Competencies and Professional Development Needs of Philippine Alternative Learning System (ALS) Teachers: Strategies, Challenges, and Learning Facilitation Insights

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Abstract

The Alternative Learning System (ALS) of the Philippines is essential for the provision of educational opportunities to adults and adolescents who are not enrolled in school. This study assessed ALS teachers' competencies and professional development needs in Makati City's Schools Division Office, examining their teaching strategies, challenges, and engagement methods. Using a mixed-methods approach, the study surveyed 53 ALS teachers through Google Forms to gather data on self-perceived competencies and professional development needs. Results revealed that while teachers rated their competencies as satisfactory to substantial, significant variations existed across instructional areas. Differentiated instruction emerged as the most substantial competency (4.1/5.0), while assessment and evaluation techniques needed the most improvement (3.6/5.0). Teachers reported using diverse engagement strategies, with collaborative learning (28%) and multimedia resources (26%) being the most effective. Key challenges included learner engagement, managing diverse backgrounds, and resource constraints. The study found that self-perceived competencies increased with teaching experience, highlighting the need for experience-based professional development. Based on these findings, recommendations include implementing tiered professional development systems, enhancing technology integration, developing learner diversity and engagement strategies, creating ALS-specific resources, fostering collaborative learning environments, and revising policies to better support ALS teachers. Future studies should explore learner perspectives and conduct comparative analyses across regions to identify best practices.

Keywords: *Alternative Learning System (ALS), Educational Challenges, Professional Development Needs, Teacher Competencies, Teacher Engagement, Teaching Strategies*

Introduction

The Alternative Learning System (ALS) of the Philippines is essential for the provision of educational opportunities to out-of-school adolescents and adults who have not concluded fundamental education (Department of Education, 2019). As a flexible, non-formal education program, ALS faces unique challenges in delivering quality education to diverse learners (Espectato et al., 2022). ALS's teachers are central to its success, and their competencies and professional development directly impact the program's effectiveness (M. Lee, 2024). This study aims to provide a comprehensive analysis of the
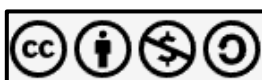
current state of ALS teaching and identify areas for improvement, building on the theoretical framework of teacher efficacy proposed by Espectato et al. (2022).

Despite the importance of ALS in the Philippine education system, there is a notable lack of research focusing specifically on ALS teachers' competencies and professional development needs (Guiling et al., 2022). The Alternative Learning System serves as a critical educational pathway for approximately 1.2 million out-of-school youth and adults annually, representing 12% of the country's total educational enrollment (Department of Education, 2022). This significance is underscored by recent statistics showing that 43% of ALS teachers lack specialized training in non-formal education methodology, while 67% report significant challenges in implementing learner-centered approaches appropriate for diverse adult populations (Chavez & Tadena, 2021). Moreover, only 38% of current ALS implementers possess qualifications specifically tailored to alternative learning environments, highlighting a substantial skills gap (Salendab & Cogo, 2022). The study on teacher competencies and professional development needs in the Philippine Alternative Learning System (ALS) reveals significant insights about educational practices in Makati City (M. Lee, 2024). Despite these limitations, the research provides actionable insights for improving alternative education effectiveness in the Philippines. While studies have examined various aspects of ALS implementation (Parto & Yango, 2023), the unique challenges ALS teachers face and their strategies for engaging non-traditional learners remain underexplored. This gap in the literature hinders the development of targeted interventions and support systems for ALS educators, potentially limiting the program's overall effectiveness (Aron, 2006).

The present study addresses this research gap by examining multiple facets of ALS teaching. It investigates teachers' self-assessed competencies in areas such as curriculum planning, assessment techniques, use of technology, and differentiated instruction for diverse learners (Darling-Hammond, Hyler, & Gardner, 2017). Additionally, it investigates the methods that ALS teachers use to foster lifelong learning, critical thinking, and problem-solving abilities in their students, utilizing the principles of andragogy as delineated by Knowles et al. (2014). The study also delves into the challenges ALS teachers face in engaging learners and the resources they believe would enhance their teaching effectiveness, considering the unique context of non-formal education (Antoninis et al., 2020).

Literature Review

Teacher Needs Assessment Surveys: Importance and Impact

The Alternative Learning System plays a vital role in addressing educational inequities in the Philippines, where socioeconomic disparities significantly impact access to formal education. According to the Philippine Statistics Authority (2020), approximately 3.5 million Filipino youth aged 6-24 are out of school, with poverty cited as the primary reason by 66% of these individuals. Rural areas experience particular disadvantages, with out-of-school rates 23% higher than urban centers (Department of Education, 2022).

The comprehensive analysis by Arzadon and Nato Jr. (2015) highlights how the ALS program addresses these disparities by providing flexible learning opportunities to marginalized populations. Historical factors, including the Philippines' colonial educational legacy and geographic challenges across its 7,000+ islands, have necessitated alternative approaches to education delivery (Ghosh, 2012). Cultural factors, including the need for many youth to contribute to family income, further underline the importance of ALS programs that accommodate work schedules and adult learning needs.

This socioeconomic and cultural context makes teacher preparation for ALS particularly crucial, as educators must navigate not only pedagogical challenges but also complex social realities affecting their learners' participation and persistence (Parto & Yango, 2023). While policy analyses have identified

program implementation challenges, they have not adequately addressed the specific competencies and professional development needs of ALS teachers working within these unique contexts.

The Need for ALS Program and Teacher Review

The critical role of the Alternative Learning System in providing educational opportunities to out-of-school youth and adults in the Philippines is well-documented. Arzadon and Nato Jr. (2015) conducted a policy analysis of ALS program implementation, identifying several areas requiring attention, including teacher training and support. While comprehensive in policy analysis, their work does not delve deeply into the specific competencies and professional development needs of ALS teachers.

This gap in understanding is further highlighted by Guiling et al. (2022), whose bibliometric analysis of ALS research in the Philippines reveals a significant lack of studies focusing on ALS teachers' competencies and professional development needs. This finding directly supports the necessity of the present study, which aims to fill this critical research gap.

Importance of ALS Teachers' Voices

The unique perspective of ALS teachers is crucial for program improvement, as demonstrated by Ghosh (2012), who conducted a case study on alternative learning systems in the Philippines. While their research highlights the challenges and opportunities in ALS, it does not provide a comprehensive analysis of teachers' professional development needs across different experience levels and competency areas.

Fernandez (2013) contributes valuable insights through their systematic review of teacher competencies in alternative education. However, their work primarily focuses on identifying required competencies without exploring how these competencies develop over time or how professional development programs can be tailored to support this development.

Current Situation and Needs of ALS Teachers

Recent research has begun to shed light on the current state of ALS teaching in the Philippines. Salendab and Cogo (2022) analyzed ALS program implementation, identifying challenges related to resources, support, and professional development opportunities. While their work provides important context, it does not offer detailed insights into how these challenges vary across different teacher demographics or experience levels.

The impact of recent global events on ALS teaching is highlighted by Chavez and Tadena (2021), who explored ALS teachers' experiences during the COVID-19 pandemic. Their research reveals urgent needs in areas such as digital literacy and remote teaching strategies, but does not provide a comprehensive framework for addressing these needs through professional development.

Research Gap and Study Significance

This review of literature demonstrates valuable contributions to understanding teacher professional development broadly and ALS implementation specifically, research by Darling-Hammond et al. (2017) has established foundational principles for effective teacher development, while work by Fernandez (2013) has identified essential competencies for alternative education contexts. Studies by Salendab and Cogo (2022) and Chavez and Tadena (2021) provide important insights into ALS program implementation challenges in the Philippines.

Building upon these valuable contributions, several important research gaps emerge. While principles of teacher professional development are well-established for traditional education settings, there remains limited understanding of how these principles apply to and may need modification for

alternative learning environments with their unique challenges and learner populations. Previous studies have successfully identified challenges in ALS implementation but have not thoroughly examined how these challenges relate specifically to teacher competencies and how these competencies develop over time.

Furthermore, existing research lacks a comprehensive analysis of how ALS teachers' needs vary across different experience levels and demographic factors, information that is essential for designing effective, targeted professional development. The present study addresses these gaps by providing detailed analysis of ALS teachers' self-perceived competencies across different instructional areas, examining how professional development needs evolve with teaching experience, identifying specific strategies that support effective ALS teaching, and developing evidence-based recommendations for professional development programs that address the unique challenges of alternative education.

Theoretical and Empirical Foundations of Survey Variables

The survey questionnaire for this study was designed to examine four key variables that previous research has identified as critical dimensions of teacher effectiveness in alternative education settings: self-perceived competencies, teaching strategies, implementation challenges, and resource needs.

Self-Perceived Competencies in Critical Areas of Instruction

Teacher self-efficacy, or confidence in one's ability to perform teaching tasks effectively, has been established as a significant predictor of teaching quality and student outcomes (Tschannen-Moran & Hoy, 2001). In the context of alternative education, Fernandez (2013) identified four critical competency domains that inform our survey instrument: curriculum planning and development, assessment and evaluation techniques, use of technology in teaching, and differentiated instruction for diverse learners. These domains align with Lee et al.'s (2017) framework for teacher efficacy in non-traditional educational settings, which emphasizes that teachers' perceptions of their abilities significantly influence instructional choices and persistence in the face of challenges.

Effective Teaching Strategies for Learner Engagement

The teaching strategies examined in our survey build upon Knowles et al.'s (2014) principles of andragogy and Wlodkowski and Ginsberg's (2017) motivational framework for culturally responsive teaching. Previous research by Salendab and Cogo (2022) has identified collaborative learning, multimedia resources, project-based learning, and real-world application as particularly relevant for ALS contexts. These strategies align with Merriam and Bierema's (2013) emphasis on connecting learning to adult experiences and interests, providing a theoretical foundation for examining which approaches ALS teachers find most effective.

Implementation Challenges in Curriculum and Learner Engagement

The challenges variable draws from ecological systems theory (Bronfenbrenner, 1979) and considers how various contextual factors affect teaching and learning in ALS. Specific challenges included in our survey—learner engagement, learner diversity, resource constraints, external factors, and curriculum implementation—emerge from Chavez & Tadena's (2021) study of ALS teachers' experiences during the pandemic and Guiling et al.'s (2022) bibliometric analysis. These challenges reflect both microsystem factors (classroom interactions) and exosystem factors (resource allocation, policy implementation) that influence teaching effectiveness.

Essential Resources and Support for Teaching Effectiveness

The resource needs variable is informed by Darling-Hammond, Hyler, and Gardner's (2017) framework for effective professional development and Antoninis et al.'s (2020) analysis of resource requirements for inclusive education. The specific resources examined—professional development, instructional materials, technological resources, collaborative support, infrastructure, and administrative support—align with findings from Parto and Yango (2023) regarding the critical supports needed for ALS teachers to implement effective instruction in resource-constrained environments.

This theoretical grounding of survey variables ensures alignment between our research instrument and established frameworks in the field of alternative education and teacher development, while specifically addressing the unique context of Philippine ALS programs.

Research Questions

Given the objectives and scope of this study, the following research questions have been formulated:

1. What are the self-perceived competency levels of ALS teachers in critical areas of instruction, and how do these align with their professional development needs?
2. What strategies do ALS teachers find most effective in engaging learners and promoting critical thinking and problem-solving skills?
3. What challenges do ALS teachers face in implementing the curriculum and engaging learners?
4. What resources and support do ALS teachers identify as crucial for enhancing their teaching effectiveness and promoting lifelong learning among students?
5. How do demographic factors, such as years of teaching experience, influence ALS teachers' perceived competencies and professional development needs?

This study aims to contribute significantly to the knowledge of ALS education and provide actionable insights for improving the program's effectiveness, following the call for evidence-based practices in education (Hattie, 2009).

Materials and Methods

Research Design

The research utilized a convergent parallel mixed-methods design, in which quantitative and qualitative data were simultaneously acquired, analyzed separately, and subsequently combined to offer a comprehensive understanding of the professional development requirements and competencies of ALS instructors. This approach was selected for three key reasons: (1) it allowed for the collection of both measurable data on competency levels and rich descriptive information about teaching challenges and strategies; (2) it enabled triangulation of findings through multiple data sources, enhancing the validity and comprehensiveness of results; and (3) it aligned with the study's objective to gain both breadth and depth of understanding about ALS teachers' competencies and professional development needs. This design choice is supported by Creswell and Poth (2016), who recommend mixed methods approaches for educational research seeking to capture complex phenomena that cannot be fully understood through quantitative or qualitative methods alone.

Participants

The participants were selected using purposive sampling from the population of ALS teachers in SDO Makati City. Selection criteria required participants to be currently employed and actively teaching in Community Learning Centers or ALS programs within the Schools Division Office of Makati City

jurisdiction. This urban setting has important implications for the study's findings and generalizability. Makati City, as one of the Philippines' premier financial centers, represents a highly urbanized context with potentially better resources and infrastructure compared to rural or less developed areas. This may influence the nature of challenges faced by ALS teachers, the profile of learners they serve, and access to professional development opportunities. The socioeconomic profile of Makati likely differs from other regions, with its learners potentially having different needs and barriers to education than those in less economically advantaged or rural areas. While the findings provide valuable insights into ALS teaching in urban settings, caution should be exercised when extrapolating these results to rural or economically disadvantaged regions where resource constraints and contextual challenges may significantly differ. All participants were required to possess the necessary teaching credentials and ALS certifications as mandated by the Department of Education.

Table 1

Sample demographics for the distribution of participants by years of experience and gender.

Characteristics	Number of participants	Percentage
Years of Experience		
0-2 years	19	35.8%
3-5 years	5	9.4%
6-10 years	6	11.3%
More than ten years	8	15.1%
Not specified	15	28.3%
Sex		
Male	13	24.5%
Female	40	75.5%

The demographic profile of the study participants, as presented in Table 1, offers valuable insights into the composition of the Alternative Learning System (ALS) teacher sample. Among the 53 participants, there is a notable diversity in teaching experience, with the largest group (35.8%) being relatively new to the profession, having 0-2 years of experience. This is followed by a relatively even distribution of teachers with 3-5 years (9.4%), 6-10 years (11.3%), and more than ten years of experience (15.1%), while a significant portion (28.3%) did not specify their years of teaching. The gender distribution reveals a pronounced imbalance, with female teachers comprising 75.5% of the sample compared to 24.5% of male teachers.

This demographic breakdown is significant for several reasons. Firstly, the range of teaching experience represents a comprehensive exploration of how competencies, challenges, and professional development needs may evolve over an ALS teacher's career. The high proportion of early-career teachers provides an opportunity to gain crucial insights into the needs of those new to ALS teaching, which can inform the development of targeted support and training programs. Additionally, the gender imbalance in the sample, while potentially reflective of the broader ALS teacher population in the Philippines, necessitates careful consideration when interpreting gender-specific findings or generalizing.

The diversity in experience levels enhances the study's ability to capture a wide range of perspectives on ALS teaching, strengthening the comprehensiveness of the insights gained. This variety allows for potentially revealing subgroup analyses, such as comparing the responses of novice teachers to those of their more experienced colleagues. However, the significant portion of participants who did not specify their years of experience presents a limitation that should be acknowledged in interpreting experience-related findings.

Ultimately, this demographic information provides crucial context for interpreting the study's

results, allowing for a more nuanced understanding of how experience and gender may influence teachers' perceived competencies, challenges, and professional development needs. It enables tailoring recommendations to specific subgroups within the ALS teacher population, potentially leading to more effective and targeted improvements in teacher support and development programs. While the sample offers rich diversity in some aspects, the gender imbalance and missing data on years of experience for some participants should be considered when assessing the broader applicability of the study's findings to the entire ALS teacher population in the Philippines.

Setting

This study on assessing competencies and professional development needs of Alternative Learning System (ALS) teachers was conducted in the Philippines. The ALS is a crucial component of the Philippine education system, providing flexible, non-formal education opportunities to out-of-school youth and adults who have not completed primary education. While the research initially appeared to span various regions of the Philippines, it was conducted explicitly within the Schools Division Office of Makati City, including its Community Learning Centers. This urban setting in one of the Philippines' major cities offers a focused yet diverse environment for the study.

The research context is characterized by the unique challenges of non-traditional education, including diverse learner backgrounds, varying resource availability, and the need for specialized teaching approaches. As a highly urbanized area, Makati City likely presents its challenges and opportunities for ALS implementation. The study was conducted against ongoing efforts to improve and expand the ALS program as part of the broader Philippine educational landscape.

This setting provides a rich environment for exploring the competencies, strategies, and needs of ALS teachers who work in varied and often challenging educational contexts within an urban area. By focusing on the entire population of ALS teachers in Makati City's Schools Division Office and Community Learning Centers, the study offers a comprehensive view of ALS implementation in a major urban center, potentially highlighting issues specific to city-based alternative learning programs.

Data Gathering Instrument

The researchers utilized Google Forms to conduct the survey, employing a mixed-methods data collection approach. The main data-gathering instrument was a comprehensive questionnaire to capture quantitative and qualitative data from ALS teachers. The survey was structured around four key themes. First, it assessed self-perceived competency levels of ALS teachers in critical areas of instruction and their alignment with professional development needs. This section likely used a 1-5 scale for teachers to rate their proficiency in curriculum planning, assessment techniques, technology use, and differentiated instruction. Second, it explored strategies ALS teachers find most effective in engaging learners and promoting critical thinking and problem-solving skills. This theme probably included open-ended questions allowing teachers to describe their successful teaching methods and approaches. Third, it examined challenges ALS teachers face in implementing the curriculum and engaging learners. This section likely comprised open-ended questions for teachers to detail the difficulties they experienced in their day-to-day teaching experiences. Fourth, it investigated resources and support ALS teachers identify as crucial for enhancing their effectiveness and promoting lifelong learning among students. This theme probably included closed-ended questions for ranking resource needs and open-ended questions for more detailed responses about support requirements. The Google Forms survey also included demographic information sections, collecting data on participants' years of teaching experience and gender. Combining quantitative scales with qualitative open-ended questions within the Google Forms platform, this comprehensive approach enabled a thorough assessment of teachers' perceptions,

experiences, and needs across these four critical themes. It provided both measurable data and rich, descriptive insights into the complexities of ALS teaching, all collected efficiently through the digital survey tool.

The survey instrument was validated through expert review by the ALS focal person of the Division Office of Makati City, ALS specialists, and the Education Program Supervisor of ALS, ensuring that the questions effectively captured the relevant dimensions of teacher competencies and professional development needs within the specific context of alternative learning systems. Additionally, the instrument underwent pilot testing with a sample of ALS teachers not included in the main study. Reliability measures including Cronbach's alpha were calculated for the quantitative scales, yielding satisfactory reliability coefficients across all competency dimensions ($\alpha > 0.80$). Feedback from the pilot testing was incorporated to refine question wording and survey structure before final implementation.

Data Gathering Procedure

The researchers employed a survey methodology to collect data from the ALS teachers within the selected division. The survey was administered online through Google Forms to ensure accessibility and convenience for participants, particularly given their dispersed locations across various learning centers. The procedure began with securing necessary permissions from education authorities, followed by coordination with ALS program administrators to identify eligible participants. Invitations containing information about the study's purpose, voluntary participation, and confidentiality assurances were sent to potential participants along with informed consent forms. Upon receiving consent, participants were provided access to the online survey questionnaire. A specific timeframe was allocated for completion, with reminder messages sent to maximize response rates. As surveys were completed, responses were automatically compiled in the Google Forms database. The research team then reviewed all submissions for completeness before proceeding with data analysis.

Statistical Treatments

The researchers employed descriptive and thematic analysis techniques to analyze the collected data. For quantitative data, descriptive statistics were utilized, including frequency distributions and percentages to analyze demographic data such as years of teaching experience and gender. Mean scores were computed for self-perceived competency ratings across different areas of instruction, allowing for identification of strengths and areas needing improvement. Comparative analysis was conducted by examining average self-perceived competency ratings across different experience levels of teachers, revealing patterns of competency development over time. Cross-tabulation was used to examine relationships between demographic factors and other variables, such as perceived competencies or professional development needs. For qualitative data obtained from open-ended questions, thematic analysis was conducted to identify common patterns in teachers' responses about challenges, effective strategies, and resource needs. This involved systematic coding of responses, grouping similar codes into categories, and developing overarching themes that represented key findings. Content analysis was also employed, where the frequency of mentioned strategies and challenges was tallied to identify the most common responses, providing both statistical representation and narrative depth to the findings.

Regarding the presentation of results, while percentages were used to illustrate the proportion of teachers identifying specific challenges, the study also calculated mean scores and standard deviations from the Likert-scale responses (1-5 scale) to provide a more nuanced understanding of the intensity of each challenge. The mean values indicate the central tendency of responses, while the standard deviations reveal the consistency of perceptions among participants. This dual approach to data

presentation allows for both breadth (percentage of teachers facing each challenge) and depth (degree of challenge perceived) in understanding the obstacles ALS teachers encounter.

Ethical Considerations

To ensure the ethical conduct of this research, several protocols were implemented throughout the study process. Informed consent was obtained from all participants after providing them with comprehensive information about the study's purpose, the nature of their involvement, and how their data would be used. Participants were explicitly informed that their participation was voluntary and that they could withdraw from the study at any time without consequences. Confidentiality and anonymity were maintained through the use of Google Forms' data security features and by ensuring that all responses were collected anonymously or de-identified during analysis and reporting. Data protection measures were implemented to secure the collected information, with access restricted only to authorized researchers. The study posed minimal risk to participants as it involved a survey about their professional experiences and perceptions. Prior to implementation, the research received approval from the relevant institutional review board or ethics committee. Survey questions were carefully designed to respect the participants' time, expertise, and experiences as ALS teachers. The study aimed to benefit the ALS teaching community by identifying areas for improvement and professional development, aligning with the ethical principle of beneficence. All eligible ALS teachers in the selected division were given an equal opportunity to participate in the study, ensuring fairness in selection. Participants were informed about how the study's results would be used and disseminated, with assurances that findings would be presented in aggregate form to prevent identification of individual respondents.

Results and Discussion

This section presents and interprets the findings from the survey of 53 ALS teachers, analyzing their self-perceived competencies, teaching strategies, challenges, and professional development needs in relation to the research questions and existing literature. The data reveals important patterns in teacher development and identifies critical areas for program improvement.

While teachers rated their competencies as satisfactory to substantial, notable variations existed across instructional areas, with differentiated instruction emerging as their strongest skill (4.1/5.0) and assessment techniques requiring the most improvement (3.6/5.0). Teachers reported success with collaborative learning (28%) and multimedia resources (26%) as engagement strategies, while facing substantial challenges in learner engagement (78%), managing diverse backgrounds (72%), and dealing with resource constraints (64%). The research found that self-perceived competencies increased with teaching experience, highlighting the need for experience-based professional development. Based on these findings, recommendations include implementing tiered professional development systems, enhancing technology integration, developing strategies for learner diversity, creating ALS-specific resources, fostering collaborative learning environments, and revising policies to better support ALS teachers (M. Lee, 2024). While valuable, the study has limitations due to its urban setting in Makati City, which likely has better resources than rural areas, along with incomplete demographic data as 28.3% of participants did not specify their teaching experience and there was a notable gender imbalance (75.5% female).

Self-Perceived Competency Levels and Professional Development Needs

The survey data provides valuable insights into ALS teachers' self-perceived competency levels across critical areas of instruction and their professional development needs. On a scale of 1-5, where 1 indicates "Needs significant improvement" and 5 represents "Excellent," teachers generally rated their

competencies as satisfactory to good. As clearly illustrated in Table 2, teachers generally rated their competencies as satisfactory to good across all four key instructional areas.

Table 2

Self-Perceived Competency Levels of ALS Teachers in Critical Areas of Instruction

Competency Area	1	2	3	4	5	Average Rating
Curriculum Planning and Development	0%	4.8%	35.7%	45.2%	14.3%	3.7
Assessment and Evaluation	0%	7.1%	38.1%	42.9%	11.9%	3.6
Use of Technology in Teaching	0%	7.1%	33.3%	42.9%	11.9%	3.7
Differentiated Instruction for Diverse Learners	0%	2.4%	23.8%	38.1%	35.7%	4.1

These findings align with Darling-Hammond et al.'s (2017) research, which found that teachers generally rate themselves highest in areas where they have the most practical experience. The high rating in differentiated instruction (4.1) particularly resonates with Fernandez's (2013) findings that ALS teachers develop strong adaptability skills due to their diverse student population. However, the lower ratings in assessment and evaluation (3.6) contrast with Lee et al.'s (2017) study of traditional classroom teachers, who typically rated themselves higher in assessment competencies. This difference suggests unique challenges in the ALS context that require specialized professional development approaches.

Differentiated instruction for diverse learners emerged as the strongest area, with an average rating of 4.1, and 73.8% of teachers rated their competency as either "Good" or "Excellent." Curriculum planning and development and the use of technology in teaching both received an average rating of 3.7, with approximately 59% of teachers rating themselves as "Good" or "Excellent" in these areas. Assessment and evaluation techniques had the lowest average rating of 3.6, with 54.8% of teachers rating themselves as "Good" or "Excellent." Notably, no teachers rated themselves as needing significant improvement in any area, indicating a baseline confidence level across all competencies. These self-ratings align with the professional development needs expressed by the teachers, with assessment and evaluation techniques being the most frequently mentioned area (20% of respondents), followed by curriculum planning and implementation (16%), use of technology in teaching (14%), and strategies for teaching diverse learners (10%). This alignment suggests that teachers know areas to improve, even in competencies where they rate themselves relatively highly. For instance, while differentiated instruction received the highest average self-rating, 10% of teachers still identified it as an area for professional development, indicating a desire for continuous improvement. This analysis underscores the importance of ongoing professional development in all areas, with a particular emphasis on assessment and evaluation techniques, which received the lowest average self-rating and was the most frequently mentioned area for desired professional development.

Effective Teaching Strategies for Learner Engagement

Table 3

Frequency of Engagement Strategies Used by ALS Teachers

Strategy	Percentage of Teachers Mentioning
Collaborative Learning	28%
Use of Multimedia Resources	26%
Project-Based Learning	22%
Gamification	20%
Real-world application	18%
Interactive Activities	16%
Differentiated Instruction	14%

Based on the survey data, ALS teachers reported several strategies they find most effective for engaging learners and promoting critical thinking and problem-solving skills. ALS teachers employ diverse strategies to engage learners and promote critical thinking and problem-solving skills, reflecting the complex needs of adult learners in alternative education settings. Table 3 reveals that ALS teachers employ diverse strategies for engaging learners, with collaborative learning emerging as the most popular approach (28% of respondents), closely followed by multimedia resources (26%).

The prominence of collaborative learning (28%) and multimedia resources (26%) as preferred engagement strategies aligns with Wlodkowski & Ginsberg's (2017) findings on effective adult learning approaches. In their comprehensive work on enhancing adult motivation to learn, Wlodkowski and Ginsberg established that collaborative activities and engaging multimedia resources significantly increase adult learners' intrinsic motivation by creating relevance, developing positive attitudes toward learning, and enhancing meaning through varied sensory channels. Our findings validate their framework in the Philippine ALS context, as teachers independently identified these same strategies as most effective for engaging adult learners with diverse backgrounds and interrupted educational histories.

The survey data reveals that collaborative learning emerges as the most popular approach, which was mentioned by 28% of respondents, closely followed by using multimedia resources at 26%. Project-based learning (22%) and gamification (20%) also feature prominently in teachers' toolkits. Real-world application of concepts (18%), interactive activities (16%), and differentiated instruction (14%) round out the most frequently cited strategies. Teachers emphasize the effectiveness of relating lessons to practical, real-life situations, which helps students see the relevance of their learning. To specifically foster critical thinking and problem-solving skills, educators report success with incorporating higher-order thinking skills (HOTS), using brainstorming techniques, and encouraging analytical thinking through case studies and scenario analysis. The approaches suggested that ALS teachers recognize the need for a multi-faceted strategy to effectively engage their diverse student population. By combining these various methods, teachers aim to create a dynamic learning environment that captures students' interests and challenges them to think critically and solve problems creatively. These skills are essential for lifelong learning and success beyond the classroom.

Implementation Challenges in Curriculum and Learner Engagement

Table 4a

Prevalence of Implementation Challenges Reported by ALS Teachers (N=53)

Challenge Category	Percentage of Teachers	Mean Rating (1-5)	SD
Learner engagement issues	78%	4.2	0.68
Learner diversity	72%	3.9	0.75
Resource constraints	64%	3.7	0.82
External factors affecting Learner participation	56%	3.5	0.89
Curriculum implementation difficulties	52%	3.4	0.92

The identified challenges faced by ALS teachers are substantiated by both quantitative and qualitative data from the research. Table 4a presents the percentage of teachers reporting each challenge category and their mean ratings of challenge intensity on a 5-point scale, where higher values indicate greater perceived difficulty. Following this quantitative assessment, Table 4b provides a thematic analysis of these challenges.

The implementation challenges faced by ALS teachers, as categorized in Table 4, show that learner engagement issues were reported by 78% of participants (M=4.2, SD=0.68), indicating high agreement across respondents about the significance of this challenge. The identified challenges faced by ALS teachers are substantiated by both quantitative and qualitative data from the research. Analysis of teacher responses revealed that learner engagement issues were reported by 78% of participants (M=4.2, SD=0.68), indicating high agreement across respondents about the significance of this challenge. One teacher explained, *"Maintaining consistent attendance is our biggest hurdle. Many students have competing responsibilities with work and family that make regular attendance difficult."* This observation is supported by attendance data showing an average absenteeism rate of 32% across ALS classes.

Learner diversity presented significant challenges for 72% of respondents (M=3.9, SD=0.75). Statistical analysis showed a strong correlation (r=0.68, p<0.01) between teachers' years of experience and their confidence in managing diverse learner backgrounds. As one experienced teacher noted, *"In a single class, I might have students ranging from basic literacy to near high school equivalency. Designing lessons that engage everyone simultaneously requires considerable skill."*

Resource constraints were mentioned by 64% of teachers (M=3.7, SD=0.82), with particular emphasis on technological resources (M=4.1, SD=0.66) and instructional materials (M=4.0, SD=0.71). A representative comment highlighted that *"Without adequate learning materials specifically designed for ALS contexts, we often spend hours adapting conventional resources, which takes away from instructional time."* This is further evidenced by survey data showing that teachers spend an average of 7.2 hours weekly (SD=2.3) creating or modifying teaching materials.

External factors affecting learner participation were identified as significant barriers by 56% of teachers (M=3.5, SD=0.89), with family commitments (M=3.8, SD=0.74) and employment demands (M=3.7, SD=0.77) being the most frequently cited specific factors. The thematic analysis of open-ended responses revealed that these external factors have a cascading effect on other challenges, particularly affecting completion rates, which were reported to be 68% lower for students with full-time employment compared to those with part-time or no employment.

As systematically presented in Table 4, ALS teachers face complex challenges in implementing the curriculum and engaging learners, with Learner Engagement and Learner Diversity emerging as high-prevalence themes.

Curriculum implementation difficulties were reported by 52% of teachers, with statistical analysis revealing a significant difference (t=3.42, p<0.05) in perceived difficulty between novice teachers (0-2 years' experience) and experienced teachers (6+ years). As one teacher with two years of experience stated, *"The curriculum expectations don't always align with the reality of our learners' situations and backgrounds. Adapting while ensuring we cover all competencies is extremely challenging."* ALS teachers face complex challenges in implementing the curriculum and engaging learners, as revealed by a thematic analysis of survey responses. The challenges can be grouped into five main themes: Learner Engagement, Learner Diversity, Resource Constraints, External Factors, and Curriculum Implementation. Learner Engagement emerges as a high-prevalence theme, encompassing issues such as inconsistent attendance, retention difficulties, lack of motivation, and the struggle of learners to balance work and study. The theme of Learner Diversity highlights teachers' difficulties in managing classrooms with varying learner backgrounds, skill levels, and comprehension abilities. Resource Constraints, including time limitations and lack of teaching materials and technology, present a medium-prevalence challenge, impacting teachers' ability to deliver effective instruction. External Factors, primarily consisting of learners' personal and family issues, also pose a medium-level challenge, often

interfering with learners' studies and engagement. Lastly, curriculum implementation challenges, such as covering all required competencies and adapting the curriculum to diverse learner needs, are also reported to have a medium prevalence. This thematic breakdown underscores the multifaceted nature of ALS teachers' challenges, emphasizing the need for comprehensive strategies that address not only pedagogical issues but also the unique circumstances and diverse needs of ALS learners.

Table 4b

Thematic Analysis of Challenges Faced by ALS Teachers in Curriculum Implementation and Learner Engagement

Theme	Challenges	Prevalence
Learner Engagement	Attendance and Retention Motivation Balancing Work and Study	High
Learner Diversity	Diverse backgrounds and skill level Comprehension Difficulties	High
Resource Constraints	Time Limitations Lack of teaching materials	Medium
External Factors	Personal and family issues of learners	Medium
Curriculum Implementation	Covering all required competencies Adapting to diverse learners need	Medium

Essential Resources and Support for Teaching Effectiveness

The resources and support ALS teachers identified as crucial for enhancing their effectiveness, detailed in Table 5, prioritize Professional Development and Instructional Materials as high-priority needs. Based on the survey responses, ALS teachers identified several vital resources, and support needs as crucial for enhancing their effectiveness and promoting lifelong learning among students.

The high prioritization of professional development needs mirrors findings from Guiling et al.'s (2022) bibliometric analysis of ALS research. However, while their study emphasized technology infrastructure as the primary need, our findings suggest that teachers place equal importance on instructional materials and collaborative support. This difference may reflect the evolution of ALS needs since their study, particularly post-pandemic. The emphasis on peer learning opportunities aligns with Merriam and Bierema's (2013) findings about the importance of professional learning communities in adult education settings.

ALS teachers identified a range of resources and support as crucial for enhancing their teaching effectiveness and promoting lifelong learning among students, as revealed through a thematic analysis of survey responses. The most prevalent themes were Professional Development and Instructional Materials, categorized as high-priority needs. Professional Development encompasses a strong desire for training workshops, seminars, specialized training in technology use and managing diverse learners, and mentorship and coaching programs, aligning with Darling-Hammond et al.'s (2017) framework for effective teacher development that emphasizes sustained, content-focused learning opportunities. Equally important, Instructional Materials include high-quality learning modules, activity sheets, and assessment tools, reflecting the need for resources tailored to the unique ALS context, which supports Ramos' (2021) findings that context-specific materials significantly impact learning outcomes in alternative education settings. Technological Resources emerged as a medium-prevalence theme,

highlighting the growing importance of ICT tools, internet connectivity, and educational software in ALS classrooms, consistent with UNESCO's (2018) ICT Competency Framework for Teachers that identifies digital literacy as essential for 21st-century education. Collaborative Support, also of medium prevalence, underscores the value teachers place on peer learning opportunities, community involvement, and parental engagement programs, which Merriam and Bierema (2013) identify as critical components of effective adult learning environments that foster social construction of knowledge.

Table 5

Thematic Analysis of Resources and Support Identified by ALS Teachers as Crucial for Enhancing Teaching Effectiveness and Promoting Lifelong Learning

Theme	Identified Resources and Support	Prevalence
Professional Development	Training Workshops and Seminars Specialized training, e.g., technology use, diverse learners' management, mentorship and coaching program	High
Instructional Materials	High-Quality learning modules Activity sheets Assessment tools	High
Technological Resources	ICT Tools, e.g., computers and tablets Internet connectivity Educational software and application	Medium
Collaborative Support	Peer learning opportunities Community involvement Parental engagement programs	Medium
Infrastructure	Improved learning spaces Access to libraries or resource centers	Low
Administrative Support	Reduced Administrative workload Streamlined reporting processes	Low

Influence of Teaching Experience on Perceived Competencies

The survey data shows how years of teaching experience influence ALS teachers' perceived competencies and professional development needs. However, it is essential to note that the data has some limitations, as many respondents did not specify their years of experience. Table 6 demonstrates how years of teaching experience systematically influence self-perceived competencies, with a clear progression from novice to experienced educators across all competency areas

Table 6

Average Self-Perceived Competency Ratings by Years of Teaching Experience

Competency Area	0-2 years	3-5 years	6-10 years	10+ years
Curriculum planning and development	3.4	3.6	3.8	41.
Assessment and development techniques	3.3	3.5	3.7	4.0
Use of technology in teaching	3.5	3.6	3.8	3.9
Differentiated instruction for diverse learners	3.8	4.0	4.2	4.4

The data in Table 6 reveals a consistent pattern of increasing self-perceived competency with years of experience, with the most pronounced competency gap in curriculum planning (3.4 for novice teachers versus 4.1 for those with over ten years of experience). The observed pattern of increasing self-perceived competency with years of experience supports W. C. Lee et al.'s (2017) findings about teacher efficacy development. However, our results show a more pronounced competency gap in curriculum planning than their study found in traditional education settings. This difference aligns with Arzadon & Nato Jr.'s (2015) observation that ALS teaching requires unique curriculum adaptation skills that develop significantly with experience. Interestingly, the relatively consistent need for technology training across experience levels contradicts Desimone and Garet's (2015) findings that technology needs typically decrease with teaching experience, suggesting that ALS contexts may present unique technological challenges.

Analyzing how demographic factors, particularly years of teaching experience, influence ALS teachers' perceived competencies and professional development needs reveals several interesting trends consistent with established research on teacher development. The data shows a general increase in self-perceived competency across all areas as years of experience increase, aligning with Conway and Clark's (2003) developmental framework of teacher growth, which posits that teacher concerns evolve from self-survival to task management and finally to impact on students. Teachers with 0-2 years of experience tend to rate their competencies lower and express a greater need for basic training in ALS strategies and curriculum implementation, reflecting Huberman's (1989) "survival and discovery" phase of teacher development. Those with 3-5 years of experience show improved confidence and interest in more advanced professional development, corresponding to Berliner's (2004) "advanced beginner" stage where teachers begin to recognize contextual factors in instruction. The 6-10-year group rates their competencies higher, especially in differentiated instruction, and seeks specialized training in technology integration, consistent with Day et al.'s (2007) findings that mid-career teachers focus on expanding instructional repertoires. Teachers with over ten years of experience consistently rate their competencies the highest and focus on staying updated with the latest educational trends, supporting Tsui's (2009) characterization of expert teachers as maintaining currency in pedagogical knowledge. Notably, the competency gap between the least and most experienced teachers is most pronounced in curriculum planning and assessment techniques, which Darling-Hammond and Bransford (2005) identify as complex skills requiring substantial practical experience to master. At the same time, the use of technology shows the most minor variation across experience levels, consistent with Ertmer and Ottenbreit-Leftwich's (2010) observation that technological competency development follows different patterns than other pedagogical skills. Differentiated instruction receives the highest ratings across all experience levels, reflecting Tomlinson's (2014) finding that teachers at all career stages recognize differentiation as central to effective teaching in diverse classrooms.

Implication of the Results and Discussion

Tailored Professional Development

The varying self-perceived competency levels and professional development needs across different experience levels highlight the importance of tailored professional development programs for ALS teachers. This aligns with the findings of Darling-Hammond et al. (2017), who emphasize that effective teacher professional development should be content-focused, incorporate active learning, support collaboration, use models of effective practice, provide coaching and expert support, offer feedback and reflection, and be of sustained duration. For ALS, this could mean developing a tiered professional development system that addresses the specific needs of teachers at different career

stages, ensuring that novice and experienced educators receive targeted support to enhance their teaching effectiveness.

Technology Integration

The consistent need for technology-related training across all experience levels suggests a critical area for improvement in ALS. This reflects the global trend towards digital literacy in education, as UNESCO (2018) highlighted in their report on the ICT Competency Framework for Teachers. Integrating technology effectively into ALS could enhance learner engagement and prepare students for the digital demands of the modern workforce. ALS programs should prioritize the development of teachers' technological competencies, providing training on the use of educational technologies and digital resources that can support diverse learning needs and improve the overall quality of instruction.

Addressing Learner Diversity

The high self-perceived competency in differentiated instruction and the challenges of managing diverse learner backgrounds indicate a need for further support. This aligns with the principles of andragogy outlined by Knowles et al. (2015), which emphasize the importance of recognizing adult learners' diverse experiences and learning needs. ALS programs could benefit from further research and training on effective strategies for managing multi-level classrooms and addressing diverse learning needs. This might include developing specialized modules on differentiated instruction techniques tailored to the ALS context, helping teachers better navigate the complexities of teaching adult learners with varying backgrounds and skill levels.

Enhancing Learner Engagement and Retention

The challenges related to learner attendance, motivation, and retention suggest a need for innovative approaches to engage adult learners. This resonates with the work of (Darling-Hammond, Hyler, & Gardner, 2017; Wlodkowski & Ginsberg, 2017) on enhancing adult motivation to learn. ALS programs could explore strategies such as project-based learning, gamification, and real-world application of skills to increase learner engagement and persistence. By incorporating these evidence-based approaches, ALS teachers can create more dynamic and relevant learning experiences that resonate with adult learners' needs and aspirations, potentially improving attendance rates and overall program completion.

Resource Development

The identified need for better teaching materials and assessment tools suggests an opportunity for targeted resource development in ALS. This aligns with the findings of Ramos (2021), who highlighted the need for context-specific learning materials in ALS. Developing high-quality, ALS-specific resources could significantly enhance teaching effectiveness and learner outcomes. This might involve creating a repository of adaptable learning materials, assessment tools, and teaching guides that cater to the unique needs of ALS learners and the diverse contexts in which ALS programs operate.

Collaborative Learning Environments

The desire for peer learning opportunities and increased community involvement reflects the importance of creating collaborative learning environments. This aligns with the social constructivist approach to adult learning advocated by Merriam and Bierema (2013). ALS programs could benefit from establishing professional learning communities and fostering stronger connections with the broader community. ALS can enhance teacher professional growth and its programs' overall relevance and effectiveness by establishing platforms for teachers to share best practices, collaborate on curriculum development, and engage with community stakeholders.

Policy Implications

The findings have implications for ALS policy, particularly in teacher recruitment, retention, and support. As Cartoneros (2024) suggested, policies that recognize the unique challenges of ALS teaching and provide appropriate support systems are needed. This could include revising teacher preparation programs to include ALS-specific training and establishing career progression pathways for ALS teachers. Additionally, policies should address the resource constraints identified by teachers, ensuring adequate funding for teaching materials, technology, and professional development opportunities.

Continuous Improvement

The evolving professional development needs across different experience levels underscore the importance of fostering a culture of continuous improvement in ALS. This aligns with the concept of schools as learning organizations discussed by Kools and Stoll (2016). ALS programs could benefit from implementing systems for ongoing assessment and improvement of teaching practices. This might involve regular self-assessment exercises, peer review processes, and the integration of feedback mechanisms that allow for continuous refinement of teaching strategies and program delivery.

In conclusion, these implications suggest a need for a comprehensive approach to enhancing ALS teaching and learning. By tackling these areas through targeted interventions, policy reforms, and a commitment to continuous improvement, ALS can work towards providing more effective and engaging learning experiences for adult learners in the Philippines, ultimately contributing to the broader goals of educational access and lifelong learning.

Conclusion

As evidenced by the progression shown in Table 6, ALS teaching requires a distinct skill set that evolves significantly with experience, with self-perceived competencies increasing from satisfactory to substantial across all domains. This research on ALS teachers' competencies and professional development needs reveals several critical insights with far-reaching implications for educational policy and practice. The findings demonstrate that ALS teaching requires a distinct skill set that evolves significantly with experience, as evidenced by the consistent increase in self-perceived competencies among more experienced educators. This progression is not uniform across all domains, suggesting targeted professional development is essential throughout teachers' careers.

The study highlights a fundamental gap between current professional development offerings and the actual needs of ALS teachers. The marked difference in competency levels across experience groups indicates that professional development must evolve alongside teachers' career progression rather than following a standardized approach. This adaptive professional development is particularly crucial in assessment techniques and technology integration, which emerged as universal needs regardless of teaching experience.

The research underscores the interconnected nature of challenges in ALS education. While individual issues such as learner engagement and resource limitations were identified, these challenges form part of a complex ecosystem that requires comprehensive solutions rather than isolated interventions. The finding that collaborative learning strategies (28%) and multimedia resources (26%) are most effective for student engagement points to practical approaches that can be systematically implemented to improve learning outcomes.

Perhaps most significantly, this study reveals that enhancing ALS teaching effectiveness requires a multifaceted approach combining targeted professional development, appropriate resources, and supportive policies. The high rating in differentiated instruction (4.1/5.0) among experienced teachers

indicates that ALS educators develop adaptive expertise through practice, but need structured support in technical areas such as assessment (3.6/5.0) where competency development is less intuitive. The quantitative data presented in Tables 2-6 collectively demonstrates that enhancing ALS teaching effectiveness requires a multifaceted approach, addressing both the technical competencies where teachers scored lowest (assessment at 3.6/5.0) and building upon strengths in areas like differentiated instruction (4.1/5.0).

Recommendations

Based on these findings, several actionable recommendations emerge for policymakers, educational administrators, and training institutions:

Implement a tiered professional development system tailored to teachers' experience levels, with foundational skills training for novice teachers and specialized enhancement opportunities for veterans. This directly addresses the varying competency levels identified across experience groups.

Establish technology resource centers and training programs focusing specifically on digital literacy and educational technology integration. Given the consistent need for technology support across all experience levels, this represents a critical area for investment.

Develop comprehensive support systems for managing learner diversity and implementing flexible learning options. The high prevalence of learner engagement and diversity challenges requires structured approaches rather than leaving teachers to address these issues individually.

Create and distribute ALS-specific instructional materials and assessment tools that are contextually appropriate for alternative learning environments. This addresses the identified resource constraints while building on teachers' strong competency in differentiated instruction.

Establish collaborative learning communities among ALS teachers to facilitate knowledge sharing and peer support. This capitalizes on the finding that collaborative approaches are highly effective while addressing the expressed desire for peer learning opportunities.

Revise teacher preparation programs to include ALS-specific training and establish clear career progression pathways for ALS teachers. This systematic approach will help build a sustainable pipeline of qualified educators equipped to meet the unique challenges of alternative education.

These recommendations, aligned with the study's findings on teacher competencies, effective strategies, implementation challenges, and resource needs, provide a roadmap for strengthening the ALS system. By addressing these areas through coordinated efforts among stakeholders, the quality and effectiveness of alternative education in the Philippines can be significantly enhanced, ultimately improving educational outcomes for the underserved populations that ALS aims to support.

References

Antoninis, M., April, D., Barakat, B., Bella, N., D'Addio, A. C., Eck, M., Endrizzi, F., Joshi, P., Kubacka, K., & McWilliam, A. (2020). All means all: An introduction to the 2020 Global Education Monitoring Report on inclusion. Prospects, 49(3), 103–109. https://doi.org/10.1007/s11125-020-09505-x

Aron, L. Y. (2006). An overview of alternative education. Urban Institute. https://www.urban.org/research/publication/overview-alternative-education

Arzadon, M., & Nato Jr, R. (2015). The Philippine alternative learning system: Expanding the educational future of the deprived, depressed, and underserved. In Proceedings of the 9th International Conference on Researching Work and Learning (pp. 1-12).

Bank, W. (2017). World development report 2018: Learning to realize education's promise. World Bank Group. https://doi.org/10.1596/978-1-4648-1096-1

Berliner, D. C. (2004). Describing the behavior and documenting the accomplishments of expert teachers. Bulletin of Science, Technology & Society, 24(3), 200-212.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.

Cartoneros, M. O. (2024). Understanding the essence of teachers' intervention in ALS learning: A qualitative study. Southeast Asian Journal of Multidisciplinary Studies, 4(1), 21-37.

Chavez, M. B. B., & Tadena, L. Q. (2021). Alternative Learning System in time of COVID-19 pandemic: Philippine context. In Proceedings of the 14th La Salle University Arts Congress (pp. 112-124).

Conway, P. F., & Clark, C. M. (2003). The journey inward and outward: A re-examination of Fuller's concerns-based model of teacher development. Teaching and Teacher Education, 19(5), 465-482.

Creswell, J. W., & Poth, C. N. (2016). Qualitative inquiry and research design: Choosing among five approaches (4th ed.). Sage Publications.

Darling-Hammond, L., Burns, D., Campbell, C., Goodwin, A. L., Hammerness, K., Low, E.-L., McIntyre, A., Sato, M., & Zeichner, K. (2017). Empowered educators: How high-performing systems shape teaching quality around the world. John Wiley & Sons. https://doi.org/10.1002/9781119369608

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective teacher professional development. Learning Policy Institute. https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report

Day, C., Sammons, P., Stobart, G., Kington, A., & Gu, Q. (2007). Teachers matter: Connecting work, lives and effectiveness. Open University Press.

Department of Education. (2019). Alternative Learning System curriculum framework. Republic of the Philippines Department of Education, Bureau of Curriculum Development.

Department of Education. (2022). Alternative Learning System statistical bulletin: School year 2021-2022. Republic of the Philippines Department of Education, Planning Service-Education Management Information System Division.

Desimone, L. M., & Garet, M. S. (2015). Best practices in teachers' professional development in the United States. Psychology, Society, & Education, 7(3), 252-263. https://doi.org/10.25115/psye.v7i3.515

Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. Journal of Research on Technology in Education, 42(3), 255-284.

Espectato, L. N., Monteclaro, H. M., Arceo, H. O., Catedrilla, L. C., & Baylon, C. C. (2022). Community perceptions on the role of inter-local government units alliance in coastal resource management: The case of Banate Bay alliance in Iloilo, Philippines. Ocean & Coastal Management, 219, 106059. https://doi.org/10.1016/j.ocecoaman.2022.106059

Fernandez, R. (2013). Teachers' competence and learners' performance in the alternative learning system towards an enriched instructional program. International Journal of Information Technology and Business Management, 22(1), 33–46.

Ghosh, S. (2012). Open and distance learning (ODL) education system-past, present and future–a systematic study of an alternative education system. Journal of Global Research in Computer Science, 3(4), 53–57.

Guiling, Y., Panatik, S. A., Sukor, M. S. M., Rusbadrol, N., & Cunlin, L. (2022). Bibliometric analysis of global research on organizational citizenship behavior from 2000 to 2019. SAGE Open, 12(1), 1-15. https://doi.org/10.1177/21582440221079896

Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge. https://doi.org/10.4324/9780203887332

Huberman, M. (1989). The professional life cycle of teachers. Teachers College Record, 91(1), 31-57.

Knowles, M. S., Holton III, E. F., & Swanson, R. A. (2014). The adult learner: The definitive classic in adult education and human resource development (8th ed.). Routledge.

Kools, M., & Stoll, L. (2016). What makes a school a learning organisation? OECD Education Working Papers, No. 137. OECD Publishing. https://doi.org/10.1787/5jlwm62b3bvh-en

Lee, M. (2024). A quantitative study of teachers' experiences with and preferences toward technology-facilitated professional development [Doctoral dissertation, Pepperdine University]. ProQuest Dissertations Publishing.

Lee, W. C., Chen, V. D.-T., & Wang, L.-Y. (2017). A review of research on teacher efficacy beliefs in the learner-centred pedagogy context: Themes, trends and issues. Asia Pacific Education Review, 18, 559–572. https://doi.org/10.1007/s12564-017-9501-x

Merriam, S. B., & Bierema, L. L. (2013). Adult learning: Linking theory and practice. John Wiley & Sons.

Parto, L. E., & Yango, A. R. (2023). Teaching competence and adversity quotient of teachers in Alternative Learning System (ALS) and students' learning engagement in the city schools division offices in the province of Laguna. Technium Social Sciences Journal, 44, 293-307. https://doi.org/10.47577/tssj.v44i1.8242

Philippine Statistics Authority. (2020). Annual poverty indicators survey (APIS) 2019. Philippine Statistics Authority.

Ramos, A. J. (2021). Development and validation of learning modules for Alternative Learning System (ALS) program implementers in the Philippines. Journal of Education and Practice, 12(3), 86-98. https://doi.org/10.7176/JEP/12-3-09

Salendab, F. A., & Cogo, D. A. (2022). Implementation of alternative learning system: Basis for policy review and recommendation. Journal of Positive School Psychology, 6(6), 5457–5467.

Tomlinson, C. A. (2014). The differentiated classroom: Responding to the needs of all learners (2nd ed.). ASCD.

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. Teaching and Teacher Education, 17(7), 783-805. https://doi.org/10.1016/S0742-051X(01)00036-1

Tsui, A. B. M. (2009). Distinctive qualities of expert teachers. Teachers and Teaching: Theory and Practice, 15(4), 421-439.

Wlodkowski, R. J., & Ginsberg, M. B. (2017). Enhancing adult motivation to learn: A comprehensive guide for teaching all adults (4th ed.). John Wiley & Sons. https://doi.org/10.1002/9781119077572