A Study of Technology, Pedagogy, and Content Knowledge among ALIVE Teachers

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ABSTRACT

This study investigated the levels of technology, pedagogy, and content knowledge among Arabic Language and Islamic Values Education (ALIVE) teachers using a descriptive–correlational research design. Data were gathered through a validated self-assessment questionnaire grounded in the TPACK framework. Descriptive statistics were used to determine teachers' knowledge levels across the three domains.

Results showed that ALIVE teachers demonstrated a very satisfactory level of knowledge in technology, pedagogy, and content. While strong content mastery and pedagogical competence were evident, lower ratings were observed in engagement with professional development activities and experimentation with new technologies. The findings highlight the need for sustained institutional support and continuous professional development to strengthen instructional innovation in ALIVE education.

Keywords: ALIVE teachers, TPACK, technology, pedagogy, content knowledge

INTRODUCTION

The caliber of a nation's educational system is inextricably linked to the dedication, pedagogical mastery, and professional passion of its teaching force. Teachers serve as the primary architects of student development, where their performance standards directly dictate the academic and moral trajectory of the learners they serve. In this context, performance evaluation is not merely an administrative requirement; it is a multifaceted instrument for continuous improvement, ensuring that educators—particularly those in specialized fields like Arabic—can navigate the complex social and cultural shifts of the modern era (Darling-Hammond, 2017).

The Arabic Language and Islamic Values Education (ALIVE) program has become a cornerstone of the Philippine educational landscape, specifically designed to provide Muslim learners with a curriculum that honors their cultural identity and moral formation (DepEd, 2011; Asum & Abarquez, 2024). While the Department of Education (DepEd) institutionalized this through various mandates, such as DepEd Order No. 51, s. 2004, the actual efficacy of the program rests entirely upon the facilitators: the ALIVE teachers. These educators are tasked with the unique responsibility of bridging standard national competencies with religious and linguistic instruction, serving as the key facilitators of a program intended to foster cultural identity and inclusive education (Marasigan, 2019; DepEd, 2017).

The motivation to analyze ALIVE teacher performance in this context arises from the crucial role these educators play in shaping both academic and values-based learning. Teacher effectiveness has consistently been linked to student achievement and positive learning outcomes across all disciplines (Darling-Hammond, 2017). Despite the foundational importance of the ALIVE program, a significant research void persists regarding the actual performance and pedagogical realities of the teachers. While mainstream Filipino education is heavily researched, ALIVE educators remain on the periphery of academic inquiry (Ismail & Manaros, 2021). Current literature is often preoccupied with broad policy frameworks or curriculum design, leaving a critical blind spot in our understanding of how these teachers navigate the classroom daily. Furthermore, while global benchmarks like the Technological Pedagogical Content Knowledge (TPACK) framework are used to evaluate modern teaching, there is almost no empirical data on how these frameworks intersect with the cultural and religious nuances of ALIVE instruction.

There is a profound lack of evidence-based insight into how ALIVE teachers in localized contexts, such as Lanao del Norte, reconcile limited institutional support with the high stakes of moral and academic formation. This study seeks to bridge this empirical gap by systematically examining the performance of ALIVE teachers in Lanao del Norte, taking into account both pedagogical competencies and the specific contextual factors influencing their instruction. By moving beyond policy theory and into the realm of actual pedagogical practice, this research addresses the "how" of ALIVE instruction to provide a basis for targeted interventions and professional growth.

The implementation of the ALIVE program in the Philippines has been a key initiative to preserve and promote Islamic education, particularly in Muslim-majority regions like Marawi City and Lanao del Norte. Solaiman (2020) explores the perceptions of ALIVE teachers regarding the program's implementation, highlighting both the opportunities and challenges faced by educators in delivering this unique curriculum. The study reveals that ALIVE teachers generally perceive the program as essential in shaping students' religious identity, linguistic competence, and moral values, which are deeply integrated into both the Arabic language and Islamic teachings. According to Solaiman (2020), the teachers view the program as tool for fostering cultural preservation and providing students with a deeper understanding of their faith, while also contributing to academic achievement in language learning.

This research further emphasizes that the success of such cultural preservation is dependent on the teacher's ability to integrate modern pedagogical theories with traditional content. Global studies emphasize frameworks such as Cognitive Theory, Behaviorism, and Constructivism in evaluating teacher performance (Mishra & Koehler, 2006).

This study seeks to provide empirical insights that can optimize teacher effectiveness and improve the quality of learning experiences for students. This is in line with the Department of Education's efforts to institutionalize and strengthen ALIVE subject in all public and private basic education schools outside the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). These efforts uphold the right of Muslim Filipinos to quality education enshrined in the "Education for All" provision of the 1987 Philippine Constitution, within the context of their cultures, customs, traditions, interests, and beliefs. By bridging the research gap, this study ensures that ALIVE program is not just a policy on paper, but a high-performing reality in the classroom.

This study is anchored on Cognitive Theory, Behaviorism Theory, and Constructivism Theory, which together provide a comprehensive framework for analyzing the performance of ALIVE teachers in teaching Arabic Language and Islamic Values Education. Cognitive Theory, developed by Jean Piaget, a Swiss psychologist known for his work on cognitive development, and later expanded by Jerome Bruner, who emphasized discovery learning, focuses on mental processes such as thinking, understanding, and memory. In this study, Cognitive Theory is applied to examine how ALIVE teachers plan lessons, organize content, and employ instructional strategies that promote learners' comprehension of Arabic language structures and Islamic concepts. Behaviorism Theory, introduced by John B. Watson and further advanced by B.F. Skinner, both pioneers in experimental psychology, emphasizes observable behavior and the role of reinforcement in learning. This theory is used in the study in analyzing how ALIVE teachers manage classroom behavior, provide feedback, and use repetition and reinforcement to support correct language use, memorization, and discipline in learning Islamic values. Constructivism Theory, strongly associated with Lev Vygotsky, a Russian psychologist known for his sociocultural theory of learning, views learning as an active and socially mediated process. In this study, Constructivism Theory is applied in examining how ALIVE teachers facilitate learner-centered activities, encourage interaction, and connect Arabic Language and Islamic Values instruction to learners' real-life experiences and cultural contexts. Through integration of these theories, the study provides a solid theoretical foundation for identifying performance gaps and proposing targeted interventions to enhance ALIVE teachers' instructional effectiveness.

METHODOLOGY

This study employed a descriptive–correlational research design to determine the level of Arabic Language and Islamic Values Education (ALIVE) teachers' knowledge of technology, pedagogy, and content. The descriptive

component established baseline information on teachers' demographic characteristics and their levels of knowledge in the three core TPACK domains, while the correlational component examined the relationships between teachers' knowledge and selected variables such as age, years of teaching experience, and educational background.

Data were gathered from ALIVE teachers using a validated self-assessment questionnaire that measured their technological knowledge, pedagogical knowledge, and content knowledge. The instrument utilized a Likert-type scale and was subjected to validity and reliability testing prior to administration. Relevant demographic information was also collected to support the correlational analysis.

Descriptive statistics were used to determine the levels of teachers' knowledge in each domain, while correlational analysis was applied to identify significant relationships between the three TPACK domains and the selected teacher-related variables. Ethical considerations, including informed consent, confidentiality, and voluntary participation, were strictly observed throughout the study.

The respondents consisted of 30 high school active ALIVE (Arabic Language and Islamic Values Education) teachers deployed in the Division of Lanao del Norte for the school year 2024–2025. These teachers were officially recognized and assigned by the Department of Education to teach Arabic language and Islamic values education in public secondary schools across the division. They were purposely chosen based on their active teaching status and ongoing classroom engagement under the ALIVE program.

DISCUSSION

The findings of the study indicate that ALIVE teachers demonstrate a very satisfactory level of content knowledge, with a high degree of confidence in teaching Arabic Language and Islamic Values Education. The high overall mean score suggests that teachers possess strong mastery of subject matter, which is essential for effective instruction. In particular, the highest-rated indicator reflecting teachers' self-confidence highlights their readiness and preparedness in delivering ALIVE lessons. This result aligns with Shulman's (1986) theory of pedagogical content knowledge, which emphasizes that deep subject mastery enhances teaching effectiveness. Similarly, Bandura's (1997) concept of self-efficacy supports the notion that confident teachers are more capable of managing classroom challenges and facilitating meaningful learning experiences. However, the comparatively lower score related to awareness of conferences and professional events indicates limited engagement in external professional development. This finding echoes the assertions of Villegas-Reimers (2003) and Darling-Hammond (2017), who stressed that continuous professional learning through seminars and academic forums is vital for sustaining instructional quality and keeping teachers abreast of emerging trends, particularly in specialized fields such as Arabic and Islamic education.

In terms of pedagogical knowledge, ALIVE teachers exhibited a consistently very satisfactory level across all indicators, suggesting strong competence in instructional strategies, assessment practices, and classroom management. The highest rating on adaptability to diverse learners underscores teachers' ability to modify instruction based on students' needs and levels of understanding, reflecting principles of differentiated instruction as advanced by Tomlinson (2014). The overall results support Shulman's (1987) view that effective teaching relies on the teacher's capacity to transform subject matter into accessible and meaningful learning experiences. Although classroom management and addressing student misconceptions received relatively lower mean scores, they remained within the very satisfactory range, indicating acceptable yet improvable areas. As noted by Emmer and Evertson (2016), these pedagogical skills develop through continuous practice and reflective teaching. The findings imply that ALIVE teachers are pedagogically well-prepared, but targeted professional development could further enhance their ability to address learner misconceptions and manage diverse classroom dynamics.

Regarding technological knowledge, the results reveal that ALIVE teachers generally possess a very satisfactory level of competence in using and managing technology. Their ability to troubleshoot basic technical problems and learn new technologies suggests foundational digital readiness, which is essential in contemporary educational settings. These findings are consistent with Mishra and Koehler's (2006) TPACK framework, which identifies technological knowledge as a crucial component of effective teaching. However,

the lower mean score related to experimenting with new technologies indicates limited exploration and innovation in technology use. This observation aligns with Teo's (2013) findings that teachers' attitudes and confidence significantly influence their willingness to adopt and experiment with digital tools. Studies in Islamic and Arabic education contexts (Al-Hadabi & Al-Mahrooqi, 2021) similarly note that while teachers may possess basic technological skills, continuous training is needed to maximize technology's instructional potential. Overall, the findings suggest that while ALIVE teachers are technologically capable, structured and hands-on professional development programs are necessary to encourage experimentation, innovation, and deeper integration of technology in teaching Arabic Language and Islamic Values Education.

CONCLUSION

This study concludes that Arabic Language and Islamic Values Education (ALIVE) teachers demonstrate a very satisfactory level of knowledge in technology, pedagogy, and content, indicating strong overall instructional readiness. The findings reveal that teachers possess solid subject matter mastery and high confidence in teaching ALIVE subjects, which are essential for effective lesson delivery and positive learning outcomes. Their strong pedagogical knowledge further reflects their ability to adapt instruction, apply appropriate assessment strategies, and manage classrooms effectively, thereby supporting meaningful and inclusive learning experiences.

Despite these strengths, the study also identifies areas that require improvement, particularly in continuous professional development and technological exploration. Limited engagement in academic conferences, seminars, and experimentation with emerging technologies suggests the need for sustained institutional support and structured training opportunities. Enhancing teachers' exposure to professional learning networks and hands-on technological training can further strengthen instructional innovation and adaptability.

Overall, the results underscore the importance of investing in ongoing professional development programs that reinforce teachers' technological skills, pedagogical practices, and content expertise. By supporting lifelong learning and professional growth among ALIVE teachers, educational authorities and school administrators can contribute to the continuous improvement of Arabic Language and Islamic Values Education, ensuring its relevance, effectiveness, and alignment with the demands of contemporary education.

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