

Teachers' Self-Efficacy, Pedagogical Practices, and Challenges in the Alternative Learning System: Their Influence on Learners' Engagement

Eldren R. Suaybaguio

Teacher V, Alternative Learning System, Catigbian District, Schools Division of Bohol, Bohol, Philippines

Email of Corresponding Author: suaybaguioeldren@gmail.com

Publication history:

Received: August 3, 2026

Revised: August 29, 2026

Accepted: September 2, 2026

Published: September 3, 2026

International Journal of Sustainable and Integrated Studies, Vol. 1, No. 2, pp. 28–40, September 2026.

Abstract

This study assessed teachers' self-efficacy and pedagogical practices, learners' engagement, implementation challenges, and coping mechanisms in the Junior High School Alternative Learning System (ALS) of Bohol Division during School Year 2025–2026. Anchored in Social Cognitive Theory, the Pedagogical Content Knowledge Framework, and Self-Determination Theory, the study employed a convergent-parallel mixed-methods design with a descriptive-correlational component. Participants included 30 ALS teachers and 590 Junior High School ALS learners from 15 school districts, with 10 teachers participating in qualitative interviews. Data were collected using survey questionnaires and semi-structured interviews and analyzed through weighted mean, Spearman's Rho, and thematic analysis. Results showed high teacher self-efficacy ($M = 3.35$), highly practiced pedagogical practices ($M = 3.35$), and moderate learner engagement ($M = 3.19$). Teachers' self-efficacy ($p = .741$) and pedagogical practices ($p = .753$) were not significantly related to learner engagement. Major challenges included limited learning resources and professional development, inadequate funding and logistical support, absenteeism and dropout, low learner motivation, and communication barriers. Teachers coped through collaboration, resilience, communication, home visits, and personalized and emotional support. The findings indicate that teacher confidence and instructional competence alone do not directly influence learner engagement, emphasizing the importance of addressing resource gaps, learner motivation, and sustained professional development. The study supports SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), and SDG 17 (Partnerships for the Goals) by advancing equitable alternative education and stakeholder collaboration. Its sustainability impact encompasses educational, socio-economic, community, institutional, and policy dimensions by providing evidence for strengthening teacher support, learner engagement, program management, and sustainable ALS delivery.

Keywords: Alternative Learning System, Coping Mechanisms, Learner Engagement, Pedagogical Practices, Professional Development, Self-Efficacy, Sustainability

1. Introduction

Quality education requires learner-centered teaching that develops critical thinking, sustains academic interest, and creates supportive learning environments that encourage engagement. These requirements are particularly important in the Philippine Alternative Learning System (ALS), where teachers serve learners whose educational participation is often constrained by geographical, economic, personal, and family circumstances. Following the

Covid-19 pandemic, ALS implementation has required mobile teachers to reach remote and far-flung communities, sometimes traveling for hours or days across difficult terrain (Salcedo, 2023). Within the Bohol Division, declining Junior High School ALS participation has intensified concerns about learner engagement and program continuity. Learners frequently prioritize livelihood and family needs over regular attendance, while irregular participation may also affect teachers' confidence and instructional effectiveness. Arpilleda (2018) noted that irregular attendance and inconsistent academic engagement affected teachers' self-efficacy, with almost 20% of Junior High School enrollees in the First Congressional District of Bohol dropping out because livelihood demands and absenteeism competed with schooling. Against this context, the study assesses teachers' self-efficacy and pedagogical practices in content and instruction, utilization of learning resources, social interaction, and monitoring and evaluation; learners' behavioral, emotional, and cognitive engagement; and the challenges and coping mechanisms of Junior High School ALS teachers in Bohol Division during School Year 2025–2026. It further examines the relationships of teachers' self-efficacy and pedagogical practices with learner engagement and uses the findings as the basis for a proposed action plan.

Teachers' self-efficacy is central to instructional effectiveness because confidence in professional capabilities can influence teaching strategies, responses to challenges, and learner engagement. Teachers with strong self-efficacy generally demonstrate greater job satisfaction, experience less work-related stress, and manage learner behavior more effectively (Barni et al., 2019). Self-efficacy is likewise closely associated with pedagogical practices and broader understandings of teaching effectiveness (Tolentino et al., 2023). For ALS teachers, self-efficacy and pedagogical practices are examined through content and instruction, utilization of learning resources, social interaction, and monitoring and evaluation. Content and instruction involve teachers' understanding of their academic discipline and how disciplinary knowledge develops (Luft, 2020). Deep and flexible understanding of subject matter enables teachers to connect concepts, address misconceptions, relate learning to everyday experiences, and promote critical thinking (University of Iowa, 2022). Evidence from ALS implementers in Laguna also indicates high instructional competence, particularly in communication skills, alongside high self-efficacy (Saron, 2023). Confidence in managing professional responsibilities contributes to pedagogical development and the effective use of learning resources (Orakcı et al., 2023). Teachers' self-efficacy is consequently an important determinant of professional growth and confidence in applying instructional tools (Alibakhshi et al., 2020). Teachers with stronger self-efficacy are also more likely to use differentiated instruction, suggesting that professional development can strengthen instructional practices by increasing teacher confidence (Kalinowski et al., 2024). Learning content can assume multiple forms and purposes, while instruction may be individualized according to differences in learners' needs and learning styles (Cagle (n. d.); Feder (2023). However, limited classrooms, inadequate internet connectivity, and insufficient teacher training can constrain quality ALS instruction (Magatines and Flores, 2024). Learning resources—including materials, tools, applications, programs, and technologies—support the development of learners' required knowledge, skills, and attitudes (Becker, 2024). In ALS settings, these may include books, journals, handouts, and online resources that support teacher development and pedagogical competence (Ross, 2023). Research in Central Philippines similarly found high teacher self-efficacy and practice in using updated learning resources, although difficulties remained because of inadequate teacher training (Tachado and Tumarong, 2024). Social interaction is another essential component of teachers' self-efficacy and pedagogical practice. Teachers' confidence in interacting with learners contributes to educational quality, learner outcomes, and teacher well-being (Vatou et al., 2022). Contemporary learning emphasizes reciprocal interaction rather than one-way knowledge transmission, requiring ALS teachers to promote communication and supportive learning environments (Teacher Institute, 2024). Teachers with strong social interaction self-efficacy can establish conducive environments that support behavioral, social, and emotional learning (Foster, 2022). Social interaction also enables teachers and learners to collaborate toward educational goals (Rummel, 2025) and facilitates cooperative learning through shared tasks and common objectives (Singh, 2021). In the Philippine ALS context, poor interaction with the learning environment, together with family, peer, and financial difficulties, has been associated with learner discontinuation (Alvarez Jr., 2024). Monitoring and evaluation further support program quality and teacher development. Feedback from evaluation can strengthen teachers' capacity to assess and improve their performance (Krasniqia and Ismajlib, 2022). ALS implementers in Bulacan-Norzagaray East District demonstrated high self-efficacy in improving learner knowledge, facilitating teaching and learning, assessing learning, implementing the ALS curriculum, and conducting monitoring and evaluation (Castillo, 2021). Likewise, ALS implementation across Central Luzon demonstrated appropriate leadership, classroom management, technical training, resource allocation, and monitoring and evaluation (Victoria, 2024). Beyond teacher performance, monitoring and evaluation provide systematic evidence about program progress, learner needs, facilities, and learning resources for informed decision-making (Maksud, 2023). Evidence-based monitoring promotes accountability and supports improvement toward educational objectives (Kibuacha, 2022). An ALS informal education initiative in Bukidnon was similarly evaluated positively in relation to its monitoring and evaluation activities, indicating effective program implementation (Caingcoy et al., 2021).

Learner engagement is fundamental to educational participation, persistence, and achievement. High engagement is associated with academic success because engaged learners invest effort and energy, demonstrate dedication,

sustain attention, and pursue learning goals (Fuertes et al., 2023). Conversely, low engagement is associated with absenteeism, dropout, delinquency, and other adverse educational outcomes (Sutton, 2022). Engaged learners are also more likely to demonstrate positive attitudes toward school and stronger academic achievement (Pennsylvania Department of Education, 2023). Academic engagement is influenced by learner characteristics, teachers, instructional methodologies, peers, and cognitive, metacognitive, affective, social, task-related, and communicative factors (Amerstorfer and von Munster-Kistner, 2021). In this study, learner engagement is considered through behavioral, emotional, and cognitive dimensions. Behavioral engagement concerns observable participation, including attendance, effort, active involvement, and interaction with teachers, peers, and learning content (Hamidani et al., 2023). Evidence suggests that behavioral engagement can positively affect achievement even in subjects where learners demonstrate declining interest or negative behavior (Hidayat et al., 2019). The importance of curricula that strengthen behavioral engagement has likewise been emphasized for learners in formal and alternative education settings (Maamin et al., 2021). Emotional engagement reflects learners' evolving emotional relationship with academic tasks and the school environment. It can change over time as learners' expectations and needs interact with educational demands, and it may decline as learners progress from elementary to secondary education (Gutman and Schoon, 2018). Teacher emotional support can positively influence performance and is associated with learners' emotional engagement (Yang et al., 2021). Academic and emotional support may also reduce stress while strengthening positive feelings and interest in learning, emphasizing collaboration among educators and families (Wijaya et al., 2022). Cognitive engagement refers to learners' psychological investment in understanding and applying knowledge, persisting through challenges, developing critical thinking, completing assignments, and interacting actively with teachers (Tran and Nagirikandalage, 2025). Digital communication alone may not guarantee such engagement; limited participation in virtual discussions has been associated with weak critical-thinking and problem-solving engagement (Muharom et al., 2022). Within Philippine ALS, high academic engagement has been associated with motivation and the use of cognitive strategies such as visualization and memorization (Idulsa Jr. and Luzano, 2024). The relationships among teacher self-efficacy, pedagogical practices, and learner engagement are therefore central to the present study. International evidence indicates that self-efficacy and pedagogical content knowledge may have only a weak relationship in some contexts, suggesting that both dimensions require attention in teacher development (Novikasari, 2024). Conversely, research at the secondary level found that teachers with greater self-efficacy demonstrated stronger capacity to engage learners and manage classrooms (Khalid and Akther, 2021). In culturally diverse settings, consistent foundational practices, designed pedagogical practices, and dynamic support practices have also contributed to high learner engagement (Anyichie, 2023). Within Philippine ALS settings, positive teacher–learner relationships have been characterized by mutual respect, trust, understanding, and shared efforts toward educational goals (Pimienta-Mendoza, 2024). Instructional strategies and learner engagement have also demonstrated significant relationships, with positive learner behavior associated with both instructional quality and engagement (Yasoña, 2023). These findings provide a basis for examining whether comparable relationships exist among Junior High School ALS teachers and learners in Bohol Division.

The Philippine ALS provides flexible, responsive, equitable, and learner-centered educational opportunities for out-of-school youth and adults who cannot participate in formal schooling (Mahinay and Manla, 2025). Its objectives include developing literacy, numeracy, functional competencies, and life skills among learners unable to attend conventional schools (Chalk & Bai, 2021). The Philippines began implementing ALS in 2004, while Republic Act No. 11510, or the Alternative Learning System Act, was signed on December 23, 2020 to strengthen support for the learning needs of out-of-school children in special cases, adults, and indigenous peoples (Parrocha, 2021). During School Year 2021–2022, approximately 472,869 learners were enrolled nationwide, while ALS-Senior High School implementation had expanded to public and private schools across multiple regions (Cabrera, 2022). Despite this expansion, implementation remains uneven. In Urdaneta City, ALS teachers encountered learner tardiness and absenteeism, instructional difficulties, unpredictable examination content, limited equipment, distracting environments, and inadequate computer knowledge (Campilla & Lopez, 2019). Nationally, financial constraints, employment demands, lack of interest, vices, marriage, and bullying have contributed to dropout, while enrollment remains substantially below the estimated population of potential ALS learners (EDCOM 2, 2024). Similar socioeconomic challenges continue to affect learner persistence (EDCOM 2, 2024). Regional and local studies reinforce these concerns. In Iloilo, generally positive literacy and accreditation outcomes coexisted with differences in program implementation among municipalities (Libo-on & Catunao, 2024). In Cotabato, inadequate funding, facilities and materials, learner absenteeism, difficulties integrating competencies, and challenges in differentiated instruction affected ALS implementation (Flores, 2022). In Cebu Province, socioeconomic, personal, and family circumstances substantially influenced ALS graduates' educational motivations and challenges, indicating a need for localized support systems (Vismanos et al., 2024). At the local level, the declining number of Junior High School ALS learners in Bohol and the previously documented dropout problem in its First Congressional District demonstrate the continuing importance of examining teacher and learner factors within the division. These conditions position Bohol within wider national and international concerns regarding equitable educational participation, instructional quality, teacher capacity, and learner engagement.

The study is anchored in Social Cognitive Theory, the Pedagogical Content Knowledge Framework, and Self-Determination Theory. Social Cognitive Theory explains behavior through interactions among personal factors, behavior, and environmental influences and emphasizes that individuals learn and perform more effectively when they believe in their capabilities (Bandura, 1986). Bandura's framework consequently supports the study's examination of teacher self-efficacy because teachers' confidence and instructional behaviors can interact with the learning environment and learner participation (Nickerson et al., 2025). The Pedagogical Content Knowledge Framework emphasizes the integration of subject-matter knowledge and pedagogical strategies as essential components of effective teaching (Shulman, 1987). Rather than treating content and pedagogy as separate domains, the framework conceptualizes them as integrated knowledge concerning what is taught and how it is made understandable to learners (Shing et al., 2015). Teachers therefore require pedagogical representations, instructional strategies, awareness of learners' prior knowledge, and understanding of learning difficulties to transform content into comprehensible learning experiences (Deng, 2018). Self-Determination Theory explains learner motivation and engagement through intrinsic and extrinsic motivational processes and the fulfillment of needs related to independence, competence, and interpersonal connection (Deci & Ryan, 1985). Learners become more engaged when these needs are supported (Ackerman & Neuhaus, 2018). The theory therefore complements the study's focus on how supportive pedagogical practices and teacher-learner relationships may sustain behavioral, emotional, and cognitive engagement. The study is also supported by Philippine educational law and policy. Article XIV, Section 2 of the 1987 Philippine Constitution establishes State responsibility for maintaining an adequate and integrated educational system and recognizes non-formal, informal, indigenous, self-learning, independent, and out-of-school educational programs responsive to community needs (Official Gazette, 1987). Republic Act No. 11510 institutionalizes ALS and affirms accessible quality education while emphasizing human development, social progress, and the reduction of inequalities (Arellano Law Foundation, 2020). DepEd Order No. 13, s. 2019 further provides guidelines for implementing the enhanced ALS and coordinating its management among national, regional, division, and program-level stakeholders (Department of Education, 2019). These policies support the harmonized implementation of the enhanced ALS Basic Education Curriculum and the broader goal of universal functional literacy (De La Salle University, 2021). Together, these theoretical and legal foundations frame teachers' self-efficacy and pedagogical practices as important components of educational delivery, learner engagement as a multidimensional outcome, and ALS as an institutional mechanism for expanding equitable educational opportunities.

Although ALS expands educational access, its implementation continues to face structural, instructional, socioeconomic, and learner-related challenges. These include inadequate resources and facilities, limited training, absenteeism, employment demands, financial difficulties, family responsibilities, and uneven learner participation. Such conditions can affect both teachers' instructional experiences and learners' capacity to remain engaged. Teacher coping mechanisms are therefore important to sustained ALS implementation. ALS teachers have used positive outlooks and collegial collaboration to manage instructional demands and provide appropriately differentiated support to learners (Francisco and Buri, 2024). Training in ALS pedagogy, increased face-to-face teacher-learner interaction, and clearer assessment policies have likewise been used to address implementation difficulties and strengthen engagement (Paez, 2024). ALS teachers in Panabo City have responded to limited resources and mixed emotional experiences through persistence, commitment to teaching, learner inspiration, and collaboration (Alviso and Tacadena, 2023). Other recommended approaches include active and positive coping, flexibility, support groups, acceptance, commitment to personal growth, and emotional motivation (Baraquia, 2022). Despite existing research, the literature presents varied findings across geographical and institutional contexts. Some studies report strong teacher self-efficacy, pedagogical competence, program implementation, and learner engagement, whereas others document resource deficiencies, inadequate training, absenteeism, weak engagement, and socioeconomic barriers. Moreover, social interaction self-efficacy remains comparatively underexplored despite its importance to teacher-learner relationships and educational outcomes. A context-specific gap therefore remains concerning how teachers' self-efficacy and pedagogical practices relate to behavioral, emotional, and cognitive learner engagement among Junior High School ALS participants in Bohol Division. There is also a need to understand how teachers' reported challenges and coping mechanisms help explain quantitative patterns in self-efficacy, pedagogical practices, and engagement. Addressing these interconnected dimensions allows the study to integrate teacher capability, instructional behavior, learner participation, implementation challenges, and coping responses within a single investigation. Accordingly, the study assesses teachers' self-efficacy and pedagogical practices in content and instruction, utilization of learning resources, social interaction, and monitoring and evaluation; determines learners' behavioral, emotional, and cognitive engagement; examines the relationships between teacher variables and learner engagement; identifies implementation challenges and coping mechanisms; and integrates qualitative and quantitative findings. The resulting evidence serves as the basis for a proposed action plan intended to strengthen ALS implementation in Bohol Division.

The study is most directly aligned with SDG 4 – Quality Education because ALS provides educational opportunities to out-of-school youth and adults who cannot participate consistently in formal schooling. Its focus on teacher self-efficacy, pedagogical practices, learning resources, social interaction, monitoring and evaluation,

and learner engagement supports the broader pursuit of accessible, equitable, inclusive, and effective education. This alignment is particularly relevant because ALS is intended to reach learners whose socioeconomic circumstances, livelihood responsibilities, geographic conditions, and other barriers may otherwise restrict educational participation. The study also relates to SDG 8 – Decent Work and Economic Growth through the educational circumstances of ALS learners. The literature indicates that livelihood demands frequently compete with educational participation, making the relationship between learning and socioeconomic opportunity especially relevant to ALS. Strengthening learner engagement and educational completion can support the development of knowledge and competencies needed for continued personal and socioeconomic advancement. A further connection exists with SDG 10 – Reduced Inequalities, as ALS addresses disparities in educational access among out-of-school youth, adults, indigenous peoples, and other learners who may not be adequately served by conventional schooling. The legal and policy foundations of ALS emphasize accessible education, human development, social progress, and reduced inequalities. Examining the effectiveness of teaching and learner engagement within this system therefore contributes to understanding how alternative education can more equitably respond to diverse learner circumstances. Finally, SDG 17 – Partnerships for the Goals is relevant at the institutional level because effective ALS implementation depends on coordination among the Department of Education, its central and field offices, program implementers, communities, and other stakeholders. The study's proposed action plan can provide context-specific evidence to support coordinated improvements in ALS implementation.

The study primarily contributes to educational, socio-economic, community, institutional, and policy sustainability. Its educational sustainability relevance lies in examining teacher capacities and pedagogical practices needed to maintain meaningful learning opportunities beyond conventional school settings. Understanding how self-efficacy, instructional practices, learning resources, social interaction, and monitoring and evaluation relate to learner engagement can support more responsive and sustainable ALS delivery. From a socio-economic perspective, the study addresses an educational population whose participation is frequently affected by employment, financial limitations, and family responsibilities. Sustaining educational opportunities for these learners is important because access to learning, functional competencies, and Junior High School completion may strengthen their capacity to pursue further educational and socioeconomic opportunities. The study also supports community sustainability by focusing on an educational system designed to reach learners in diverse and sometimes geographically difficult settings. ALS mobile teachers connect educational services with communities that may have limited access to conventional schooling, making teacher capability, resilience, and effective instructional practice essential to maintaining educational participation. At the institutional and policy levels, evidence on teachers' self-efficacy, pedagogical practices, learner engagement, challenges, and coping mechanisms can assist the Department of Education and the Bureau of Alternative Education in identifying areas for program improvement. The proposed action plan provides a mechanism for translating empirical findings into context-specific responses that may strengthen teacher support, instructional implementation, learner engagement, and program management. Taken together, these dimensions demonstrate the multidisciplinary significance of the study. By integrating educational psychology, pedagogy, educational management, socioeconomic realities, community-based learning, and institutional policy, the research addresses the sustainability of an alternative educational pathway intended to provide equitable learning opportunities to populations outside the conventional school system.

2. Material and methods

2.1 Research Design

The study employed a convergent-parallel mixed-methods research design in which quantitative and qualitative data were collected simultaneously. The quantitative component assessed ALS teachers' self-efficacy and pedagogical practices and learners' engagement, while the qualitative component explored teachers' challenges and coping mechanisms. A descriptive-correlational design was incorporated to determine the relationships among teachers' self-efficacy, pedagogical practices, and learners' engagement. Quantitative and qualitative data were analyzed separately and subsequently compared and integrated to generate comprehensive conclusions.

2.2 Locale of the Study

The study was conducted in the Division of Bohol, which comprises three congressional districts, 47 municipalities, and 56 school districts. Fifteen school districts distributed across the three congressional districts were included. The First Congressional District was represented by Maribojoc, Antequera, Cortes, Balilihan, and Corella; the Second Congressional District by Sagbayan, Clarin, Inabanga-North, Inabanga-South, and San Isidro; and the Third Congressional District by Batuan, Bilar, Carmen, Pilar, and Sierra-Bullones. Bohol Division was selected because of its strategic significance, accessibility of relevant data, opportunities for collaboration with the local education workforce, and capacity to provide diverse perspectives on ALS implementation.

2.3 Respondents of the Study

The study involved Junior High School ALS teachers and learners from the 15 selected school districts. The quantitative component included 30 ALS teachers and 590 Junior High School ALS learners. Of the 30 teachers, 10 also participated in one-on-one informal interviews for the qualitative component. The teacher survey respondents were equally distributed across the three congressional districts, with 10 teachers from each district. The learner respondents consisted of 150 from the First Congressional District, 195 from the Second Congressional District, and 245 from the Third Congressional District. For the qualitative component, three teachers were selected from the First Congressional District, three from the Second, and four from the Third.

2.4 Sample and Sampling Procedure

Cluster sampling was used to select 15 school districts from the geographically extensive and diverse Bohol Division. This technique enabled efficient data collection from representative district clusters while accommodating the dispersed nature of the study population. Within the selected districts, total enumeration was employed for the teacher and learner survey respondents, involving all ALS teachers and learners within the identified population to provide comprehensive data and minimize sampling error. For the qualitative component, 10 of the 30 ALS teachers were selected proportionally from the three congressional districts. Selection considered their teaching experience, engagement in ALS activities, willingness to participate, instructional strategies, and exposure to diverse learner populations. This approach was intended to obtain varied and in-depth perspectives on ALS implementation while maintaining a manageable qualitative sample.

2.5 Research Instrument

Quantitative data were gathered using survey questionnaires. Teachers' self-efficacy was measured using 20 affirmative items adapted from Tachado and Tumarong (2024), covering content and instruction, utilization of learning resources, social interaction, and monitoring and evaluation. Responses were measured using a 4-Point Scale. To maintain conceptual consistency between perceived capabilities and actual teaching behaviors, the same constructs and source were used for the 20-item questionnaire assessing teachers' pedagogical practices. Learners' engagement was assessed across behavioral, emotional, and cognitive dimensions, with five affirmative statements for each dimension. The researcher modified five item indicators from the original survey instrument developed by Delfino (2019). Learner responses were also measured using a 4-Point Scale. The researcher and dissertation adviser collaborated in establishing the validity of the questionnaires. The instruments were pilot-tested in selected ALS centers in the First Congressional District of Bohol. Reliability testing yielded a maximum reliability score of 0.976 and a minimum Cronbach's Alpha score of 0.915. The dissertation adviser and other field experts were also consulted to establish the face validity of the survey and interview instruments. For qualitative data, semi-structured interview guide questions were used to explore the challenges experienced by ALS teachers in program implementation and the coping mechanisms they employed to remain committed and competent program implementers. The interviews provided descriptive accounts that contextualized the quantitative findings and enabled comparison and integration of the two forms of evidence.

2.6 Data Gathering Procedure

Prior to data collection, a letter of intent was submitted to the University President of Bohol Island State University System and the Office of the Schools Division Superintendent of Bohol to obtain permission to conduct the study in the 15 selected school districts. Informed Consent Forms were provided to teachers and ALS learners aged 18 years and above, while Assent Forms were provided to learners below 18 years old. Quantitative data were collected through online and printed questionnaires to promote accessibility and participation. Online questionnaires were administered through Google Forms to facilitate secure data collection, real-time compilation of responses, and reduced data-entry errors. For the qualitative component, one-on-one in-depth interviews were conducted with selected ALS teachers regarding the challenges they encountered and the coping mechanisms they employed. Participants were allowed to describe their experiences freely. Interview responses were transcribed and subjected to thematic analysis, while member checking was undertaken to establish the accuracy and credibility of the qualitative information. Survey responses were tabulated and checked for accuracy before statistical analysis. Interview responses were transcribed and organized into themes and codes. Incomplete or unreturned questionnaires were excluded from tabulation and analysis, and participants who failed to respond within the specified timeframe were likewise excluded.

2.7 Data Analysis Techniques

Quantitative data were analyzed using weighted mean and Spearman's Rank Correlation Coefficient (Spearman's Rho). Weighted mean was used to determine the levels of ALS teachers' self-efficacy and learners' engagement and the extent of teachers' pedagogical practices. Teachers' self-efficacy was interpreted using a 4-Point Scale: scores from 3.50–4.00 indicated Very High Self-Efficacy or very confident; 2.50–3.49 indicated High Self-Efficacy or confident; 1.50–2.49 indicated Low Self-Efficacy or less confident; and 1.00–1.49 indicated Very Low Self-Efficacy or not confident. Teachers' pedagogical practices used the same numerical ranges, interpreted respectively as Extensively Practiced or practiced at all times, Highly Practiced or practiced most of the times, Fairly Practiced or practiced at times, and Not Practiced or not practiced at all. Learners' engagement was similarly interpreted as Actively Engaged or engaged at all times for 3.50–4.00, Moderately Engaged or engaged most of

the times for 2.50–3.49, Less Engaged or engaged at times for 1.50–2.49, and Not Engaged or not engaged at all for 1.00–1.49. Spearman's Rank Correlation Coefficient (Spearman's Rho) was used to determine the relationships among the quantitative variables of teachers' self-efficacy, pedagogical practices, and learners' engagement. Qualitative interview responses concerning ALS teachers' challenges and coping mechanisms were analyzed using thematic analysis, as outlined by Braun and Clarke (2006). The analysis involved familiarization with the data through repeated reading and note-taking, generation of initial codes, organization of related codes into potential themes, review and refinement of themes, definition and naming of themes, and preparation of a detailed interpretation connecting the themes with the research questions and related literature. Quantitative and qualitative findings were subsequently integrated to identify areas of convergence and provide a more comprehensive interpretation of ALS teachers' pedagogical practices, coping mechanisms, learner engagement, and implementation challenges.

2.8 Ethical Considerations

Ethical safeguards were observed throughout data collection. Participants were informed of the study's purpose, the voluntary nature of their participation, and their right to withdraw at any time. Informed consent was obtained before participation, while assent procedures were applied to ALS learners below 18 years old. Participant responses were anonymized and stored securely on password-protected devices in accordance with ethical standards and data privacy regulations. These procedures were implemented to protect confidentiality while maintaining the integrity and quality of the collected data.

3. Results and Discussion

3.1 Teachers' Self-Efficacy of ALS Teachers

3.1.1 Content and Instruction

The results showed that ALS teachers demonstrated a high level of self-efficacy in content and instruction, with an overall composite mean of 3.35. Teachers expressed the strongest confidence in their extensive knowledge of subject content, while motivating learners to understand lessons through teaching skills received the lowest rating, although it remained within the high self-efficacy level. The findings indicate that ALS teachers possess strong confidence in delivering instruction and achieving learning objectives despite the limitations of the ALS setting. However, engaging learners remains challenging because face-to-face instruction is conducted only once a week, requiring teachers to maximize limited classroom interaction. These findings support Saron (2023), who reported that ALS implementers demonstrated positive self-belief and instructional competence.

3.1.2 Utilization of Learning Resources

ALS teachers also demonstrated a high level of self-efficacy in utilizing learning resources, with a composite mean of 3.33. The highest confidence was in promoting collaborative learning through classroom activities, while modifying difficult activities without compromising competencies received the lowest rating. The findings suggest that teachers are confident in using available learning resources and collaborative strategies to support instruction. Nevertheless, adapting instructional activities remains difficult because ALS teachers simultaneously handle learners from different educational levels. The results affirm Orakcı et al. (2023), who emphasized that teachers with high self-efficacy effectively utilize learning resources to improve instruction and learner engagement.

3.1.3 Social Interaction

Teachers reported a high level of self-efficacy in social interaction, with a composite mean of 3.33. The highest confidence was in discovering and promoting ALS success stories, while gaining the support of the entire community received the lowest rating. The results indicate that ALS teachers are confident in building relationships with learners, colleagues, and stakeholders, but community involvement remains challenging because of limited awareness and misconceptions about ALS, particularly in remote communities. These findings support Foster (2022), who emphasized that teachers with high social interaction self-efficacy foster positive learning environments and stronger community collaboration.

3.1.4 Monitoring and Evaluation

Among the four domains, monitoring and evaluation obtained the highest self-efficacy rating, with a composite mean of 3.39. Teachers were most confident in helping learners demonstrate their learning, while confidence in using various assessment tools received the lowest rating. The findings suggest that ALS teachers prioritize learner-centered assessment and monitoring practices. However, limited assessment tools and the annual Accreditation and Equivalency Test reduce opportunities for diverse classroom assessments. The results are consistent with Victoria (2024), who found that effective monitoring and evaluation contributed to successful ALS implementation.

3.1.5 Overall Teachers' Self-Efficacy

Overall, ALS teachers demonstrated a high level of self-efficacy across all four domains, with an overall composite mean of 3.35. Monitoring and evaluation received the highest average rating, while utilization of learning resources and social interaction shared the lowest composite mean, although both remained within the high self-efficacy category. The findings reflect a proactive and confident ALS teaching workforce capable of performing instructional responsibilities despite contextual challenges. This overall result supports Castillo (2021), whose study likewise found very high self-efficacy among ALS implementers.

3.2 Teachers' Pedagogical Practices

3.2.1 Content and Instruction

The results revealed that teachers' pedagogical practices in content and instruction were highly practiced, with a composite mean of 3.30. Demonstrating mastery of subject content received the highest rating, while clearly articulating learning objectives before instruction received the lowest rating. The findings indicate that ALS teachers consistently demonstrate effective instructional practices and adapt lessons to learners' needs. However, irregular learner attendance often requires teachers to revisit previous lessons before introducing new content. These findings support Feder (2023), who emphasized individualized instruction for diverse learners.

3.2.2 Utilization of Learning Resources

Teachers' pedagogical practices in utilizing learning resources were highly practiced, with a composite mean of 3.36. Using engaging instructional materials for diverse learners received the highest rating, while leveraging technology for instructional delivery received the lowest rating. The results show that ALS teachers creatively use instructional materials to support learning despite technological limitations. Poor internet connectivity and weather-related transportation challenges limit the use of laptops and online instructional resources. The findings support Tachado and Tumarong (2024), who reported high pedagogical practices in utilizing updated learning resources.

3.2.3 Social Interaction

Social interaction recorded the highest pedagogical practice rating, with a composite mean of 3.40. Participation in mapping activities for out-of-school youth and adults was the most practiced activity, while participation in virtual meetings among ALS teachers received the lowest rating. The findings indicate that ALS teachers actively engage communities and collaborate with stakeholders in identifying potential learners. However, unstable internet connectivity limits participation in online collaboration and professional communication. Alvarez Jr. (2024) presented contrasting findings, showing that poor interaction contributed to learner disengagement in other ALS settings.

3.2.4 Monitoring and Evaluation

Monitoring and evaluation practices were highly practiced, with a composite mean of 3.33. Keeping accurate learner records received the highest rating, while using various assessment tools received the lowest rating. The findings demonstrate teachers' commitment to monitoring learner progress and providing timely feedback. Nevertheless, limited face-to-face instruction reduces opportunities for diverse formative assessments. These findings support Caingcoy et al. (2021), who reported effective monitoring and evaluation among ALS implementers.

3.2.5 Overall Teachers' Pedagogical Practices

Overall, teachers' pedagogical practices were highly practiced across all four domains, with an overall composite mean of 3.35. Social interaction received the highest rating, while content and instruction received the lowest composite mean. The findings indicate consistency between teachers' confidence and their instructional practices. Effective pedagogical practices contribute to equitable and quality education in ALS, supporting Chalk & Bai (2021).

3.3 Learners' Engagement in the Alternative Learning System

3.3.1 Behavioral Engagement

Learners demonstrated moderate behavioral engagement, with a composite mean of 3.18. Asking respectful questions during lessons received the highest rating, while studying lessons in advance to assist classmates received the lowest rating. The findings suggest that learners participate actively during face-to-face sessions but often struggle to prepare beforehand because of work responsibilities, family obligations, and childcare responsibilities. These findings align with Hidayat et al. (2019), who emphasized that behavioral engagement positively influences academic achievement.

3.3.2 Emotional Engagement

Learners also exhibited moderate emotional engagement, with a composite mean of 3.18. Respectful interaction with teachers received the highest rating, while confidence in learning every topic received the lowest rating. The results indicate that learners value supportive relationships with teachers but continue to experience emotional

barriers related to low motivation, limited family support, and negative perceptions about their learning abilities. Yang et al. (2021) similarly highlighted the importance of teachers' emotional support in improving learner engagement and performance.

3.3.3 Cognitive Engagement

Cognitive engagement was also moderately engaged, with a composite mean of 3.20. Consulting teachers to clarify important lessons received the highest rating, while participating in group chats for academic discussions received the lowest rating. The findings suggest that learners rely on teachers for academic clarification but participate less in online collaborative discussions because of unstable internet connectivity and competing interests. These findings support Muharom et al. (2022), who reported limited engagement in virtual learning discussions.

3.3.4 Overall Learners' Engagement

Overall, Junior High School ALS learners demonstrated a moderate level of engagement, with an overall composite mean of 3.19 across behavioral, emotional, and cognitive dimensions. The findings indicate balanced but moderate engagement among ALS learners and suggest the need for interventions that strengthen behavioral participation, emotional motivation, and cognitive involvement. Sutton (2022) and Amerstorfer and von Munster-Kistner (2021) emphasized that stronger engagement contributes to motivation, participation, and academic success.

3.4 Relationship Between Teachers' Self-Efficacy, Pedagogical Practices, and Learners' Engagement

3.4.1 Teachers' Self-Efficacy and Learners' Engagement

The correlation analysis revealed no significant relationship between teachers' self-efficacy and learners' engagement, with a p-value of .741. The null hypothesis was therefore not rejected. The findings suggest that teachers' confidence alone does not directly determine learner engagement in the ALS context. Other factors, including socioeconomic conditions, learner motivation, community involvement, and resource availability, may exert stronger influence. This result contradicts Khalid and Akther (2021), who found a significant relationship between teacher self-efficacy and learner engagement.

3.4.2 Teachers' Pedagogical Practices and Learners' Engagement

The analysis also showed no significant relationship between teachers' pedagogical practices and learners' engagement, with a p-value of .753. The null hypothesis was likewise not rejected. The findings indicate that variations in pedagogical practices did not significantly influence learner engagement in this study. External factors beyond instructional practices may explain learner participation and engagement in ALS. This result contradicts Yasoña (2023), who reported a significant relationship between instructional strategies and learner engagement.

3.5 Challenges Encountered by ALS Teachers

The qualitative findings identified three major themes describing the challenges experienced by ALS teachers: Resource Accessibility and Continuous Development, Adequate Funding and Logistical Support, and Addressing Learner Motivation, Dropout Causes, and Communication Barriers. Teachers reported limited learning resources, insufficient professional development opportunities, inadequate funding for home visits, shortages of trained ALS teachers, learner absenteeism, low motivation, dropout, and weak family communication. These findings show that ALS implementation is influenced by both institutional and socioeconomic barriers. Resource limitations affect instructional delivery, while learner motivation and family circumstances contribute to absenteeism and dropout. The findings support Flores (2022), Vismanos et al. (2024), and the 2024 EDCOM 2, which identified funding constraints, family-related factors, financial hardship, work commitments, and other socioeconomic challenges as major barriers to ALS participation.

3.6 Coping Mechanisms Employed by ALS Teachers

The qualitative findings revealed three major coping themes: Enhancing Support Systems Through Collaboration, Promoting Resilience and Mental Well-Being, and Motivation and Emotional Support. Teachers addressed challenges through collaboration with colleagues, communication with families, rapport-building with learners, stress-management practices, home visits, and emotional support strategies that encouraged learner retention. These findings demonstrate that ALS teachers rely on collaboration, resilience, and personalized support to sustain program implementation despite limited resources and demanding working conditions. The findings align with Francisco and Buri (2024), Alviso and Tacadena (2023), and Baraquia (2022), who emphasized collegial collaboration, positive coping, family engagement, personal growth, and emotional support as effective strategies for ALS teachers.

3.7 Integration of Quantitative and Qualitative Findings

The integration of quantitative and qualitative findings showed convergence between teachers' pedagogical practices and their coping mechanisms, as well as between learners' engagement and the challenges encountered

during ALS implementation. High pedagogical practice ratings were reinforced by qualitative evidence of collaboration, adaptive teaching, rapport-building, and home visits, while moderate learner engagement corresponded with reported challenges involving absenteeism, low motivation, limited resources, and communication barriers. The integrated findings demonstrate harmony between the quantitative and qualitative evidence, indicating that ALS teachers consistently employ learner-centered strategies despite contextual constraints. However, learner engagement remains moderated by socioeconomic and environmental challenges that extend beyond classroom instruction. These findings are supported by Paez (2024) and the 2024 EDCOM 2, which emphasized the importance of teacher training, increased teacher–learner interaction, assessment policies, and targeted interventions to strengthen ALS implementation and learner participation.

4. Conclusion & Recommendations

ALS teachers demonstrated strong self-efficacy and competent pedagogical practices in content and instruction, utilization of learning resources, social interaction, and monitoring and evaluation, while Junior High School ALS learners exhibited moderate behavioral, emotional, and cognitive engagement. Teachers' self-efficacy and pedagogical practices were not significantly related to learners' engagement, indicating that teacher confidence and instructional competence alone did not directly influence learner participation. The qualitative findings further identified limited learning resources and professional development, inadequate funding and logistical support, learner absenteeism and dropout, low motivation, and communication barriers as major challenges. Despite these conditions, teachers sustained program implementation through collaboration, resilience, open communication, personalized support, and motivational strategies. Overall, the findings indicate that improving ALS outcomes requires addressing resource gaps, strengthening learner motivation, and sustaining teachers' professional development.

The Bureau of Alternative Education and the Department of Education may strengthen continuous professional development through training, workshops, peer mentoring, and opportunities for teachers to share effective practices while improving access to instructional materials and technological resources. Coordination with local government units, the private sector, community stakeholders, and volunteers may provide additional instructional and logistical support. ALS teachers may participate in professional development on updated teaching methods, assessment, and technology, engage in peer observation and feedback, establish mentoring support for learners, and conduct community-based activities that reinforce the relevance of ALS education. Learners are encouraged to participate actively in learning activities and use flexible learning options to maintain engagement despite competing responsibilities. Further studies may also examine the interplay among teachers' self-efficacy, pedagogical practices, and learners' engagement within the ALS program.

The study was confined to the ALS Program of the Bohol Division during the school year 2025–2026 and involved 30 ALS teachers and 590 Junior High School ALS learners, with qualitative information obtained from selected teacher participants. Its quantitative analysis focused specifically on teachers' self-efficacy, pedagogical practices, and learners' engagement, while the qualitative component examined teachers' challenges and coping mechanisms. Accordingly, the findings reflect the participants, variables, and ALS context covered by the study and provide a basis for further investigation of the relationships among teacher-related factors and learner engagement.

5. Compliance with ethical standards

The author conducted the study in accordance with appropriate ethical standards and data privacy regulations. Prior to data collection, the author obtained permission from the appropriate institutional and educational authorities. Participants were informed of the study's purpose, the voluntary nature of their participation, and their right to withdraw at any time. The author obtained informed consent from teachers and ALS learners aged 18 years and above, while assent procedures were applied to learners below 18 years old. Participant responses were anonymized and securely stored on password-protected devices to maintain confidentiality, protect participant privacy, and preserve the integrity of the collected data.

REFERENCES

- Ackerman, C. E., & Neuhaus, M. (2018, July 7). Self-determination theory and how it explains motivation. <https://positivepsychology.com/self-determination-theory/>
- Alibakhshi, S., Moradkhannejad, R., & Kian, T. (2020). The role of self-efficacy in teachers' professional development: A review. *Journal of Educational Psychology*, 15(3), 45–60.
- Alvarez Jr., A. V. (2024, June). Second chances: Exploring the Philippine Alternative Learning System. <https://dergipark.org.tr/tr/download/article-file/3764>
- Alviso, V. J. Q., & Tacadena, J. E. (2023). Revealing the lived experiences of alternative learning system (ALS) volunteer-teacher in the new normal: An inquiry. Vol. 03, No. 05, Aug-Sep 2023. <http://journal.hmjournals.com/index.php/JLEP>
- Amerstorfer, C. M., & von Munster-Kistner, C. F. (2021, October 28). Student perceptions of academic engagement and student-teacher relationships in problem-based learning. <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.713057/full>
- Anyichie, A. C., Butler, D. L., & Nashon, S. M. (2023). Exploring teacher practices for enhancing student engagement in culturally diverse classrooms. *Journal of Pedagogical Research*, 7(5). <https://doi.org/10.33902/JPR.202322739>
- Arellano Law Foundation. (2020). Republic Act No. 11510. https://lawphil.net/statutes/repacts/ra2020/ra_11510_2020.html
- Arpilleda, J. M. (2018, September). Problems encountered by mobile teachers assigned in Tandag City Division, Surigao del Sur: A case study. <https://media.neliti.com/media/publications/265267>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Baraquia, L. (2022). Teachers' coping strategies with the challenges in the Department of Education: A phenomenological study. *SSRN Electronic Journal*, 2(1), 69–80. <https://doi.org/10.2139/ssrn.4504013>
- Barni, D., Danioni, F., & Benevene, P. (2019, July 12). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Educational Psychology Review*. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2019.01645/full>
- Becker, M. (2024, January 23). What exactly is learning resource development? <https://skillbuilderlearning.co/blog/what-exactly-is-learning-resource-development>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cabrera, R. (2022, March 6). Over 4 million students enrolled in ALS–DepEd. <https://www.philstar.com/>
- Cagle, B. (n.d.). 6 types of educational content for teaching and learning. <https://nytilicensing.com/latest/methods/6-types-educational-content-teaching-and-learning/>
- Caingcoy, M. E., Pacursa, J., & Adajar, M. I. W. (2021, August). Effectiveness of the alternative learning system informal education project and the transfer of life skills among ALS teachers: A case study. <https://www.researchgate.net/publication/354222597>
- Campilla, M. E., & Lopez, F. B. (2019, November 17). Challenges in the implementation of alternative learning system. <https://www.dpublication.com/wp-content/uploads/2019/11/37-ICTLE.pdf>
- Castillo, S. M. F. (2021). The relationship of competencies and teaching strategies of Alternative Learning System (ALS) implementers on students' achievement of selected district in the Division of Bulacan. Polytechnic University of the Philippines, DepEd-Division of Bulacan-Norzaragay East District. <https://www.ijams-bbp.net/wp-content/uploads/2021/07/SHIELA-MARIE-F.-CASTILLO.pdf>
- Chalk, B., & Bai, N. (2021). Educational challenges in the Philippines. <https://pids.gov.ph/details/news/in-the-news/educational-challenges-in-the-philippines>
- De La Salle University. (2021, May 27). How can we improve alternative learning in the Philippines? <https://www.dlsu.edu.ph/how-can-we-improve-alternative-learning-in-the-philippines/>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum Press.
- Deng, Z. (2018). Pedagogical content knowledge reconceived: Bringing curriculum thinking into the conversation on teachers' content knowledge. *Teaching and Teacher Education*, 72, 155–164.
- Department of Education. (2019). DepEd Order No. 13, s. 2019. <https://www.deped.gov.ph/>
- EDCOM 2. (2024, August 2). More than 3 years in, alternative learning system faces financing, completion woes. <https://edcom2.gov.ph/more-than-3-years-in-alternative-learning-system-faces-financing-completion-woes/>
- Feder, M. (2023, January 15). What is curriculum and instruction in education? <https://www.phoenix.edu/articles/education/curriculum-and-instruction-in-education.html>
- Flores, R. D. (2022). Problems encountered by alternative learning system (ALS) teachers in Cotabato Division: Basis for a strategic plan. *International Journal of Open-Access, Interdisciplinary & New Educational Discoveries of ETCOR Educational*.
- Foster, S. (2022). Classroom management for learning. <https://www.colorado.edu/center/teachinglearning/2022/02/07/classroom-management-learning>
- Francisco, J. P., & Buri, C. C. (2024). The lived experiences of alternative learning system teachers in English literacy instruction. <https://ejournals.ph/article.php?id=24450>

- Fuertes, H. G., Evangelista, I. A., Marcellones, I. J. Y., et al. (2023). Student engagement, academic motivation, and academic performance of intermediate level students. *International Journal of Novel Research in Education and Learning*, 10(3), 133–149. <http://www.noveltyjournals.com>
- Gutman, L. M., & Schoon, I. (2018). Emotional engagement, educational aspirations, and their association during secondary school. <https://www.researchgate.net/publication/325996962>
- Hamidani, K., Neo, T.-K., & Perumal, V. (2023). Conceptual framework to elicit behavioral engagement via project based experiential learning. *Advances in Social Science, Education and Humanities Research*. https://doi.org/10.2991/978-2-494069-57-2_7
- Hidayat, D., Kim, T., Listiani, T., & Setianingsih, A. R. (2019). Adolescence student behavioral engagement in mathematics class. *JPI (Jurnal Pendidikan Indonesia)*, 8(2), 244. <https://doi.org/10.23887/jpi-undiksha.v8i2.16927> <https://ejournal.undiksha.ac.id>
- Idulsa Jr., F. L., & Luzano, R. (2024). Students' motivation and academic engagement in alternative learning system. *International Journal of Multidisciplinary Research and Analysis*, 7(3), 1019–1032. <https://doi.org/10.47191/ijmra/v7-i03-21> <https://www.researchgate.net/publication/378949596>
- Kalinowski, E., Westphal, A., Jurczok, A., & Vock, M. (2024). The essential role of teacher self-efficacy and enthusiasm for differentiated instruction. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2024.104663>
- Khalid, S., & Akhter, M. (2021). Effect of teachers' self-efficacy and instructional strategies on students' engagement at secondary school level. *Global Educational Studies Review*, VI(IV), 24–33. [https://doi.org/10.31703/gesr.2021\(VI-IV\).03](https://doi.org/10.31703/gesr.2021(VI-IV).03)
- Kibuacha, F. (2022, July 2021). The role of monitoring, evaluation and learning. <https://www.geopoll.com/blog/monitoring-evaluation-learning-role/>
- Krasniqia, D., & Ismajlib, H. (2022). Teacher evaluation feedback and their self-efficacy in classroom management skills. <https://files.eric.ed.gov/fulltext/EJ1377537.pdf>
- Libo-on, J. T., & Catunao, J. D. (2024). Empowering literacy: A comprehensive study of alternative learning system (ALS) implementation in the 4th Congressional District of Iloilo, Philippines. *Asia Pacific Journal of Social and Behavioral Sciences*, 22. <https://doi.org/10.57200/apjsbs.v22i0.400>
- Luft, J. (2020, March 23). Subject matter knowledge is important. <https://cadrek12.org/resources/blogs/subject-matter-knowledge-important>
- Maamin, M., Maat, S. M., & Iksan, Z. H. (2021, December 23). The influence of student engagement on mathematical achievement among secondary school students. <https://www.mdpi.com/2227-7390/10/1/41>
- Magatines, G. L., & Flores, G. T. (2024). A study of challenges in delivering instruction, learning resources, and student attitudes: The case of ALS program. *International Journal of Scientific and Research Publications*, 14(5). ISSN 2250-3153.
- Mahinay, R. B. D., & Manla, E. C. (2025, February 10). Qualitative insights on the implementation of the alternative learning system in the Philippines. <https://www.ejedu.org/index.php/ejedu/article/view/896>
- Maksud, H. (2023, May 17). Introduction to monitoring and evaluation. <https://www.linkedin.com/pulse/introduction-monitoring-evaluation-maksud-hasan-pmd-pro>
- Muharom, F., Nugroho, A., Ramadhan, H., et al. (2022). A WhatsApp-based flipped classroom model: Effect on students' higher order thinking skill. <https://www.researchgate.net/publication/370683054>
- Nickerson, C., McLeod, S., & Guy-Evans, O. (2025, March 31). Albert Bandura's Social Cognitive Theory. <https://www.simplypsychology.org/social-cognitive-theory.html>
- Novikasari, I., Azis, D. K., & Elebiary, N. (2024). The correlation between self-efficacy levels and pedagogical content knowledge among Madrasah Ibtidaiyah teachers. *Mudarrisa: Jurnal Kajian Pendidikan Islam*, 2. <https://doi.org/10.18326/mudarrisa.v16i2.2088>
- Official Gazette. (1987). The Constitution of the Republic of the Philippines. <https://www.officialgazette.gov.ph>
- Orakcı, S., Yüreğilli Göksu, D., & Karagöz, S. (2023). A mixed methods study of the teachers' self-efficacy views and their ability to improve self-efficacy beliefs during teaching. *Frontiers in Psychology*, 13, Article 1035829. <https://doi.org/10.3389/fpsyg.2022.1035829>
- Paez, A. (2024). The implementation of senior high school alternative learning system: Basis for a proposed professional development plan for teachers. *JPAIR Multidisciplinary Research*, 57(1). <https://doi.org/10.7719/jpair.v57i1.895>
- Parrocha, A. (2021, January 5). Alternative learning system institutionalized. <https://www.gov.ph/>
- Pennsylvania Department of Education. (2023). Academic engagement and support. <https://www.education.pa.gov/Schools/safeschools/SchoolClimate/SCIP/ActionPlanning/Pages/AcademicEngagement.aspx>
- Pimienta-Mendoza, D. J. (2024). Untold stories of teachers and graduates of Alternative Learning Systems. *Journal of Interdisciplinary Perspectives*, 2(7). DOI: <https://ejournals.ph/article.php?id=23938>
- Ross, C. (2023, August 9). What are learning resources for teachers? How are they helpful? <https://www.teachingenglish.org.uk/professional-development/teacher-educators/knowning-subject/articles/what-are-learning-resources>
- Rummel, R. J. (2025). Social behavior and interaction. <https://hawaii.edu/powerkills/TCH.CHAP9.HTM>

- Salcedo, E. G. (2023, January 6, 2023). Challenges of an alternative learning system teacher. <https://deped-ne.net.ph/>
- Saron, J. (2023). Profiling, instructional competence and teaching performance of alternative learning system implementers. DOI: 10.13140/RG.2.2.10461.59361
- Shing, C. L., Saat, R. M., & Loke, S. H. (2015). The knowledge of teaching – Pedagogical Content Knowledge (PCK). *The Malaysian Journal of Educational Science*. <https://files.eric.ed.gov/fulltext/EJ1085915.pdf>
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Singh, P. K. (2021, April 11). Impact of social interaction on students' learning. <https://www.bweduction.com/article/impact-of-social-interaction-on-students-learning-472368>
- Sutton, E. (2022, January 19). Student engagement: Why it's important and how to promote it. <https://www.branchingminds.com/blog/student-egagement-remote-in-person>
- Tachado, B. B., & Tumarong, M. S. (2024). Teachers' self-efficacy, practices, and difficulties in alternative learning system (ALS). *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE)*. DOI: <https://risjournals.org>
- Teacher Institute. (2024). Enhancing learning through interpersonal relationships in educational organizations. <https://teachers.institute/organisational-behaviour/>
- Tolentino, A. B., Cruz, E. C., & Ablaza, G. M. T. (2023). Self-efficacy, interest, and effort indicators in the teaching motivation of public senior high school teachers in the Philippines. *Journal of Education and Teaching Research*, 12(3), 45–60. <https://www.researchgate.net/publication/374478936>
- Tran, T. T., & Nagirikandalage, P. (2025). Insights into enhancing student engagement: A practical application of blended learning. *The International Journal of Management Education*. DOI: 10.1016/j.ijme.2025.101167
- University of Iowa. (2022). Teacher's in-depth content knowledge. <https://intime.uni.edu/teachers-depth-content-knowledge>
- Vatou, A., Gregoriadis, A., Tsigilis, N., & Grammatikopoulos, V. (2022). Teachers' social self-efficacy: Development and validation of a new scale. *Educational Psychology*, 42(8), 1008–1024. <https://doi.org/10.1080/01443410.2022.2093492>
- Victoria, J. V. (2024, September 2). A study on the implementation of alternative learning system among public schools in Region 3, Philippines. <https://rsisinternational.org/journals/ijrsi/articles/>
- Vismanos, S. P., Misa, C. L., Serban, T. R., et al. (2024). The opportunities and challenges in pursuit of higher education among alternative learning system graduates. *International Journal of Multidisciplinary Research and Growth Evaluation*. DOI: <https://www.allmultidisciplinaryjournal.com>
- Wijaya, T. T., Rahmadi, I. F., Chotimah, H., et al. (2022). A case study of factors that affect secondary school mathematics achievement: Teacher-parent support, stress levels, and students' well-being. *International Journal of Environmental Research and Public Health*, 19(23), 16247. <https://doi.org/10.3390/ijerph192316247>
- Yang, Y., Li, G., Su, Z., & Yuan, Y. (2021). Teacher's emotional support and math performance: The chain mediating effect of academic self-efficacy and math behavioral engagement. *Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.651608>
- Yasoña, D. D. (2023). Alternative learning system program: A teaching process to learners' engagement and behavior. <https://ijrp.org.file.permission>