practice and creativity. However, the negative association of teaching time with both reading and writing proficiency suggests that simply increasing instructional time does not guarantee better outcomes; instead, the focus should be on the quality and effectiveness of teaching methods and materials. Based on these insights, the proposed interventions detailed in Table 11 offer targeted improvements in teaching methods, contextualized materials, and learner-centered delivery, designed to address the nuanced gaps in resource effectiveness and support sustained literacy gains among ALS learners.

Recommendations - Based on the findings and conclusions of this study, several recommendations are proposed to strengthen the implementation of the ALS program further. First, ALS implementers and local DepEd offices are encouraged to explore additional resources beyond academics, such as motivational and emotional support, which may help build learners' confidence, address life challenges, and promote persistence in learning. To enhance resource allocation, the Department of Education (DepEd) ALS Division, in coordination with local government units (LGUs), may continue providing updated, practical, and accessible learning materials in both print and digital formats. To improve the integration of technology, DepEd ALS implementers and LGUs are advised to establish basic computer access for digital literacy sessions. This effort aims to deliver quality, inclusive, and future-ready education, especially for learners affected by geographic, economic, or schooling disruptions.

Additionally, ALS program coordinators and LGUs may respond to learners' needs for flexible and sufficient learning time by offering varied schedules and make-up sessions, whether face-to-face or online. To further support this, LGUs may consider funding the hiring of additional ALS teachers, as learners often bring diverse educational backgrounds and gaps that require personalized instruction to improve outcomes and sustain the program in the long term. ALS teachers and facilitators are also encouraged to incorporate more learner-centered strategies, such as peer learning, collaborative activities, and experiential approaches, such as livelihood or on-the-job training. These strategies are particularly effective in mixed-age groups and emphasize the practical applications of learning. To support literacy outcomes specifically, ALS teachers may strengthen learners' reading confidence through activities such as reading aloud, performance-based reading, and vocabulary scaffolding. Comprehension skills may be developed using prediction, summarization, sequencing, and WH-questioning strategies. For writing proficiency, teachers are encouraged to focus on grammar, mechanics, and creative expression. Tools like writing prompts, rubrics, and collaborative writing activities—such as journaling and storytelling—can be practical, especially when paired with regular short writing tasks and constructive feedback on both content and structure. To equip teachers for these tasks, DepEd ALS coordinators and school heads may prioritize regular teacher training on effective literacy instruction. Training may include strategies such as repeated reading, vocabulary scaffolding, contextualized writing, and the guided use of technology. Workshops may help teachers integrate digital tools meaningfully into writing instruction while avoiding overreliance on passive AI-generated content.

Furthermore, DepEd ALS program managers, in collaboration with LGUs and community partners, are encouraged to pilot the proposed interventions—including training programs, resource development, structured tech use, and personalized instruction—and refine these based on feedback from both learners and teachers before implementing them more broadly across ALS centers. Lastly, future research may explore what ALS learners truly need to support their learning. This includes not only access to technology but also suitable learning spaces, updated materials, and livelihood training tools. Studying how these resources—when well managed—impact learner progress over time would yield valuable insights. Additionally, exploring regional differences in learner

performance may help in tailoring the planning and delivery of ALS programs for greater effectiveness and equity.

5. References

Adeleye, O., Eden, C., & Adeniyi, I. (2024). Educational technology and the digital divide: A conceptual framework for technical literacy inclusion. *International Journal of Science and Research Archive,* 12(1), 150-156. https://doi.org/10.30574/ijsra.2024.12.1.0405

Alakrash, H. & Razak, N. (2021). Technology-based language learning: investigation of digital technology and digital literacy. *Sustainability,* 13(21), 12304. https://doi.org/10.3390/su132112304

Aziz, S., Naveed, A., & Ahmad, M. (2021). Towards a more effective second language writing pedagogy: using task-based reading to develop writing skills of ESL learners. *University of Chitral Journal of Linguistics and Literature*, 5(I), 330-350. https://doi.org/10.33195/jll.v5ii.256

Baccal, V. S., & Ormilla, R. C. G. (2021). The implementation of the Alternative Learning System in public schools in Isabela, Philippines. *EDUCATUM Journal of Social Sciences,* 7(1), 19-29. DOI: 10.37134/ejoss.vol7.1.3.2021

Baki, Y. (2024). The Impact of Close Reading Strategies on Individual Innovativeness and Life Skills: Preservice Teachers. *Behavioral Sciences*, 14(9), 816. https://doi.org/10.3390/bs14090816

Bernardo, A. & Mante-Estacio, M. (2023). Metacognitive reading strategies and their relationship with Filipino high school students' reading proficiency: insights from the PISA 2018 data. *Humanities and Social Sciences Communications,* 10(1). https://doi.org/10.1057/s41599-023-01886-6

Chen, W. & Lee, Y. (2022). Revisiting proficiency pairing in collaborative writing from an equity theory perspective: voices from high-proficiency EFL learners. *Sage Open, 12(2). https://doi.org/10.1177/21582440221087267*

Chua, Y. & Bhar, S. (2022). A close-up of the use of weblogs and blogging buddies: A case study in Malaysia. *F1000Research,* 11, 189. https://doi.org/10.12688/f1000research.73615.1

Duncombe, C. (2017, October 26). *Unequal opportunities: Fewer resources and worse outcomes for students in schools with concentrated poverty*. The Commonwealth Institute. https://thecommonwealthinstitute.org/tci_research/unequal-concentrated-poverty/

Eden, C., Chisom, O., & Adeniyi, I. (2024). Promoting digital literacy and social equity in education: lessons from successful initiatives. *International Journal of Management & Entrepreneurship Research,* 6(3), 687-696. https://doi.org/10.51594/ijmer.v6i3.880

Fitton, L., McIlraith, A., & Wood, C. (2018). Shared book reading interventions with English learners: A meta-analysis. *Review of Educational Research,* 88(5), 712-751. https://doi.org/10.3102/0034654318790909

Halili, D. & Diva, C. (2023). Reading as a pre-writing activity and the writing skills among ESL students. *International Journal of Social Science, Humanity & Management Research,* 2(09). https://doi.org/10.58806/ijsshmr.2023.v2i9n01

Heitmann, H., Fischer, E., Wagner, P., Pötter, D., Gartmeier, M., & Schmidt-Graf, F. (2023). Flipping the classroom in neurological bedside teaching: a prospective controlled study. *BMC Medical Education*, 23(1). https://doi.org/10.1186/s12909-023-04150-2

Hidayati, I., Amin, M., & Lestari, Y. (2021). A study on teacher strategies in teaching speaking and reading comprehension skills: A case study at SMAN 8 Mataram. https://doi.org/10.2991/assehr.k.210525.068

Li, X. & Chen, T. (2024). The role of second language reading proficiency in moderating second language word recognition. *Education Sciences,* 14(2), 193. https://doi.org/10.3390/educsci14020193

Limbong, S. & Tandibura, F. (2023). Lecturer's personal and social competence toward students' writing proficiency in the EFL classroom. *Journal of English Education and Teaching,* 7(4), 914-927. https://doi.org/10.33369/jeet.7.4.914-927

Loopoo, V. & Balfour, R. (2021). Improving reading strategies and assessments used by educators to enhance learner academic success. *Per Linguam,* 37(1). https://doi.org/10.5785/37-1-984

Magatines, G.L. & Flores, G.T. (2024). A study of challenges in delivering instruction, learning resources, and student attitudes: The Case of the ALS Program. *International Journal of Scientific and Research*

Publications, 14 (5). https://www.ijsrp.org/research-paper-0524/ijsrp-p14920.pdf

McKnight, L., Pearce, A., Willis, A., Young, M., & Terrill, B. (2021). Supporting teachers to use genomics as a context in the classroom: an evaluation of learning resources for high school biology. *Journal of Community Genetics,* 12(4), 653-662. https://doi.org/10.1007/s12687-021-00550-3

Megawati, N. (2020). Using a guided writing strategy in teaching descriptive writing to the tenth-grade students. *Edukasi Jurnal Pendidikan Dan Pengajaran*, 38–46. https://doi.org/10.19109/ejpp.v7i1.5590

Misuari-Abdurasul, S. (2023). Vocabulary proficiency: its influence on reading comprehension skills among students in selected secondary schools in Isabela, Basilan. *International Journal of Management Studies and Social Science Research,* 05(03), 382-395. https://doi.org/10.56293/ijmsssr.2022.4650

Pangrazio, L., Godhe, A., & Ledesma, A. (2020). What is digital literacy? A comparative review of publications across three language contexts. *E-Learning and Digital Media,* 17(6), 442-459. https://doi.org/10.1177/2042753020946291

Perater, A. E., & Paglinawan, J. L. (2025). Transitioning to Higher Education: An Assessment on the Readiness of Alternative Learning System (ALS) Graduates Pursuing Bachelor's Degrees. *International Journal of Research and Innovation in Social Science,* 9(5), 2350-2360.DOI: 10.29322/IJSRP.14.05.2024.p14920

Qin, W., Jia, R., & Ren, W. (2024). Pragmatic competence in an email writing task: influences of situation, L1 background, and L2 proficiency. *Written Communication,* 41(4), 726-755. https://doi.org/10.1177/07410883241263543

Reder, S., Gauly, B., & Lechner, C. (2020). Practice makes perfect: practice engagement theory and the development of adult literacy and numeracy proficiency. *International Review of Education,* 66(2-3), 267-288. https://doi.org/10.1007/s11159-020-09830-5

Rupley, W. H., Nichols, W. D., Rasinski, T. V., & Paige, D. D. (2020). Fluency: Deep roots in reading instruction. *Education Sciences, 10*(6), 155. https://doi.org/10.3390/educsci10060155

Shen, X., Ismail, L., & Jeyaraj, J. (2024). Metacognitive strategies and writing proficiency: the mediating role of critical thinking skills in online learning mode during COVID-19. *Pertanika Journal of Social Sciences and Humanities*, 32(4). https://doi.org/10.47836/pjssh.32.4.18

Trapman, M., Gelderen, A., Schooten, E., & Hulstijn, J. (2018). Writing proficiency level and writing development of low-achieving adolescents: the roles of linguistic knowledge, fluency, and metacognitive knowledge. *Reading and Writing,* 31(4), 893-926. https://doi.org/10.1007/s11145-018-9818-9

Tzovla, E. & Kedraka, K. (2020). Teaching biology in primary education. International *Journal of Educational Technology and Learning,* 8(2), 91-97. https://doi.org/10.20448/2003.82.91.97

UNESCO. (2019). *Education for All Global Monitoring Report: The Philippines' Alternative Learning System.* Paris*: UNESCO Publishing*. https://www.unesco.org/en/articles/national-launch-2019-global-education-monitoring-report

United Nations (UN) (2015). Transforming Our World: The 2030 Agenda for Sustainable Development. Resolution Adopted by the General Assembly on 25 September 2015, 42809, 1-13. https://doi.org/10.1007/s13398-014-0173-7.2

Wema, E. (2022). The role of the Tanzania Library Services Board in enhancing information literacy skills among the public in Tanzania. *Information Development,* 40(3), 398-413. https://doi.org/10.1177/02666669221123039

Yusri, S. & Soh, O. (2019). Examining university students' reading performances and behaviors with the use of eye-trackers. *International Journal of Academic Research in Business and Social Sciences,* 9(8). https://doi.org/10.6007/ijarbss/v9-i8/6221

Zeitschrift für Weiterbildungsforschung. (2024). Exploring profiles of engagement in reading, numeracy, writing, and computer skills use of U.S. adults with low literacy skills. *Journal for Research in Adult Education and Lifelong Learning*, 47(2), 205–230. https://doi.org/10.1007/s40955-024-00290-0

Zhang, J. (2023). Writing motivation, strategy use, and proficiency of Chinese non-English majors. *International Journal of English Literature and Social Sciences,* 8(4), 093-099. https://doi.org/10.22161/ijels.84.15