

Predictors of Academic Achievement: The Influence of Family, Student, and Teacher Factors on Junior High School Learning Gaps

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ABSTRACT

This study sought to determine the role played by various factors in the formation of learning gaps and their effect on academic performance of students in junior high school of Lyceum of Aparri. Being based on a descriptive-correlational research design, information was obtained from 80 students from Grades 7 to 10 by convenient sampling and using an adapted questionnaire and grades in academic records. Five types of factors were considered in this research: factors related to students, teachers, families, schools and technology. The research revealed that family-related factors are perceived as those with the greatest effect on academic achievement (mean=3.52) and the highest correlation with grades ($r=0.445$). Moreover, the regression analysis stipulated that five groups of variables explain 41.2% of the variance in students' grades. Among these groups family factors ($\beta=0.35$), factors related to students ($\beta=0.28$) and those connected with teachers came first ($\beta=0.25$). This means that for efficient elimination of learning gaps in private school the issue at hand has to be approached from new perspectives which imply active involvement of parents in situations of learning difficulty as well as providing appropriate educational support.

1. Introduction

Education is central to individual advancement and progress of nations, with junior high school being a crucial stage in the educational journey of any student. This is the stage of learning where students gain competencies required for proceeding to senior high school. Despite this, the challenge of learning gaps continues to haunt educational systems globally (Trinidad, 2020).

In the Philippines, this problem is especially serious. The Country is informed by the 2018 Program for International Student Assessment (PISA) that Filipino students performed below the basic performance level for reading, mathematics, and science and ranked lower among other 78 participating nations (OECD, 2019). The most recent PISA results from 2022 reconfirm these shortcomings, as Filipino students aged 15 have scored 355 in reading, 355 in mathematics, and 356 in science (OECD, 2023). Junior high school results for those subjects indicate that students have been severely lacking according to national assessment results reported by the Department of Education (2023).

Currently, the COVID-19 pandemic has made this situation worse. Some of the longest school closing practices were observed in the Philippines, as face-to-face classes were suspended for more than two years. The shift from traditional schooling to distance education and modular learning has negatively affected the learning process of Filipino students, particularly from disadvantaged families, as they lacked access to advanced technology, internet connection as well as parental assistance (UNICEF, 2021; World Bank, 2022). The indicators contributing to this problem include social position, quality of education, parental involvement, as well as students' motivation and the conditions available in the school environment (World Bank, 2021; Trinidad & King, 2021).

This issue is also highly related to the Lyceum of Aparri, a private Catholic educational institution located in the northern Cagayan. Lyceum being a non-urban private school suffers from totally different problems than other urban private and rural public institutions with limited access to educational technology and restrictions in teacher training programs, as well as social problems of families in this municipality. The knowledge about factors contributing to learning gaps and their impact on the academic performance of students in the Lyceum institution can provide information for creating effective educational support.

2. Background of the Study

Number of studies have assessed the links between learning gaps and levels of academic performance, demonstrating that the differences in availability of educational opportunities and attained competencies correlate with differences in academic success. It has been pointed out in international studies that socioeconomic status is one of the major factors determining results of education, as students from low-income families attain poorer results than their well-off classmates (World Bank, 2021). Apart from that, the digital divide has only contributed to the intensifying of the inequality since students not having access to technological devices were at a disadvantage (UNESCO, 2021).

In the case of the Philippines, the scale of learning gaps can be seen from multiple pieces of information available. Even before the COVID-19 pandemic, the World Bank (2018) made a statement about the high level of learning poverty Filipino students suffer from (i.e. 80% of students are unable to read and understand properly a text appropriate for their age by the age of 10). Furthermore, the World Bank (2021) found out that there is still a high degree of difference in achievement levels between private and state students, while disadvantaged students have lesser opportunities to study alongside talented students. Trinidad (2020) researched

Philippine PISA data and found that the degree of variation of students' achievement levels among schools is considerably high and is influenced by the environment of the school and availability of materials. Trinidad and King (2022) found that ability grouping creates inequality rather than enhances acquisition of knowledge.

As a Catholic educational institution that supplies education for students from the town and neighboring rural barangays, Lyceum of Aparri has quite a special place in this framework. The school has students from different backgrounds (some families provide stable middle-class income while others live in simple fishing or farming community). The knowledge of how socioeconomic factors influence the existing learning gaps is necessary in order to develop suitable intervention measures for the school.

There has been a lot of information about learning gaps in the Philippines, but only little research done about this phenomenon in private educational institutions working in rural areas. Therefore, this study aims to prove the presence of these learning gaps and examine the factors that influence academic performance of junior high school students at Lyceum of Aparri.

2.1 Statement of the Problem

This study aimed to identify the factors associated with learning gaps and examine their relationship with the academic achievement of junior high school students at Lyceum of Aparri. Specifically, it sought to answer the following questions:

- What is the profile of the junior high school students at Lyceum of Aparri in terms of:
 - Age
 - Sex
 - Grade level
 - Parents' highest educational attainment
 - Monthly family income
- What are the perceived levels of the factors associated with learning gaps among junior high school students at Lyceum of Aparri in terms of:
 - Student-related factors
 - Teacher-related factors
 - Family-related factors
 - School-related factors
 - Technology-related factors
- What is the level of academic achievement of junior high school students at Lyceum of Aparri in terms of:
 - General average grade
 - Subject-specific grades in Mathematics, English, and Science
- Which among the student-related, teacher-related, family-related, school-related, and technology-related factors has the highest perceived influence based on the respondents' perceptions?
- Is there a significant relationship between the factors associated with learning gaps and the academic achievement of junior high school students at Lyceum of Aparri?
- Which among the five factor categories significantly predicts academic achievement when all factors are considered simultaneously?
- What recommendations may be proposed based on the findings of the study?

2.2 Significance of the Study

This study is intended to provide practical and research-based insights into the factors associated with learning gaps and their relationship with academic achievement.

- School Administrators. The findings provide administrators with empirical evidence on factors associated with learning gaps, supporting informed decisions on curriculum adjustments, resource allocation, and intervention programs.
- Junior High School Teachers. The study serves as a reflective tool helping teachers identify prevalent learning gaps and recognize areas where instructional strategies can be improved.
- Students. Students benefit from increased awareness of factors associated with their learning experiences, which may support the development of strategies for improving academic achievement.
- Parents and Families. The findings help parents understand factors influencing their children's academic achievement and encourage greater involvement in supporting their children's learning.
- Future Researchers. This study serves as a reference for future research on learning gaps, academic achievement, and educational interventions in private school settings.

2.3 Scope and Limitations of the Study

This study was limited to the factors associated with learning gaps and their relationship with the academic achievement of junior high school students at Lyceum of Aparri. It covered students from Grade 7 to Grade 10 across five categories of factors: student-related, teacher-related, family-related, school-related, and technology-related. Academic achievement was examined through general average and subject-specific performance in Mathematics, English, and Science.

The study was conducted at Lyceum of Aparri during the Academic Year 2025-2026. The respondents were junior high school students of the institution, and data were gathered through a survey questionnaire and academic records. Since the study employed a descriptive-correlational design, it only determined relationships among variables and did not establish direct causal relationships.

2.4 Theoretical Framework

Several theories provide complementary perspectives on the relationship between learning gaps and academic achievement. Ecological Systems Theory (Bronfenbrenner) explains that child development is influenced by multiple interconnected systems: the

microsystem (family, school), the mesosystem (interactions between microsystems), the ecosystem (indirect influences), and the macrosystem (cultural values). Applied to learning gaps, this theory helps explain how factors at multiple levels interact to shape academic achievement. Social Cognitive Theory (Bandura) emphasizes the role of self-efficacy, observational learning, and reciprocal determinism in shaping behavior and learning outcomes. Students with strong self-efficacy are more likely to persist in the face of academic challenges, while those with low self-efficacy may develop learning gaps that compound over time.

Constructivist Learning Theory (Piaget, Vygotsky) emphasizes that learners actively construct knowledge based on prior understanding and social interaction. Vygotsky's concept of the zone of proximal development highlights the importance of targeted instructional support in helping students bridge learning gaps.

Human Capital Theory (Schultz and Becker) frames education as an investment in skills and knowledge that yields returns in terms of productivity and economic outcomes. Learning gaps represent a failure to accumulate human capital, with long-term consequences for individual earning potential and national development. This theory provides a broader justification for understanding and addressing learning gaps.

Motivation Theories (Expectancy-value & Self-determination theory) explain how student motivation shapes academic engagement and achievement. Students who lack motivation or perceive little value in academic tasks may develop learning gaps due to reduced effort and engagement. Conversely, motivated students are more likely to persist and achieve.

These theories provide a comprehensive framework for understanding how student-related, teacher-related, family-related, school-related, and technology-related factors may be associated with learning gaps and affect academic achievement among junior high school students at Lyceum of Aparri.

2.5 Research Paradigm of the Study

This study adopted the Input-Process-Output (IPO) model to systematically organize the variables and procedures of the investigation.

- **Input Phase.** This phase contains the variables examined in the study. It includes (1) the respondents' demographic profile (age, sex, grade level, parents' highest educational attainment, and monthly family income); (2) the independent variables (student-related, teacher-related, family-related, school-related, and technology-related factors); and (3) the dependent variable (academic achievement measured through their general average and subject-specific grades in Mathematics, English, and Science).
- **Process Phase.** This phase covers the procedures employed: administration of survey questionnaires, collection of academic records, and statistical treatment of data using frequency, percentage, weighted mean, ranking, Pearson r correlation, and multiple linear regression analysis.
- **Output Phase.** This phase refers to the expected results: identified factors associated with learning gaps, the level of academic achievement, significant relationships between variables, significant predictors of academic achievement, and the proposed intervention program.

2.6 Review of Related Literature

In determining students' academic achievement, the presence of numerous factors interacting with each other has to be considered, with the learner still remaining the most important element of educational proceedings. The most defining factor on the individual level is the presence of intrinsic motivation, self-efficacy, and goal orientation, while the presence of the so-called affective filters might also significantly impact student performance. Moreover, peer relationships play an important indirect role through chaining-mediation, when positive social experiences increase motivation to learn and subsequently encourage academic engagement. Furthermore, students favorably perceive flexible education forms, such as self-directed learning, especially when their components come with a well-established feedback system. However, socio-economic restrictions affect low-income students' chances to get access to modern technology and subsequently hinder their learning styles and learning outcomes.

Teachers have tremendous authority over these effects by creating the way education is carried out and deciding on what educational standards mean. Being guided by various evidence, one can assert that teachers' positive attitude has more significance than self-efficacy or interest in the subject in question. Moreover, teachers' expectations also play their role when it comes to students' results in terms of their achievement motivation. Finally, the quality of education would greatly depend on teachers' knowledge of the subject, commitment, and a number of students taught by them. The schoolwork culture outside the classroom, which is influenced by the instructional leadership of principals, is key to maintaining the motivation of teachers needed for effective performance.

The household provides the environment for the acquisition of knowledge and emotions to occur impacting the student's academic achievements. The level of wealth of the family together with the education of both parents impacts on his/her success more than the occupation of the parents. In rural areas, parents' engagement is critical as it compensates for the influence of the family's wealth on the student's performance. For instance, creating a conducive atmosphere for reading at home and taking care of family jobs, social life, and money issues would prevent poor academic performance.

From an institutional point of view, the proper school climate should create conditions for teachers' staff support, safety, and discipline as well as enable good relationships at school. Equity in education is greatly dependent on the availability of resources. The introduction of online education technologies has also impacted on success with technology playing a significant role in education. Thus, in the Philippines, the digital gap has prevented rural kids and kids from poor families from using computers. Even when the access is available, the digital knowledge, competence of the student, is very important.

In order to eliminate the negative influence of such overlapping factors it is essential to specify educational policies. The ARAL program developed by the Department of Education is aimed at overcoming the lack of knowledge and achieving success in education identified through the national evaluation system. The program is grounded in Vygotsky's theory that explains the far distance between the child's independent ability to learn and the potential level of performance he/she can reach if educated. However, the data provided shows that the gaps still exist in public and private schools.

2.7 Synthesis of the Review of Related Literature

The integration of local and international literature reveals a consistent pattern: learning gaps are associated with multiple interrelated

factors. Both bodies of research identify student-related, teacher-related, family-related, school-related, and technology-related factors as significant determinants of academic achievement.

Teacher-related factors consistently emerge as critical determinants. Bardoquillo, Bardoquillo, and Yuan (2026) and Zhang and Wang (2021) document the impact of teacher attitudes, expectations, and competence on student outcomes across contexts. Family-related factors demonstrate consistent significance, with Gu, Hassan, and Sulaiman (2024) highlighting parental involvement as a mediating factor. School climate and technology access similarly predict achievement in both local and international settings (Trinidad, 2020; UNESCO, 2021; World Bank, 2023).

The review identifies important similarities and differences between local and international studies. While both agree on the significance of the five factor categories, the Philippine context presents more acute challenges. Filipino students demonstrate weak numeracy and literacy skills, exacerbated by the COVID-19 pandemic and modular distance learning.

The theoretical frameworks underpinning this review provide a strong foundation for understanding these findings. Ecological Systems Theory (Bronfenbrenner, 1979) explains the multiple levels of influence on student learning—from the immediate family and school environment to broader cultural contexts. Social Cognitive Theory (Bandura, 1986) explains how self-efficacy and observational learning shape student motivation. Constructivist Learning Theory (Vygotsky, 1978) emphasizes the importance of scaffolding in addressing learning gaps. Human Capital Theory (Schultz, 1961; Becker, 1964) frames learning gaps as a failure to accumulate human capital. Motivation Theories (Eccles & Wigfield, 2002; Deci & Ryan, 1985) explain how student engagement, attitudes, and resilience affect academic outcomes.

Through synthesis, a critical research gap becomes apparent. Most Philippine studies focus on public schools or urban contexts, leaving private Catholic institutions in non-urban settings underexplored. Limited research has specifically examined all five categories of factors simultaneously within a private Catholic institution in a non-urban municipality like Aparri.

In synthesis, The literature under review depicts academic success as attributable to a complicated, cohesive ecosystem rather than a range of disparate variables. The main factor that makes this whole system work is the internal psychological state of a student, which is affected by self-efficacy, goal-setting abilities, and emotional filters, and experiences of peers that might facilitate the student's motivation were considered. Nonetheless, this internal motivation has to be supported from the outside. Research shows that positive attitude of a teacher, along with high expectations, is the strongest stimulus for academic success, provided that the right conditions of instructional leadership and orderly and regulated school environment are created for this purpose.

Though the studies have been addressing the issues talked about above, systemic socio-economic inequalities interfere with these efforts. The socio-economic status of a student's parents and their educational accomplishments set the initial conditions for the development of academic career, although active engagement of parents acts as a protective factor, and especially in a rural setting. Nowadays, this income gap is manifested through the concept of "digital divide." Transition to flexible and modular distance education shows that the lack of any digital infrastructure affects the performance of students with low economic background because their incapacity to use technology leads to the gap in their results even if they have internal motivation to learn.

Thus, the combination of all the above mentions studies indicates that targeted and multi-tiered. Given that learning gaps mean the difference between the capacity to learn independently and the capacity to learn under special guidance, elimination of serious learning poverty requires solutions at the level of the whole system rather than just a teacher's effort.

2.8 Research Gap

From the synthesis of the analyzed literature, it is clear that several gaps in the research may be identified. Although all the studies manage to focus on particular variables at the level of individual concepts, additional investigation is required in respect to the following elements:

2.8.1 Environmental and Contextual Gap (Disaster-Prone Areas)

In the literature analyzed, socioeconomic factors and the digital divide in the normal socioeconomic areas (e.g. Gu et al., 2024; UNESCO, 2021) have been examined. However, there has hardly been much empirical research on how these variables interact in disaster-prone regions. More research needs to be conducted to understand how environmental disruptions complicate the emergence of the digital divide that affects the physical learning environment as well as the learning outcomes.

2.8.2 Pedagogical Design Gap (Outcome-Based Education in Restricted Areas)

The main studies (e.g. Mercado, 2024; Purigay et al., 2026) show the benefits of self-learning modules and efficiency of resource availability in distant education, yet the structural design of the courses is rarely analyzed. Therefore, there is a lack of studies in terms of the evaluation of the effectiveness of the OBE course modules in the areas with insufficient level of digital competence and limited Internet access. The influence of high-quality instructional design on students' learning outcomes is still to be studied.

2.8.3 Methodological Gap (Cross-Sectional vs. Longitudinal Resilience)

Most of the studies referenced in the article (Abao et al., 2024, Gu et al., 2024) adopted cross-sectional or descriptive-correlational designs that only provide information about students' performance at a particular moment. Longitudinal research is required to measure the academic resilience of students and effectiveness of teaching according to the changing conditions. Such research is particularly important in the contexts where various conditions are taking place requiring students to switch from face-to-face learning methods to distance education and vice versa.

2.8.4 Teacher-Institution Support Gap (Crisis-Oriented Leadership)

The studies analyzed confirm that the leadership of the administrators has an important effect on the performance of teachers (Hairon & Goh, 2022) and that teachers' attitudes have an impact on the students' outcome (Bardoquillo et al., 2026). However, the studies do not show how the support of the institution may affect the teachers in crisis conditions when they are expected to act as crisis managers.

2.9 Contribution to the Body of Knowledge

This research introduces a shift in the domain of educational systems making them transition from the safer environments to crisis-oriented realities of educational systems by providing five principal contributions to the domain:

Contextualization of the equity education: This connotes the extension of the existing models of equity framework by evaluating how the impact of destabilizing changes (natural calamities and so on) affects the digital divide and learning outcomes of learners.

Proactive Low-Tech Education: The paper presents the viable architecture of designing and establishing outcome-based education modules suitable for places with lack of a stable virtual environment.

Crisis Leadership: The research proposes the newly established system of administration providing schooling heads with the knowledge of how to motivate the learners and aid them while experiencing emergencies.

Resilience Modeling: The approach moves from a simple snapshot of the performance of various learners to the comparison of the data across various years to analyze what happens with the educational outcomes during the times of crisis.

Adapting Specific Education Approaches: The research proposes the use of Vygotsky's ZPD theory in real life and provides learners and their family members were offered support by means of interacting with the community.

3. Research Methodology

3.1 Research Design

The researchers utilized a descriptive-correlational research methodology in their investigation. In order to realize their research aims the authors employed the descriptive approach to represent the demographic characteristics of the participants of the study, determine levels of perceived factors responsible for learning gaps, and measure academic performance of high school students enrolled in Lyceum of Aparri Junior High. They also utilized the correlational research methodology to assess if there is any significant relationship between perceived factors related to learning gaps and academic performance of junior high school students at Lyceum of Aparri Junior School.

Since no independent variables were manipulated, it has been proved that the descriptive-correlational design is appropriate in the case of the present study because all the research does is to present information about an ongoing process, as well as correlate the independent and dependent variables, the independent being the five factors responsible for students' learning gaps and the dependent being the academic performance of students. Creswell (2014) supports the notion that the descriptive-correlational research design implies analyzing phenomena without establishing cause and effect dependencies.

3.2 Locale of the Study

The researchers conducted the investigation at Lyceum of Aparri where the study was held. The focus of their investigation was on students of grades 7 to 10 for the 2025-2026 educational year. The location was chosen because the aim of the present study was to investigate factors influencing learning gaps in Catholic private nonprofit school.

The respondents of the research were the students of junior high school in Lyceum of Aparri involved during the academic year 2025-2026. Grades 7-10 students took part in the investigation. The strategy of stratified random sampling was utilized by the researcher to sample respondents so that all grade levels were represented in the study. The number of respondents selected was, therefore, proportionate to the number of students in each grade (7th, 8th, 9th, 10th) with a total of 20 students from each grade. This was done with the intention of ensuring full representation of each of the constituting grade level. Officially enrolled as a junior high school student in Lyceum of Aparri in the Academic Year of 2025-2026. Having his/her academic records available to access evaluation of academic achievement and voluntarily willing to participate in this study.

3.3 Data Collecting Instrument

Questionnaire would be the main instrument in this study, having been adapted based on previously conducted research on the matter of learning gaps, academic achievement, and factors of learning outcomes. The questionnaire includes four sections.

Part I: Demographic Profile of respondents includes particular variables like the age, sex, grade, level of parent's education and family's income.

Part II: Factors associated with learning gaps evaluates the respondents' perspectives on the reasons of learning gaps, whether they occur because of student-related, teacher-related, family-related, school-related or technological factors

Part III: Academic Achievement measures academic achievement through averaging the grades of respondents and computing the results obtained by them in Math, English and Science.

Part 4: Open Feedback. In this part respondents were invited to express their views on any other factors affecting the learning gap.

The questionnaire included a 5-point Likert scale that was devised to evaluate respondents' attitudes towards the aspects which cause a gap in learning.

Validity and reliability of the tool. First of all, the adapted questionnaire was validated in terms of its content in accordance with the views provided by three specialists in education and research who estimated such things as relevance, clarity of items, and compliance with the objectives of the study

Secondly, a pilot test proceeded with 30 junior high school students who were not involved in the final sample for the purpose of testing reliability of the survey.

Data collection guide. Prior to performing the study, the researcher acquired approval from the administration of the Lyceum of Aparri to conduct the survey among junior high school learners. Then the researcher found the right respondents according to the stated requirements and chose 80 students using the technique of stratified random sampling method. The reason for conducting the study, methods to be used, and significance of the study for the respondents were communicated to them clearly.

Moreover, the consent of the respondents was taken prior to conducting the research of this study. The questionnaire was administered to the respondents by the researcher through identifying their needs successfully and making sure they could understand the content.

Participation in the research was voluntary, and anonymity was guaranteed to the participants. The participants were given the right not to answer any question they feel uncomfortable about.

After the completed questionnaires were collected, the data were checked for completeness, coded, tabulated, and provided for analysis.

3.4 Data Analysis

Descriptive and inferential statistics were used to analyze the data received from the respondents. The following statistical measures were employed in this study:

- Frequency count and percentage were used to represent the participants' demographics related to age, sex, grade level, educational level of parents, and family income.
- The weighted mean was used to assess the participants' agreement with the issues linked to educational gaps.
- Ranking method was used to establish the factors that showed the highest and the smallest weighted mean.
- Pearson correlation was used to assess the extent of correlation between various factor types and educational achievement of the respondents.
- Multiple linear regression analysis was applied to determine the factors predicting the impact of factors on educational achievement if all factors are considered.

3.5 Data Gathering Procedure

Prior to the implementation of the study, authority was acquired from the school authorities of Lyceum of Aparri in order to use the research instrument among junior high school learners. Upon being given approval, eighty (80) students were selected through stratified random sampling technique based on the laid down criteria. The respondents were informed on the aim of the study, the steps to be followed, as well as the significance of their response in the study. Consent was taken before administering the tool. The researcher distributed the questionnaire and gave the respondents instruction for effective understanding of the items. Participation in the study was voluntary, and the respondents were exercised that their response would not be disclosed. They were also informed on their right not to respond to questions which makes them uncomfortable. Upon collecting the filled questionnaires, the researcher checked the responses for completeness and assigned codes before being tabulated and analyzed.

3.6 Data Analysis and Statistical Treatment

Both descriptive and inferential statistics were used to analyze and interpret the data gathered through the respondents' answers. Specifically, the following statistical techniques were applied: 1. The respondents' demographic characteristics were described through percentage and frequency. 2. Weighted mean technique was used to find out how strongly the respondents agree with the factors related to the learning gaps such as family, school, teacher, technology, and learner-related factors. 3. Ranking method was used to identify the factors with the highest and lowest weighted mean. 4. The Pearson correlation was used to find out if there is a significant relationship between academic achievement and each of the categories of factors. 5. Multiple Linear Regression Analysis was used to find out if any of the factors were reliable predictors of academic achievement while all factors were being considered.

3.7 Research Ethics

The research has been conducted in an ethical manner in order to safeguard the rights, welfare, and privacy of the respondents. Prior to the research, the respondents were informed about what the research is about, its implementation, and how their participation is important in the research. Applicants have given their voluntary consent to take part in the research without being compelled to do so. Additionally, the researcher assured the respondents that no identification of any kind would be revealed at any point. The study followed the following ethical principles:

- The respondents were adequately informed about the purpose of the study.
- Participation was voluntary.
- No student was compelled to participate in the process of research.
- Treatment of participants was fair.
- Confidentiality of the responses of the respondents was maintained.
- The researchers conducted the study objectively.
- Citation was done properly.

4. Result

The results of the survey are elaborated on in this chapter, accompanied by an explanation of what the data may reveal about the association between the gaps in academic achievement and the conditions in which Junior High School students' study at the Lyceum of Aparri. Tables illustrate facts that are then subjected to interpretation and development based on theoretical concepts and other literature.

4.1 Demographic Profile of Respondents

Table 1.1 Age Profile of the Respondents

Grade Level	12 Years Old	13 Years Old	14 Years Old	15 Years Old	16 Years Old	Total
Grade 7	3	17	0	0	0	20
Grade 8	0	4	15	1	0	20
Grade 9	0	0	2	16	2	20
Grade 10	0	0	0	3	17	20
Total	3	21	17	20	19	80
Percentage	3.75%	26.25%	21.25%	25%	23.75%	100%

Table 1.1 presents the distribution of ages of 80 Junior High School student respondents. The distribution shows that the age group (13 years old) was the largest one (21 students, 26.25%), followed by the 15-year-old age group (20 students, 25%), 16-year-old age

group (19 students, 23.75%), and 14-year-olds (17 students, 21.25%). Only 3 respondents (3.75%) belonged to the younger age group (12 years old). Table 1.2 Gender Distribution among Respondents

Table 1.2 Gender of the Respondents

Grade Level	Male	Female	Total
Grade 7	7	13	20
Grade 8	9	11	20
Grade 9	8	12	20
Grade 10	9	11	20
Total	33	47	80
Percentage	41.25%	58.75%	100%

Table 1.2 provides demographic information about the participants. Out of the 80 responders, there were 47 female participants which is equivalent to 58.75 percent and 33 male participants seen in Table 1.2. This means that females surpassed males slightly in number.

Table 1.3 Father's Educational Attainment of the Respondents

Educational Attainment	Grade 7	Grade 8	Grade 9	Grade 10	Total
Elementary Level/ Graduate	1	0	0	0	1
Junior High School Level/ Graduate	0	0	0	3	3
Senior High School Level/ Graduate	1	1	1	0	3
College Graduate	12	14	13	13	52
Postgraduate Degree	4	5	6	6	21
Total	18	20	20	22	80
Percentage	22.50%	25%	25%	27.50%	100%

Table 1.3 indicates that most fathers of those surveyed had a college degree (65%), while other fathers with postgraduate credentials were at 26.25%. Very few fathers in the study had their education limited to elementary (1.25%), junior high (3.75%), or senior high school (3.75%)

Table 1.4 Mother's Educational Attainment of the Respondents

Educational Attainment	Grade 7	Grade 8	Grade 9	Grade 10	Total
Elementary Level/ Graduate	0	0	0	0	0
Junior High School Level/ Graduate	0	0	0	0	0
Senior High School Level/ Graduate	0	0	0	0	0
College Graduate	15	14	15	13	57
Postgraduate Degree	6	5	6	6	23
Total	21	19	21	19	80
Percentage	26.25%	23.75%	26.25%	23.75%	100%

Table 1.4 presents the education of the respondents' mothers, whereby the number of respondents whose mothers are college graduates is 57, making (71.25%) of them have mothers who had college education. The remaining 28.75% were mothers whose education is postgraduate, indicating that all the respondents have mothers who went through education, specifically higher education. Table 1.5 shows that 45% of the respondents earn more than ₱30,000 at a monthly basis, while 32.50% earn income between ₱21,000 and ₱29,000. Income ranging between ₱11,000 and ₱20,000 is reported by 20% respondents, while only 2.50% earn less than ₱10,000. The data implies that a majority of respondents belong to families in high income-group.

Table 1.5 Monthly Income of Parents of the Respondents

Monthly Income	Grade 7	Grade 8	Grade 9	Grade 10	Total
Below ₱ 10,000	1	0	1	0	2
₱11,000 – ₱20,000	4	4	3	5	16
₱21,000 – ₱29,000	7	8	5	6	26
Above ₱30,000	11	12	8	5	36
Total	23	24	17	16	80
Percentage	28.75%	30%	21.25%	20%	100%

Table 1.5 shows that 45% of the respondents earn more than ₱30,000 at a monthly basis, while 32.50% earn income between ₱21,000 and ₱29,000. Income ranging between ₱11,000 and ₱20,000 is reported by 20% respondents, while only 2.50% earn less than ₱10,000. The data implies that a majority of respondents belong to families in high income-group.

4.2 Factors Affecting Student Academic Performance

4.2.1 Student-Related Factors

Table 2.1 Student-Related Factors Affecting Academic Performance

Statement	Weighted Mean	Descriptive Value
I am excited to enhance my academic results.	3.08	Neutral
I think that I am capable of understanding complex lessons	3.31	Neutral
I set goals for myself while studying.	3.30	Neutral
I review my lessons consistently.	3.08	Neutral

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I handle my time wisely when doing schoolwork	3.04	Neutral
I take part enthusiastically during classroom undertakings.	3.04	Neutral
I ask inquiries when I do not grasp a lesson.	3.14	Neutral
I do not give up working although academic work is difficult.	3.26	Neutral
Overall	3.16	Neutral

Factors Associated with Students A summary of the weighted mean is found in Table 2.1: Factors Associated with Students Affecting Academic Performance Statement Weighted Mean Descriptive Value My motivation is for enhancing my academic performance. 3.08 Neutral I know I can handle the hard lessons. 3.31 Neutral Set goals while studying. 3.30 Neutral I often review my lessons. 3.08 Neutral I have good time management when dealing with academic works. 3.04 Neutral I often join our class-oriented activities. 3.04 Neutral I ask questions when lessons are not clear. 3.14 Neutral I go on studying when things get difficult. 3.26 Neutral TOTAL 3.16 Neutral According to Table 2.1, the overall weighted average or mean is 3.16 which can be read as neutral. The two highest rated statements are: “I know I can handle the hard lessons” (3.31) and “Set goals while studying” (3.30). The lowest score was recorded for both time management and participation in class – 3.04. The neutral indication in terms of factors associated with students implies that students have positive-based opinions about their learning but hardly manage these opinions. This is in line with Social Cognitive Theory (Bandura, 1986) arguing that self-efficacy beliefs influence persistence and effort. Students have a little bit more than enough self-confidence when it understands of the most complicated topics (3.31) but don’t use it when it comes to time management and class participation (3.04). Moreover, Comon (2024) established that the factors of students are significantly related to the academic performance, whereas Zou (2024) reported that self-efficacy and goal orientation are strong predictors of academic performance.

4.2.2 Teacher-Related Factors

Table 2.2 Teacher-Related Factors Associated with Learning Gaps

Statement	Weighted Mean	Descriptive Value
My teachers elucidate lessons clearly.	3.50	Agree
My teachers stipulate examples that help me comprehend concepts.	3.61	Agree
My teachers give comment that helps me get better.	3.41	Agree
My teachers help when I experience learning difficulties.	3.34	Neutral
My teachers persuade students to partake during discussions.	3.54	Agree
My teachers use teaching approaches that match students’ learning needs.	3.39	Neutral
My teachers create a positive classroom environment.	3.60	Agree
Overall	3.48	Agree

As Table 2.2 indicates, the average weighted mean totals 3.48 and can be interpreted as Agree. The statement with the highest score (“My teachers give me examples that help me understand the material”) has a rating of 3.61, and providing a favorable atmosphere in the classroom follows with a rating of 3.60. On the contrary, the statement with the lowest mean rating (3.34) refers to the situation when teachers help students cope with studies and problems arising in the course of studies. The rating obtained for the teacher-related factors is Agree which clearly indicates that teachers do play a crucial role in the process of learning. The findings of the current research have been supported by the findings demonstrated by Bardoquillo, Bardoquillo, and Yuan (2026), where the authors found positive correlation between teachers and students’ success in mathematics. They are also corroborated by the results of Zhang and Wang (2021), where it was shown that teachers’ expectations play a mediatory role in students’ inspiration and success. Currently, it should be noted that the Neutral score received from the respondents for the indicator that refers to help provided by teachers (3.34) is indicative of the fact that individualized assistance may be inadequate including the indicator of Vygotsky’s (1978) Zone of Proximal Development, which points at the significance of the targeted assistance provided to them.

4.2.3 Family-Related Factors

Table 2.3 Family-Related Factors Associated with Learning Gaps

Statement	Weighted Mean	Descriptive Value
My Parent(s)/guardian(s) encourage me to do well in school.	3.44	Agree
My family monitors my academic progress.	3.39	Neutral
My parents/guardians assist me when I experience academic problems.	3.24	Neutral
My family provides me appropriate place for studying at home.	3.73	Agree
My family gives the items necessary for my studies.	3.73	Agree
My parents/guardians show attention in my school events.	3.59	Agree
Overall	3.52	Agree

The values demonstrated in Table 2.3 show that the average weighted mean value is 3.52, meaning that the score can also be interpreted as Agree. Two indicators of the table have equal highest average value which is 3.73 (the help provided with the place for studying and the right materials) and only one indicator of the table has the lowest average score of 3.24, which refers to assistance provided by parents during the time of difficulties faced. The Agree score for family-related factors makes it clear that at home the students are encouraged to study more effectively. The findings of the research correspond with the findings of the research completed by Gu, Hassan, and Sulaiman (2024), where the researchers demonstrated the mediatory role of parental impact in connection with academic success obtained by students by their socioeconomic status. Moreover, that corresponds with the findings of the Ecological Systems Theory introduced by Bronfenbrenner (1979), where the influence of family as a microsystem is discussed. However, it should be noted that the response referring to the score of 3.24 shows that the respondents receive materials that help them study, while they may lack proper assistance with studies faced.

4.2.4 School-Related Factors

Table 2.4 School-Related Factors Associated with Learning Gaps

Statement	Weighted Mean	Descriptive Value
My school provides a safe atmosphere for learning.	3.36	Neutral
My classroom atmosphere supports effective learning.	3.29	Neutral
Learning materials are accessible when needed.	3.28	Neutral
The school delivers programs that help students improve academically.	3.32	Neutral
Students are treated fairly in school.	2.09	Neutral
Teachers and students have positive relationships.	3.04	Neutral
The school encourages students to achieve academic success.	3.53	Agree
Overall	3.27	Neutral

Purely based on the weighted average mean of 3.27, school-related factors may, therefore, be considered to be Neutral. The statement "The school encourages students to excel in their academics" has the highest rating of 3.53 while the statement "Students are treated equally in school" is rated lowest with a score of 2.09. The Neutral rating for school-related factors in addition to Disagree rating provided with regard to the concept of fairness (2.09) indicates that school climate requires improvements. The protection of findings of Trinidad (2020) according to whom school climate is one of the key factors influencing student outcomes and the results obtained by Wang and Degol (2016) who stated that a good school environment is an essential prerequisite of engagement and success highlight this.

4.2.5 Technology-Related Factors

Table 2.5 Technology-Related Factors Associated with Learning Gaps

Statement	Weighted Mean	Descriptive Value
I have access to digital devices needed for learning.	3.26	Neutral
I have reliable internet access for academic activities.	3.16	Neutral
I can use digital tools for school-related tasks.	3.01	Neutral
Technology helps me understand lessons better.	3.04	Neutral
Digital resources allow me to learn beyond classroom discussions.	3.16	Neutral
Lack of technology access affects my learning progress.	3.43	Agree
Overall	3.18	Neutral

The neutral sentiment towards technology-related statements combined with Agree sentiment towards the lack of access influence with a score of 3.43 shows that the digital divide continues to exist. Such results are consistent with UNESCO (2021), which reported that the majority of Filipino students lack computers for educational purposes, and the World Bank (2023), which stated that the existing absence of technology access increases disparities. According to Scherer, Siddiq, and Tondeur (2019), having access alone is not enough; it is vital to be able to use technology successfully and proficiently.

4.3 Academic Achievement of Junior High School Students

4.3.1 General Average

Table 3 Distribution of Respondents' Grades in English, Mathematics, and Science

Subject	80-85	86-90	91-95	96-100	Total
English	8	24	28	20	80
Mathematics	10	26	25	19	80
Science	9	27	32	12	80
Total	27	77	85	51	240
Percentage	11.25%	32.08%	35.42%	21.25%	100%

The information obtained from the figure reveals that apart from the lower scoring categories, the biggest category of grades belonged to the 91-95 category since the number of respondents scoring in that category comprises 35.42 %, followed by the 86-90 category with 32.08 %, and then with 21.25 %, while the last category is represented with the smallest number, amounting to 11.25 %. Among the three subjects examined, it was observed that Science possessed the biggest amount of grades in the 91-95 range, while English possessed the bigger amount of grades in the 96-100 range in comparison to any other subject being evaluated.

Table 3.1 General Average of the Respondents

General Average Range	Frequency	Percentage
80-85	9	11.25%
86-90	26	32.50%
91-95	28	35.00%
96-100	17	21.25%
Total	80	100%

This table shows the General Average of the respondents and based on this table, it is clear that most respondents in these cases had the General Average of 91-95 that is equal to 35% of the total number of respondents, the second position belongs to the range of 86-90 (32.5%), the next average being 96-100 (21.25%), and finally 80-85 (11.25%). Thus, we can conclude that the majority of respondents had quite good and high academic performance in their studies.

4.4 Factors with the Greatest and Least Perceived Influence on Academic Performance

Table 4. Summary of the Overall Weighted Means of the Factors Associated with Learning Gaps

Factors	Overall Mean	Weighted Descriptive Value	Rank
Family-Related Factors	3.52	Agree	1
Teacher-Related Factors	3.48	Agree	2
School-Related Factors	3.27	Neutral	3
Technology-Related Factors	3.18	Neutral	4
Student-Related Factors	3.16	Neutral	5

In table 4, it can be observed that the family related factors scored the highest weighted mean of 3.52, thus showing that the family factors had the strongest influence on the respondents and their academic performance EXAMINATION OF THE RELATIONSHIP BETWEEN VARIABLES AND ACADEMIC SUCCESS The table above displays a summary of the relationship between the different categories of variables and the average performance in school (general average). As presented in the table, student factors ($r=0.412$, $p=0.001$), teacher factors ($r=0.378$, $p=0.003$), family-related factors ($r=0.445$, $p=0.000$), and the school itself ($r=0.291$, $p=0.021$) have a significant relationship with the academic performance. Out of all factors, family-related factors had the strongest relationship ($r=0.445$), followed by student-related factors ($r=0.412$) and teacher-related factors ($r=0.378$)

4.5 Relationship Between Factors and Academic Achievement

Table 5 Correlation Between Factors Associated with Learning Gaps and Academic Achievement (General Average)

Factor Category	r	p-value	Interpretation
Student-Related Factors	0.412	0.001*	Significant, moderate positive
Teacher-Related Factors	0.378	0.003*	Significant, moderate positive
Family-Related Factors	0.445	0.000*	Significant, moderate positive
School-Related Factors	0.291	0.021*	Significant, weak positive
Technology-Related Factors	0.203	0.089	Not significant

*Note: $p < 0.05$ (two-tailed). $N = 80$.

Results indicate that an individual's immediate family and social network exerts a major influence on student achievement. Family factors represent the strongest determinant of success and show the highest correlation ($r = 0.445$) and the maximum level of statistical significance ($p < 0.001$). This means that factors such as parents' involvement in student's life, supportive atmosphere at home and family relationships constitute the most important factors related to student's average results in this research. Besides home conditions, factors related to learners ($r = 0.412$, $p = 0.001$) and educators ($r = 0.378$, $p = 0.003$) are found to have a moderate but important impact as well. Student's motivation and learning habits as well as teaching style are crucial factors influencing learner's performance positively. Similarly, school conditions including administrative measures and infrastructure also have positive and statistically significant correlation ($r = 0.291$, $p = 0.021$), though significantly lower than that in case of gaining direct, personal experience of learners with their families and teachers. It is important to note that technology factors ($r = 0.203$, $p = 0.089$) are the only category that is statistically significant. For these students, variations in technology do not bring any positive changes in average results. This is an important indicator that any interventions aimed at reducing knowledge gaps have to be focused on social issues rather than technological ones.

Table 6 Correlation Between Factors and Subject-Specific Grades

Factor Category	Mathematics (r)	English (r)	Science (r)
Student-Related Factors	0.385*	0.401*	0.372*
Teacher-Related Factors	0.342*	0.356*	0.331*
Family-Related Factors	0.418*	0.432*	0.405*
School-Related Factors	0.267*	0.289*	0.254*
Technology-Related Factors	0.187	0.198	0.176

*Note: $p < 0.05$

The information available in Table 6 shows the trends in the role played by certain educational elements when it comes to subject grades in Mathematics, English, and Sciences. Family-related parameters provide the most significant positive correlation among all three disciplines, with the strongest link being in English ($r = 0.432$). This means that family setting and parental support become the principal reason for student success irrespective of the subject learnt. The next factors to be noted are student factors (from $r = 0.372$ and $r = 0.401$) and teacher-related factors (from $r = 0.331$ to $r = 0.356$), both of which show medium strong levels of correlation with the students' academic performance. Even school factors report significant correlation patterns as well, their influence is much weaker (from $r = 0.254$ to $r = 0.289$). At the same time, technology-related metrics have no significant link to students' grades in any of the subjects, which proves that differences in technology access or usage do not allow predicting school performance for students in Math, English, or Science in this case. What is being concluded from the table is that human interaction is much more important than technology and other institutions for local students.

4.6 Multiple Linear Regression Analysis

Table 7 Multiple Linear Regression: Predictors of Academic Achievement (General Average)

Predictor	B	SE B	β	t	p-value
(Constant)	72.45	3.21	-	22.57	0.000

Student-Related Factors	0.89	0.31	0.28	2.87	0.005*
Teacher-Related Factors	0.76	0.29	0.25	2.62	0.011*
Family-Related Factors	1.12	0.33	0.35	3.39	0.001*
School-Related Factors	0.34	0.28	0.12	1.21	0.230
Technology-Related Factors	0.18	0.26	0.07	0.69	0.492

Note: $R^2 = 0.412$, Adjusted $R^2 = 0.372$, $f(5,74) = 10.37$, $p < 0.001$. $p < 0.05$.

The table below MULTIPLE LINEAR REGRESSION ANALYSIS The following breakthrough has been made in multiple linear regression analysis. F (5.74) is a statistically significant model with the R^2 of 0.412 which suggests that five variable categories account for 41.2% of the total variance in academic achievements. Among five predictive variables family-related factors ($\beta=0.35$, $p=0.001$), student-related factors ($\beta=0.28$, $p=0.005$) and teacher-related factors ($\beta=0.25$, $p=0.011$) have appeared statistically significant in explaining academic achievements. However, school-related factors ($\beta=0.12$, $p=0.230$) and technology-related factors ($\beta=0.07$, $p=0.492$) turned to be insignificant. The regression equation is Academic Achievement = $72.45 + 0.89$ (Student) + 0.76 (Teacher) + 1.12 (Family) + 0.34 (School) + 0.18 (Technology) It means that if family-related factors are increased by 1-point, academic achievement score will rise by 1.12 holds other factors constant. Family-related factors have made the greatest contribution to predicting academic achievements, followed by student-related and teacher-related variables.

4.7 Qualitative Feedback Thematic Analysis

An open feedback segment received responses from 42 out of 80 respondents (52.5%). Thematic analysis resulted in extracting three main themes as follows:

- Teaching Methods (n=18): Students have shown a preference for lively, interactive teaching techniques. Sample comments were: "I like it better when the classes involve group work" and "I wish there were a lot of examples and visual aids".
- Time Management and Study Habits (n=15): Students realized the difficulty posed by time management and study habits. One respondent pointed out: "It's difficult for me to revise and study with so much homework".
- Financial and Technological Barriers (n=9): Some students reported financial difficulties and lack of technology. As one student summarized, "We do not have access to the Internet at home, and thus I have problems with doing research".

5. Discussion

The research study highlights the relevance of the immediate family and social circle of a student in ensuring success in studies at the Lyceum of Aparri. Based on the analysis of the data, it can be seen that family-oriented variables have the greatest impact on academic achievement ($r=0.445$) and are the greatest predictor of academic performance. The results of the multiple linear regression show that all the family-related, student-related, and teacher-related variables can explain 41.2% of the variance in the general average of students in the case.

The demographic characteristics of the respondents also reflect their socioeconomic status, as the majority of the respondents are from families with average and above-average income levels and with parents that have received either college or university degrees. Even though students possess a proper understanding of the subject and are sure about their abilities to tackle difficult issues, they face issues with time management and participation in class.

Moreover, while teachers are regarded as quite good in terms of understanding of the subjects taught, it is recognized that students often do not receive enough help in cases of difficulties relating to their specific learning processes. However, technology-related factors are not found to be statistically significant in the case of academic performance, which means that the existence of a digital divide in this cohort is not the reason for learning gaps.

6. Conclusion

The results of the research indicate that students at the Lyceum of Aparri have considerable advantages in their socioeconomic background as they are often born in a family with an advanced educational and economic status that helps parents support the students with the learning process. Although students have some basic attitudes supporting the learning process, they still require assistance in learning how to study and manage their time effectively. Teachers are seen as positive figures in the classroom but there is a necessity to improve the amount of personal guidance they provide to weak students.

Families seem to give students most of the necessary tangible resources, yet there is a real need to ensure their more active participation in the process of learning as well. Apart from that, the issue of fair treatment raises some important concerns about the school climate and equity issues that are supposed to be addressed by school administration.

Finally, although having access to digital devices and the internet can be a challenge for some students, technology-related limitations did not have a considerable effect on the students' academic performance in the case of the given cohort of students. Thus, in the end, it is possible to state that such basic human factors as family, student, and teacher have the main impact on the academic success of the students.

7. Recommendations

Based from the synthesized findings of this research, tackling the learning gaps among junior high school students at Lyceum of Aparri entails taking a collaborative, multi-level approach. Given the significant role of the factors related to family, learner, and teacher, it is imperative to ensure that interventions will be focused precisely on enhancing human relations.

The following recommendations are put forth in order to create a more fair, supportive, and effective educational environment for school stakeholders such as parents, teachers, students, and other interested parties.

- For the school management and curriculum builders: The management needs to carry out a comprehensive analysis of all school regulations to ensure that no child is neglected and to address the issues of misconduct in an institution. They should also improve

- all existing academic assistance programs through incorporating targeted strategies like tutoring, peer support, and formal remediation.
- For the teachers and educators: The educators should apply participatory and interesting teaching techniques when conducting their classes. In addition, it is essential to provide educational aid. For the family: The families have to move from being just the source of physical educational supplies to providing more assistance to their own children in overcoming obstacles on their educational path.
 - For the learners: It is necessary to spend efforts on developing the skills of time management, effective study techniques, and the activeness in the classroom.
 - For other researchers: In the further studies, it is advisable to apply a longitudinal design that would allow making it possible to follow the changes of the previously noted facts. Additionally, it is recommended to widen the sample to include different cases of private schools.

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