

## Parental Involvement and Digital Competence as Predictors of Academic Commitment

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### ABSTRACT

*This research aims to examine the connection of parental involvement and digital competence in educational setting and how they are influenced by academic commitment. The objectives of this study are to evaluate the levels of parental involvement, digital competence, and academic commitment, and identify the major links and intervening effects among these variables. Descriptive-correlational design is employed in this study and targeted a total of three hundred (300) respondents. The researcher used a stratified random sampling technique using Slovin's formula to get the ideal sample size targeting 18 years old and above senior high school students in three public secondary schools in Loreto, Agusan del Sur. In person meetings are used to administer questionnaires to ensure reliability of the data. Data was analyzed using descriptive and inferential statistics. The study's results indicated that there were high levels of parental involvement, digital competence and academic commitment. Parental Involvement had a significant relationship with academic commitment, also digital competence had a significant relationship with academic commitment. Furthermore, this means that parental involvement and digital competence predicts academic commitment as indicated by the correlation analysis. The study implies that the combination of high parental involvement and proficient digital competence in teaching forms a supportive framework that significantly boosts students' academic commitment. Therefore, the study indicates that collaborative effort between parents and educators a conducive learning environment. Parents should provide encouragement, model positive behaviors, and attend school meetings; teachers should undergo professional development in digital literacy.*

### KEYWORDS

*parental involvement; digital competence; academic commitment; encouragement; digital technologies; ethical use of technologies*

### INTRODUCTION

Students' academic commitment faces numerous challenges that can impede its development and sustainability (Estrada et al., 2021). According to Human-Vogel and Rabe (2015), students' academic commitment level is categorized in terms of satisfaction, quality of alternatives, investment, meaningfulness, and level of commitment. Academic commitment is often linked to the extent of integration into the academic community, both socially and academically. Factors such as supportive peer relationships and active participation in educational activities are essential for maintaining commitment for students, where challenges are most pronounced (Griep, 2021). One core issue is the engagement

problem, where students may not perceive the relevance or value of their schoolwork, leading to disengagement and a lack of commitment to academic goals (Wong et al., 2022).

Academic commitment serves as a crucial mediator between educational inputs, such as parental involvement and teachers' digital competence, and students' academic success (De Silva, 2022). Parental involvement, which includes encouragement, modeling, reinforcement, and instruction, plays a vital role in shaping students' motivation, resilience, and persistence in learning (Castro et al., 2015). When parents actively engage in their child's education, students tend to develop stronger academic commitment, better study habits, and higher self-efficacy (Fan & Williams, 2018). Moreover, Grolnick et al. (2022) found that students whose parents provide consistent guidance and academic reinforcement exhibit higher levels of engagement and perseverance in their studies. However, disparities in parental involvement due to socioeconomic and educational barriers can affect students' ability to maintain long-term academic commitment (Wilder, 2014). Fatimaningrum (2022) and Utami (2022) emphasize that fostering a collaborative relationship between schools and parents strengthens students' commitment by ensuring they receive both academic support at home and motivation from educators.

Similarly, teachers' digital competence has become increasingly important in fostering students' academic engagement and learning motivation. The ability of educators to integrate digital tools, select effective learning resources, and utilize digital assessments significantly enhances students' commitment to learning (Montilla et al., 2023). Farjon et al. (2019) highlight that teachers proficient in digital competence create engaging, technology-driven learning environments that promote student participation and self-regulation. Furthermore, San-Martin et al. (2020) found that digitally competent teachers encourage active learning, problem-solving, and sustained academic interest among students. Research by Kaur & Sharma (2022) suggests that students exposed to digitally competent educators demonstrate higher motivation, improved problem-solving skills, and greater adaptability to modern learning methods. Additionally, McMahan et al. (2019) emphasize that interactive, technology-enhanced learning environments foster student commitment by providing personalized instruction and accessibility to educational content. When both parental involvement and teachers' digital competence are present, students benefit from a supportive academic framework that enhances their commitment, engagement, and long-term educational success.

In the meantime, there was a correlation between parental involvement and academic commitment. Parental involvement is a multifaceted construct whose definition and scope can vary significantly across different cultural, socioeconomic, and educational contexts. Disparities in interpreting what constitutes involvement—be it direct academic support, emotional encouragement, or cognitive stimulation at home—pose challenges in developing a standardized measurement (Williams-Johnson & Rickert, (2024). According to Noble et al. (2020), family income also plays a critical role. Students from underprivileged backgrounds may have to contend with additional responsibilities, such as part-time work or caring for family members, which can limit the time and energy they can invest in their studies. Moreover, they might lack access to educational resources, including textbooks, tutoring, and extracurricular opportunities, all of which are vital for fostering a strong academic commitment. Parental involvement in education has been a focal point of research for decades, with a consistent theme underscoring its positive influence on student achievement. It encompasses a range of activities, from providing a supportive home environment to direct engagement with school activities.

In addition, teachers' digital competence, another predictor in focus, is subject to variability due to individual differences in training, exposure, and attitudes toward

technology (Farjon et al., 2019). This variability could affect the quality of digital integration into pedagogy and subsequently influence students' academic commitment (San-Martin et al., 2020).

The rapid pace of technological change further compounds this issue, as it continuously reshapes the educational landscape, potentially rendering previous competence models obsolete (Tuome et al., 2023). Digital competence has surfaced as a vital educational consideration, especially considering the digital revolution (Nunez-Canal et al., 2023). Digital competence extends beyond mere technical skills, encompassing a broader set of abilities that enable teachers to use digital technologies critically, collaboratively, and creatively. It is particularly pertinent given the integration of digital tools in educational curricula and the emphasis on preparing students for a digitized workplace (Brown et al., 2020).

Champagne (2022) postulates that parental involvement is motivated by parental involvement of the students in terms of encouragement, modeling, reinforcement, and instruction. This model helps to understand the mechanisms through which parental involvement can be optimized to benefit student outcomes. Empirical studies have indicated that when parents are actively involved, students exhibit higher academic achievement, better school attendance, and an increased likelihood of undertaking higher education and students' academic commitment (Gu et al., 2022).

Digital competence includes various components such as the learning-teaching process, selecting and using digital resources, assessment, digital technologies, and ethical use of technologies (Ergül & Tasar, 2023). Research has demonstrated that teachers' digital competence is positively associated with their students' academic motivation and performance, suggesting that it is crucial in enabling effective learning experiences (Montilla et al., 2023).

The research of (Karbach et al., 2013), (Martín-Criado et al., 2021), and (Viray, 2016), all highlighted the importance on digital literacy in predicting academic outcomes that established a strong correlation among parental involvement, digital competence, and students' academic commitment. while integrating technology.

While there is substantial evidence supporting the positive impact of parental involvement and digital competence on academic commitment, several research gaps remain. First, existing studies primarily focus on general parental involvement, with less attention given to the specific role of digital literacy in enhancing parental support. This gap suggests a need for future research that explores how parents' digital skills directly influence their ability to assist with technology-driven educational tasks (Martín-Criado et al., 2021). Second, much of the research has focused on early adolescence or primary education, leaving a lack of longitudinal studies that examine the long-term effects of parental involvement and digital competence across different educational stages (Viray, 2016). Additionally, there is limited understanding of the cultural and socio-economic factors that may moderate the effectiveness of these predictors, which could lead to a one-size-fits-all approach in educational interventions. Addressing these gaps can provide a more nuanced understanding of how different forms of parental involvement and digital competence interact to support diverse student populations (Karbach et al., 2013).

The significance of the study lies in its potential to influence educational policy and practice within the local context. By determining the relative impact of parental engagement and digital literacy on students' academic behavior, stakeholders in the educational sector can develop targeted interventions to enhance student learning and performance. For Loreto, Agusan del Sur, the findings could inform tailored strategies

supporting parental participation in education and bolster students' digital skills, ensuring they succeed in an increasingly digital world. The study's outcomes could also offer a blueprint for other regions with similar cultural and socioeconomic profiles, contributing to broader educational reform and advancement.

A significant gap in the literature is the dearth of comparative studies that bridge these diverse settings. Investigating how parental involvement and digital competence influence academic commitment across various educational environments can reveal universal principles and context-specific dynamics (Aagaard & Lund, 2019). For instance, cultural norms in Loreto, Agusan del Sur might shape parental involvement differently than in other regions, affecting students' academic commitment. By extending the scope of research to include a variety of settings, especially underrepresented ones, more tailored and effective educational strategies could be devised.

Moreover, the research recognizes the nuanced nature of parental involvement, which is often treated as a monolithic concept (Kiyama & Harper, 2018). Current studies may not sufficiently differentiate between the types of parental involvement—such as academic assistance at home, intellectual stimulation, or communication with educators—and how each uniquely contributes to students' academic engagement and success. This study aims to dissect these variations to determine which aspects of parental involvement are most closely linked to enhancing academic commitment in the context of Loreto, Agusan del Sur. By identifying the specific behaviors and practices that correlate with positive academic outcomes, educators and policymakers can foster more targeted interventions to engage parents and caregivers in their children's education, ultimately supporting the students' academic journeys. The main objective of the study is to investigate the extent to which parental involvement and digital competence predict academic commitment among students in Loreto, Agusan del Sur. This research aims to identify actionable factors that can significantly affect students' dedication and engagement with their academic tasks, potentially leading to improved educational outcomes.

The urgency for the Department of Education in Loreto, Agusan del Sur, to examine the influence of parental involvement and digital competence on academic commitment is underscored by the need to adapt to a rapidly evolving educational paradigm. As digital literacy becomes increasingly critical, understanding its role alongside parental engagement in a student's academic life is essential for formulating responsive educational strategies. This study is vital for guiding policy decisions, prioritizing resource allocation, and enhancing student preparedness for future challenges in a region like Loreto, with its unique cultural and socioeconomic landscape. The insights gained could lead to targeted initiatives that bolster academic commitment, potentially narrowing educational disparities and aligning learning environments with the community's specific needs and technological advancements. In the pursuit of understanding the predictors of academic commitment among students in Loreto and Agusan del Sur schools, the study acknowledged that existing research may be confined to specific educational systems or cultural contexts.

This study was anchored on three theories: Epstein's Theory of Overlapping Spheres of Influence (Epstein, 1995), the Technology Acceptance Model (Davis, 1989), and the Self-Determination Theory (Deci & Ryan, 1985). Epstein's Theory of Overlapping Spheres of Influence (Epstein, 1995): Epstein's theory suggests that children learn best when there is a strong partnership between schools, families, and community. The theory identifies types of parental involvement such as parental encouragement, modeling, reinforcement, and instruction- each contributing to the child's academic success. Parental involvement is a key factor in this model, and it can be categorized as follows: Epstein's model suggests that when

these types of involvement are effectively integrated with school and community efforts, they can lead to better student educational outcomes.

The model also recognized that different family structures, cultures, and economic backgrounds will influence how these forms of involvement manifest. The Technology Acceptance Model (TAM) (Davis, 1989) is useful for understanding digital competence. It suggests that perceived ease of use and perceived usefulness are fundamental determinants of user acceptance and usage behavior regarding new technologies. The Technology Acceptance Model (TAM), proposed by Fred Davis in 1989, is a theoretical model that explains how users come to accept and use a technology. According to TAM, two main factors influence the adoption of technology: perceived usefulness and perceived ease of use.

The reported diminished predictive utility of the investment model in non-interpersonal contexts (Le & Agnew, 2003) suggests factors other than satisfaction, alternatives, and investment may predict commitment. In academic contexts, the most prominent theoretical frameworks that explain why students fail to attain educational outcomes include self-regulation (Bjork, Dunlosky, & Kornell, 2013) and student engagement (Finn & Zimmer, 2012). Self-regulation theories typically emphasized goal-oriented aspects of behaviour, while student engagement frameworks focus on the behavioral indicators associated with academic achievement such as time spent on tasks and quality of effort. It is useful to briefly consider commitment in relation to self-regulation, especially because we assume that people regulate their behavior within the constraints of the commitments they have made (Human-Vogel, 2008, 2013).

The original Hoover-Dempsey and Sandler model of the parental involvement process (1995, 1997), explores parental involvement by investigating the mechanisms of influence parents will engage in when they are involved. This model was established in traditional learning environments. These mechanisms that constitute the psychological antecedents of activities and behaviors engaged in by involved parents (Hoover-Dempsey & Sandler, 2005) were utilized “by parents during involvement activities that likely account for involvement’s influence on student outcomes” (Hoover-Dempsey & Sandler, 2005, p. 8); these mechanisms include parental encouragement, parental modeling, parental reinforcement, and parental instruction. Self-Determination Theory (Deci & Ryan, 1985) posits that student motivation and engagement are contingent upon fulfilling three basic psychological needs: autonomy, competence, and relatedness. Self-determination theory is a framework for studying human commitment, motivation, and personality, which involves people’s inherent growth tendencies and innate psychological needs. Each of these theories provides a unique lens through which to view the study’s constructs. Epstein’s theory directly links to parental involvement, the Self-Determination Theory offers insight into the psychological mechanisms behind academic commitment, and the Technology Acceptance Model helps explain how and why digital competence might influence students’ engagement with their academic work. Together, they form a robust theoretical framework for investigating how parental involvement and digital competence may predict academic commitment.

The independent variable of the study is parental involvement (Liu et al. 2010) with the following indicators: parental encouragement, parental modelling, parental reinforcement, and parental instruction. Parental encouragement refers to parents’ action that motivate a support their child’s learning and Parental modelling refers to parents serving as role models in valuing education and lifelong learning. Parental reinforcement pertains to the parents’ use of positive reinforcement techniques to reward achievements or behaviors and Parental Instruction refers to direct educational support such as helping with homework and providing resources for learning.

Further, another independent variable of the study is digital competence (Ergul and Tasar 2023) with the following indicators: learning-teaching process, selecting and using digital resources, assessment, digital technologies and ethical use of technologies. Learning-teaching process refers to the ability of teachers to integrate digital tools effectively into their instructional methods. Selecting and using digital resources refers to teachers' skills in choosing appropriate digital materials and utilizing them to support learning outcomes. Assessment refers to using digital tools to create, conduct, and provide feedback on students' assessment. Digital technologies refer to the practical ability of teachers to use various digital devices and software in the classroom. Ethical use of technologies refers to the teachers' adherence to ethical standards in using technology.

Meanwhile, the dependent variable is academic commitment (Human-Vogel and Rabe 2015) with the following indicators: satisfaction, quality of alternatives, investment, meaningfulness, and level of commitment. Satisfaction refers to perceived value of education, and overall happiness with their academic life. Quality of alternatives refers to students' perception of other activities or paths they could pursue outside their academic commitment. Investment refers to the amount of time, effort, and resources that students dedicate to their educational activities. Meaningfulness refers to the degree to which students' find their academic work to be significant and worthwhile. Level of commitment can be viewed as the degree of students' dedication to completing their education and their persistence in facing challenges.

The conceptual framework of this study, illustrating the relationship between parental involvement and teachers' digital competence as independent variables influencing students' academic commitment as the dependent variable. Parental involvement plays a crucial role in shaping students' motivation and engagement by providing support at home, maintaining communication with teachers, and actively participating in school-related activities. When parents are highly involved in their child's education, students tend to exhibit greater motivation, better study habits, and higher academic performance. Meanwhile, teachers' digital competence refers to their ability to effectively integrate technology and digital tools into instruction, which enhances learning accessibility, engagement, and academic interactions. A digitally competent teacher can foster a more interactive and adaptive learning environment, ensuring that students remain actively committed to their studies.

## **RESEARCH METHODS**

### ***Research Respondents***

This study targeted senior high school students from three selected public secondary schools in Loreto, Agusan del Sur. A total of 300 respondents aged 18 years and above were selected from these schools, with proportional distribution based on population size in different senior high schools within Loreto North District. To ensure fair representation, the researcher employed stratified random sampling using Slovin's Formula to determine the sample size. Stratified random sampling is a probability sampling technique that divides a population into smaller, homogeneous subgroups or strata based on a shared characteristic. Within each stratum, a random sample is then selected to ensure representation of all groups in the final sample. This method enhances precision and reduces sampling bias, making it particularly useful when different subgroups may have distinct characteristics that influence study outcomes (Etikan & Bala, 2017).

The stratified random sampling method was used in this study instead of purposive sampling. The intended sample size was determined using Slovin's Formula to ascertain the sample size (n) given the population size (N) and an error margin (e). This formula is a widely used statistical tool for estimating an ideal sample size based on a given population

(Nguyen et al., 2020). With the data provided by the selected institution, the researcher allocated 38% of the sample to School A (115 respondents), 33% to School B (100 respondents), and 29% to School C (85 respondents). This proportional distribution ensured that all schools were fairly represented in the study. Additionally, respondents were given the freedom to withdraw at any time if they felt the study was unfavorable or posed any perceived threat.

The respondents for this study consisted of the actual students aged 18 years old and above from selected public schools, with a total of 300 respondents and distributed proportionally based on population size in different senior high schools in the Loreto North District. This approach ensured that schools with a larger population of eligible respondents contributed a higher percentage to the sample, while smaller schools had a correspondingly lower presentation. It was chosen based on recent guidelines for achieving statistical power and validity in social science research (Lakens, 2021). The purposive sampling method, which is widely used in educational studies, was employed to select participants who could provide specific insights on parental involvement and digital competence (Nanjundeswaraswamy & Divakar, 2021). The sample included students from San Isidro, San Vicente, and Binucayan, ensuring diversity in experiences with parental engagement and technology use (Bolarinwa, 2020). The respondents were distributed proportionally: 38% (115 respondents) from School A, 33% (100 respondents) from School B, and 29% (85 respondents) from School C. Ethical considerations were followed, allowing participants to withdraw if they felt uncomfortable. The researcher aimed for a sample size sufficient to reach data saturation, where no additional information is obtained from further interviews or surveys.

The study was conducted at Loreto, situated in the province of Agusan del Sur in the Philippines, which is a municipality that encompasses several barangays, including San Isidro, San Vicente, and Binucayan. Region XIII's Loreto, Agusan del Sur is situated halfway between the two thriving municipalities of Veruela and Lapaz (Agusan del Sur). The municipality's land area spans 1,462.74 square kilometers (or 564.77 square miles), making up 14.64% of the total area of Agusan del Sur. These locales serve as a focal point for the study due to their unique socio-economic, cultural, and educational landscapes. San Isidro, San Vicente, and Binucayan may represent a mix of urban and rural educational settings, providing a diverse sample of students and educational practices. The socio-economic status of the families in these areas and the resources available in their schools could vary, potentially influencing the level of parental involvement and, consequently, the students' academic commitment.

In such a setting, schools may differ in terms of access to technology, which could affect the study's dimension of digital competence. Community involvement and cultural values regarding education had an impact on how parents interact with the schools and support their children's education. It's also crucial to consider the potential logistical and practical challenges of conducting research in these locales, such as transportation, communication, and coordination with local educational authorities.

### ***Material and Instruments***

The researcher employed three sets of instruments in the investigation: to measure parental involvement, to measure teachers' digital competence, and to measure academic commitment. To measure the level of parental involvement as the independent variable, the researcher adopted the standardized survey of Liu et al. (2010) with the following indicators: parental encouragement, parental modeling, parental reinforcement, and parental instruction.

On the other hand, the extent of the teachers' digital competence as perceived by the students in terms of the learning-teaching process, selecting and using digital resources, assessment, digital technologies, and ethical use of technologies was modified from Ergül and Tasar (2023). Moreover, the level of academic commitment of students in terms of satisfaction, quality of alternatives, investment, meaningfulness, and level of commitment was modified from Human-Vogel and Rabe (2015). Rest assured that the group of experts has validated the instruments' contents. The validators' aggregate mean rating is 4.67.

The evaluation of student participation, parental involvement, digital competence and academic commitment involved the consideration of five distinct gradations. Each gradation was assigned a range of means and a corresponding description: 4.20 - 5.00 with a descriptive equivalent of Very High and interpreted that the item means always manifested; 3.40 - 4.19 with a descriptive equivalent of High, and analyzed as the item means oftentimes manifested; 2.60 -3.39 described as Moderate and the item implies sometimes manifested; 1.80 - 2.59 described as Low and means that the item implies seldom manifested; and lastly, 1.00 -1.79 described as Very Low and interpreted that the item means never manifested.

As a component of the methodology, the three sets of instruments underwent pilot testing with a sample of 30 participants to ascertain the Cronbach Alpha values before the content validation conducted by experts with overall average mean validation score of 4.67. Upon the reliability test, the independent variable (parental involvement) generated a Cronbach Alpha of 0.951, higher than the required 0.70 of the reliability from the pilot testing of the scale given to the respondents. Also another independent variable (digital competence) generated a Cronbach Alpha of 0.931, higher than 0.70 of the required Cronbach Alpha value, and the dependent variable (academic commitment) got 0.879, which is more significant than 0.70. All three variables generated an overall Cronbach Alpha of 0.920, higher than the required 0.70.

### ***Design and Procedure***

The study utilized a descriptive quantitative correlational research approach, which involves examining and describing the relationship between variables without manipulating them. This research method aims to identify the presence, strength, and direction of associations between variables but does not establish causality. The primary objective of descriptive quantitative correlational research is to understand the patterns of relationships among variables and provide a comprehensive summary of the collected data. According to Creswell and Creswell (2017), descriptive correlational research is commonly employed in quantitative studies to describe relationships between variables, and it is essential to select suitable statistical techniques for analyzing and interpreting the data.

The researcher drafted a formal letter seeking permission to undertake the study and forwarded it to the school's superintendent and principal. This letter aims to secure authorization to conduct research within the school boundaries, contingent upon informed consent. Before embarking on the study, respondents were briefed about the research's process and intent, after which their consent will be sought. An orientation was provided to the participants, during which the study's objectives will be explained. While participants can abstain from participating, they were urged to complete the survey questionnaire to aid in evaluating their school. The collected data was thoroughly compiled, verified, analyzed, visualized, and interpreted by the researcher using specific statistical tools under the guidance of the researcher's statistician.

Data analysis and interpretation involve several statistical techniques, such as calculating weighted mean, Pearson correlation coefficient ( $r$ ), simple regression analysis. The mean determined the level of parental involvement, digital competence, and academic

commitment. Pearson (r) was employed to determine the significant relationship between parental involvement and academic commitment, also the significant relationship between digital competence and academic commitment, A simple regression analysis was used to answer whether parental involvement and digital competence significantly predict the academic commitment of students in Loreto and Agusan del Sur schools.

Observing the guidelines established by the University of Mindanao Ethics Review Committee, adopted specific measures were followed to ensure the observance of ethical considerations. Moreover, the ethical considerations for this study were comprehensive and meticulously designed to ensure the integrity of the research and the protection of participants' rights. Participation in the study was entirely voluntary, and respondents were informed of their right to withdraw at any time without any repercussions. Moreover, to accomplish this ethical consideration, the study's data collection and writing phases incorporated voluntary participation, privacy and confidentiality, informed consent, recruitment, risk identification and mitigation, and identification of potential benefits. Other ethical issues, including plagiarism, fabrication, falsification, conflict of interest identification, deception, permission from an organization or location, and authorship, were also observed throughout the study. Overall, the study's ethical considerations were designed to protect participants' well-being and rights, ensuring the research was conducted with the highest standards of integrity and trustworthiness. The University of Mindanao Ethics Review Committee approved this investigation under protocol number UMER-2924-254.

## RESULTS AND DISCUSSION

This presents the data and the conclusions analyzed derived from the respondents' responses on parental involvement, digital competence, and academic commitment in selected public secondary schools in Loreto, Agusan del Sur. Following are the subheadings for the tables: level of parental involvement, level of teachers' digital competence, level of academic commitment, the significance of the relationship between parental involvement and academic commitment, the significance of the relationship between digital competence and academic commitment, and significance on the influence of parental involvement and digital competence on academic commitment.

**Table 1.** Level of Parental Involvement

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>	<b>Descriptive Level</b>
Parental Encouragement	0.72	3.99	High
Parental Modeling	0.72	4.03	High
Parental Reinforcement	0.72	4.00	High
Parental Instruction	0.69	4.02	High
<b>Overall</b>	<b>0.64</b>	<b>4.01</b>	<b>High</b>

Table 1 shows the descriptive statistical results on the level of parental involvement. The overall mean is 4.01, with a standard deviation of 0.64, categorized as high, indicating that parental involvement is often manifested among the respondents.

Among the indicators, parental modelling had the highest mean score of 4.03 with a standard deviation of 0.72, which is described as high. In contrast, parental encouragement recorded the lowest mean score of 3.99, also with a standard deviation of 0.72, but still classified as high. All indicators are consistently rated at a high level of parental involvement.

The results imply that the senior high school students of three public secondary schools in Loreto, Agusan del Sur, perceived a significant form of support where parents actively

motivate and inspire their children in their academic endeavors. With the high level of parental involvement, with parents actively participating in various aspects of their children's academic lives which supports students in developing effective study habits and problem-solving skills. Parental modelling, the indicator with the highest mean score, indicates that students frequently observe and learn from their parents' behaviors and attitudes toward problem-solving and learning.

On the other hand, these students need further improvement in parental encouragement; it indicates that this aspect of parental involvement is perceived slightly less positively compared to others. This suggests that there may be room for improvement, helps maintain students' motivation and commitment to their studies, which is vital for actively motivating and inspiring their children in their academic endeavors

In addition, this finding indicates comprehensive parental involvement is crucial for the holistic development of students, helping them achieve academic success and resilience. Previous studies affirm the importance of diverse forms of parental involvement in enhancing students' academic outcomes. The result agrees with the findings of Castro et al. (2015) found that parental involvement, including encouragement, modeling, and instruction, significantly impacts students' academic achievement and attitudes toward learning.

Another study by Wilder (2014) stated that the quality and nature of parental involvement, rather than the quantity, are key determinants of students' academic success. Furthermore, research by Fan and Williams (2018) highlights the positive effects of parental reinforcement and instruction on students' academic motivation and performance. The results revealed that parents actively participating in various aspects of their children's academic helps maintain students' motivation and commitment to their studies.

**Table 2.** Level of Digital Competence

Indicators	Mean	SD	Descriptive Level
Learning Teaching Process	3.79	0.82	High
Selecting and Using Digital Resources	3.98	0.54	High
Assessment	3.99	0.57	High
Digital Technologies	4.11	0.55	High
Ethical use of Technologies	4.09	0.54	High
<b>Overall</b>	<b>0.64</b>	<b>4.08</b>	<b>High</b>

Table 2 reveals the descriptive statistical results on the level of digital competence. The overall mean is 3.99, with a standard deviation of 0.48, categorized as high, indicating that digital competence is often demonstrated among the respondents.

Among the indicators, Digital Technologies had the highest mean score of 4.11, with a standard deviation of 0.55, described as high. In contrast, the Learning Teaching Process recorded the lowest mean score of 3.79, with a standard deviation of 0.82, but still classified as high. All indicators are consistently rated at a high level of digital competence.

The results affirm that the senior high school students of selected public secondary schools in Loreto, Agusan del Sur, reflect a high level of digital competence among teachers. With the level of teachers' digital competence, students generally perceive that their teachers are adept at using digital technologies to enhance learning, select and use digital resources effectively, conduct assessments, and emphasize ethical technology use. Digital technologies, the indicator with the highest mean score, implies that students feel that their teachers are reliably selecting appropriate digital resources and emphasizing the ethical use of technology, which are critical components of digital literacy.

On the other hand, these students need further improvement in learning teaching process; indicates that this aspect of digital competence is perceived slightly less positively compared to others. This suggests that there may be room for improvement in how technology is integrated into the teaching process to further enhance student engagement and creativity.

Moreover, empirical studies affirm the importance of digital competence in education. Voogt et al. (2018) highlight the necessity for teachers to integrate technology effectively to enhance student engagement and learning outcomes. Tondeur et al. (2017) emphasize that teachers' ability to select appropriate digital resources and foster ethical use of technology is crucial for developing students' digital literacy and responsible technology use. The results revealed that respondents observed that their teachers are reliably selecting appropriate digital resources and emphasizing the ethical use of technology, which are critical components of digital literacy.

**Table 3.** The level of Academic Commitment

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>	<b>Descriptive Level</b>
Satisfaction	4.26	0.59	Very High
Quality of Alternatives	1.96	0.57	Very Low
Investment	4.10	0.60	High
Meaningfulness	4.24	0.55	Very High
Level of Commitment	4.40	0.55	Very High
<b>Overall</b>	<b>3.79</b>	<b>0.37</b>	<b>High</b>

Table 3 shows the descriptive statistical results on the level of academic commitment. The overall mean is 3.79, with a standard deviation of 0.37, categorized as high, indicating that academic commitment is generally demonstrated among the respondents.

The indicators, Level of Commitment had the highest mean score of 4.40, with a standard deviation of 0.55, described as very high. In contrast, Quality of Alternatives recorded the lowest mean score of 1.96, with a standard deviation of 0.57, categorized as very low. All other indicators fall within high to very high levels, reflecting strong academic commitment among the respondents.

The results assert that the senior high school students of selected public secondary schools in Loreto, Agusan del Sur, reflect a high level of academic commitment. With the level of academic commitment, students are generally highly dedicated to their studies and determined to succeed academically. Level of academic commitment, the indicator with the highest mean score, implies that crucial for academic success, reflecting students' motivation to persist in their studies until completion. In contrast, the indicator "Quality of Alternatives" has the lowest mean value; indicates that this aspect of academic commitment is perceived slightly less positively compared to others. This suggests that students do not view other activities as preferable to their academic work, underscoring their strong focus on education. The low mean in this category highlights that student prioritize their studies over other potential distractions or activities, which is essential for maintaining high academic performance.

Furthermore, recent studies support the importance of various aspects of academic commitment in achieving educational success. For example, Kaya and Korucuk (2023) found that high levels of professional commitment among teacher candidates are indicative of their dedication to their educational roles, which parallels the high levels of commitment seen in students. Additionally, El Kalai et al. (2022) emphasize that teacher commitment significantly influences student academic commitment and achievement, highlighting the critical role of commitment in the educational context. The results revealed that commitment is crucial for academic success, reflecting students' motivation to persist and invest

significant time and effort in their studies when they find their academic work meaningful and fulfilling.

**Table 4.** Relationship between Parental Involvement and Academic Commitment

Parental Involvement	Academic Commitment					Overall
	Satisfaction	Quality of Alternatives	Investment	Meaningfulness	Level of Commitment	
Parental Encouragement	.326** .000	.067 .244	.459** .000	.326** .000	.227** .000	<b>.441**</b> <b>.000</b>
Parental Modeling	.397** .000	.008 .884	.467** .000	.325** .000	.231** .000	<b>.449**</b> <b>.000</b>
Parental Reinforcement	.374** .000	.005 .936	.480** .000	.352** .000	.286** .000	<b>.470**</b> <b>.000</b>
Parental Instruction	.440** .000	.028 .635	.526** .000	.338** .000	.274** .000	<b>.505**</b> <b>.000</b>
<b>Overall</b>	<b>.424**</b> <b>.000</b>	<b>.030</b> <b>.605</b>	<b>.533**</b> <b>.000</b>	<b>.370**</b> <b>.000</b>	<b>.281**</b> <b>.000</b>	<b>.515**</b> <b>.000</b>

Table 4. provides a comprehensive analysis of the relationship between various forms of parental involvement and different aspects of academic commitment. The strength and significance of these relationships are denoted by correlation coefficients (**r**) and significance values (**p-values**).

Parental encouragement is significantly positively correlated with most indicators of *academic commitment*, showing that it plays a critical role in students' academic lives. For instance, *parental encouragement* is strongly associated with *investment* ( $r=.459r = .459r=.459, p<.001p < .001p<.001$ ), suggesting that when parents actively encourage their children, it motivates them to invest more time and effort in their studies. This form of encouragement also positively influences satisfaction, meaningfulness, and overall academic commitment, though the effect on the quality of alternatives is not significant.

Similarly, *parental modeling* shows significant positive correlations with *academic commitment* indicators such as satisfaction ( $r=.397r = .397r=.397, p<.001p < .001p<.001$ ) and *investment* ( $r=.467r = .467r=.467, p<.001p < .001p<.001$ ). This indicates that when parents model positive educational behaviors, it encourages students to commit more deeply to their studies, enhancing their academic satisfaction and investment.

On the other hand, *Parental reinforcement*, which includes providing positive feedback and support, is also positively correlated with *academic commitment*. It shows a particularly strong relationship with *investment* ( $r=.480r = .480r=.480, p<.001p < .001p<.001$ ), underscoring the importance of reinforcement in motivating students to dedicate time and effort to their academic work. This form of involvement also significantly enhances students' perception of the meaningfulness and satisfaction derived from their studies.

In addition, *parental instruction*, which involves guiding and helping students with their *academic work*, has the strongest correlations among all types of involvement. It shows significant positive relationships across all *academic commitment* indicators, particularly with *investment* ( $r=.526r = .526r=.526, p<.001p < .001p<.001$ ), highlighting the critical role of parental instruction in promoting academic commitment. This suggests that instructional support from parents is crucial for motivating students to invest in their education and perceive their studies as meaningful and satisfying.

Overall, comprehensive parental involvement is significantly positively correlated with most aspects of academic commitment. The strongest correlation is with *investment* ( $r=.533r = .533r=.533, p<.001p < .001p<.001$ ), indicating that overall parental involvement greatly influences students' dedication to their studies. This comprehensive involvement enhances students' academic satisfaction, the meaningfulness of their studies, and their overall commitment to academic success.

Recent studies support these findings, emphasizing the importance of parental involvement in enhancing academic commitment and performance. Fatimaningrum (2022) conducted a meta-analysis that found a significant positive correlation between parental involvement and academic achievement. Similarly, Utami (2022) highlighted that parental involvement improves students' academic performance, school attendance, and motivation, further underscoring the vital role parents play in their children's education.

**Table 5.** Relationship between Digital Competence and Academic Commitment

Digital Competence	Academic Commitment					Overall
	Satisfaction	Quality of Alternatives	Investment	Meaningfulness	Level of Commitment	
Learning Teaching Process	.093	-.091	.159**	.107	.113	<b>.119*</b>
	.107	.115	.006	.064	.051	<b>.039</b>
Selecting and Using Digital Resources	.188**	.084	.306**	.132*	.170**	<b>.277**</b>
	.001	.148	.000	.023	.003	<b>.000</b>
Assessment	.353**	.144*	.416**	.285**	.242**	<b>.452**</b>
	.000	.012	.000	.000	.000	<b>.000</b>
Digital Technologies	.317**	.088	.385**	.282**	.244**	<b>.413**</b>
	.000	.129	.000	.000	.000	<b>.000</b>
Ethical use of Technologies	.326**	.042	.345**	.315**	.244**	<b>.398**</b>
	.000	.471	.000	.000	.000	<b>.000</b>
<b>Overall</b>	<b>.305**</b>	<b>.052</b>	<b>.389**</b>	<b>.270**</b>	<b>.246**</b>	<b>.396**</b>
	<b>.000</b>	<b>.372</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>

Table 5 provides a comprehensive analysis of the relationship between digital competence and various aspects of academic commitment. The correlation coefficients (**r**) and significance values (**p-values**) indicate the strength and significance of these relationships.

The *learning-teaching process* shows a modest positive correlation with overall *academic commitment* ( $r=.119r = .119r=.119, p=.039p = .039p=.039$ ), suggesting that effective and engaging learning processes slightly enhance students' overall commitment to their studies. However, the correlations with *satisfaction and meaningfulness* are not significant, indicating that other factors may play a more crucial role in these areas.

Selecting and using *digital resources* exhibits significant positive correlations with several aspects of academic commitment, particularly *investment* ( $r=.306r = .306r=.306, p<.001p < .001p<.001$ ) and overall academic commitment ( $r=.277r = .277r=.277, p<.001p < .001p<.001$ ). This implies that students who effectively utilize digital resources are more likely to invest substantial time and effort into their academic work, thereby enhancing their overall commitment.

*Assessment* shows the strongest correlations with *academic commitment* indicators. It is significantly positively correlated with *satisfaction* ( $r=.353r = .353r=.353, p<.001p < .001p<.001$ ), *investment* ( $r=.416r = .416r=.416, p<.001p < .001p<.001$ ), and overall

*academic commitment* ( $r=.452r = .452r=.452, p<.001p < .001p<.001$ ). This highlights the critical role of effective digital assessment methods in boosting students'

academic commitment, suggesting that when students can effectively evaluate their progress through digital tools, they are more committed to their studies.

*Digital technologies* are also significantly positively correlated with multiple aspects of *academic commitment*. There is a strong correlation with investment ( $r=.385r = .385r=.385, p<.001p < .001p<.001$ ) and overall *academic commitment* ( $r=.413r = .413r=.413, p<.001p < .001p<.001$ ). This underscores the importance of integrating digital technologies into learning environments to foster students' commitment to their studies.

*Ethical use of technologies* demonstrates significant positive correlations with several indicators of *academic commitment*, including investment ( $r=.345r = .345r=.345, p<.001p < .001p<.001$ ) and overall academic commitment ( $r=.398r = .398r=.398, p<.001p < .001p<.001$ ). This finding emphasizes the importance of teaching students how to use digital technologies responsibly, which in turn enhances their academic commitment.

When considering overall digital competence, there are significant positive correlations with most aspects of academic commitment. The strongest correlation is with investment ( $r=.389r = .389r=.389, p<.001p < .001p<.001$ ), indicating that higher *digital competence* is associated with greater investment in academic work. Overall, *digital competence* is significantly positively correlated with academic commitment ( $r=.396r = .396r=.396, p<.001p < .001p<.001$ ), suggesting that enhancing students' digital skills is crucial for fostering their *academic commitment*.

Recent studies support these findings, emphasizing the importance of digital competence in enhancing academic commitment and performance. High digital competence enhances academic achievement among research scholars (Kaur and Sharma 2022). Similarly, Gutiérrez-Ángel et al. (2022) highlighted the positive impact of digital competence on sustainable education and social development.

**Table 6.** Influence Parental Involvement and Digital Competence on Academic Commitment

		<i>Academic Commitment</i>			
(Variables)	B	B	t	Sig.	
Constant	2.399		15.458	.000	
Parental Involvement	.249	.436	6.971	.000	
Digital Competence	.099	.128	2.045	.042	
R	.525				
R <sup>2</sup>	.275				
ΔR	.271				
F	56.452				
P	.000				

Table 6 illustrates the significance of the influence of parental involvement and digital competence on academic commitment. The results indicate that both factors contribute significantly to students' academic commitment.

Parental involvement emerges as a strong predictor of *academic commitment*, with a regression coefficient (B) of 0.249 and a standardized coefficient (β) of 0.436. The t-value for parental involvement is 6.971, which is highly significant (*Sig.* = .000). This finding suggests that when parents are actively involved in their children's education—providing support, encouragement, and guidance—students are more likely to be committed to their academic pursuits. This aligns with existing literature that underscores the importance of parental engagement in fostering academic motivation and success.

*Digital competence* also plays a significant role, albeit to a lesser extent than parental involvement. The regression coefficient (B) for *digital competence* is 0.099, with a standardized coefficient ( $\beta$ ) of 0.128 and a t-value of 2.045, which is significant at the 0.05 level (*Sig.* = .042). This indicates that students who are proficient in using digital tools and technologies are more likely to be engaged and committed to their studies. This finding is particularly relevant in the context of modern education, where digital literacy is increasingly essential for academic success.

The overall model shows a correlation coefficient (R) of 0.525, indicating a moderate positive relationship between the combined factors of parental involvement and digital competence and academic commitment. The coefficient of determination ( $R^2$ ) is 0.275, meaning that these factors explain approximately 27.5% of the variance in academic commitment. The F-statistic of 56.452 is highly significant ( $p = .000$ ), suggesting that the regression model is a good fit for the data.

Previous studies support these findings. Hill and Tyson (2009) highlight that parental involvement significantly enhances students' academic motivation and commitment, while McMahan et al. (2019) emphasize the importance of digital competence in engaging students and improving their academic outcomes. These studies reinforce the notion that both parental support and digital literacy are critical components in fostering academic commitment.

In summary, the analysis reveals that both parental involvement and digital competence are significant predictors of academic commitment, with parental involvement having a stronger impact. These findings underscore the importance of a supportive home environment and digital proficiency in enhancing students' dedication to their academic work.

## CONCLUSION

This section presents the conclusions drawn after accounting for the study's findings. The senior high school students of selected public secondary schools in Loreto, Agusan del Sur, perceived high levels of parental involvement, digital competence and academic commitment. The results also confirm a significant relationship between parental involvement and academic commitment among senior high school students in selected public secondary schools in Loreto, Agusan del Sur. Similarly, there is a significant relationship between digital competence and academic commitment among the respondents. Similarly, the findings revealed a significance on the relationship of parental involvement and digital competence on academic commitment among the respondents. The study's results suggest that parental involvement and digital competence significantly predicts academic commitment.

The study revealed that parental involvement significantly correlates with academic commitment. The researcher recommends that school administration and the teacher should strengthened its communication and relationship to parents as stakeholders. This collaborative effort between parents and educators fosters a conducive learning environment, promoting academic success and resilience in students. Parents are encouraged to actively participate in their children's education by providing encouragement, modeling positive behaviors, and offering instructional support, as well as attending school meetings and creating a conducive learning environment at home

The data reveals that the highest levels of parental involvement, particularly through encouragement and modeling, play a crucial role in enhancing students' academic commitment. When parents actively foster a love for learning and demonstrate perseverance, they instill essential skills and attitudes in their children. This positive reinforcement

encourages students to develop a strong interest in their studies, remain motivated, and persist through academic challenges.

Since the study also revealed a significant correlation between digital competence and academic commitment among the respondents. The researcher recommends that the faculty and staff must skillfully integrate technology into their teaching methods, select appropriate digital resources, and provide meaningful digital assessments create an enriching learning environment. The effective use of digital competence by teachers significantly contributes to students' academic engagement. This not only supports individual learning needs but also encourages students to take an active role in their educational journey, enhancing their commitment to their studies.

Accordingly, the result substantiated the Self-Determination Theory (Deci & Ryan, 1985) inferring that student motivation and engagement are contingent upon fulfilling three basic psychological needs: autonomy, competence, and relatedness. Self-determination theory is a framework for studying human commitment, motivation, and personality, which involves people's inherent growth tendencies and innate psychological needs. As Epstein's Theory of Overlapping Spheres of Influence (Epstein, 1995): suggests that children learn best when there is a strong partnership between schools, families, and community. The theory identifies types of parental involvement such as parental encouragement, modeling, reinforcement, and instruction- each contributing to the child's academic success. Epstein emphasizes that these spheres should overlap to effectively support children's learning and development. The Technology Acceptance Model (TAM), proposed by Fred Davis in 1989, is a theoretical model that explains how users come to accept and use a technology. When integrating digital technology into education, TAM can help assess how teachers and students perceive technology's usefulness and ease of use in the learning-teaching process.

Moreover, the combination of high parental involvement and proficient digital competence in teaching forms a supportive framework that significantly boosts students' academic commitment. This collaborative effort between parents and educators fosters a conducive learning environment, promoting academic success and resilience in students. The findings underscore the critical importance of both parental support and effective use of digital technology in enhancing students' educational outcomes.

To improve academic commitment and performance, students may fully utilize the digital tools and resources provided by their teachers, engage actively in technology-based activities to boost their digital literacy and self-regulation skills, and maintain open communication with both parents and teachers for guidance and feedback. Parents are encouraged to actively participate in their children's education by providing encouragement, modeling positive behaviors, and offering instructional support, as well as attending school meetings and creating a conducive learning environment at home. Teachers may pursue professional development to enhance their digital competence and integrate technology into teaching, while school administrators should establish programs that foster regular communication among parents, teachers, and students. Policymakers may focus on encouraging parental involvement and the effective use of digital technologies in education by formulating supportive policies and allocating resources for professional development and parental engagement. Community leaders are encouraged to support local educational programs, while researchers may explore the long-term effects of parental involvement and digital competence on academic outcomes. Lastly, educational technology developers may create tools that engage students and parents effectively, tailoring them to meet the needs identified in research for improved educational outcomes.

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