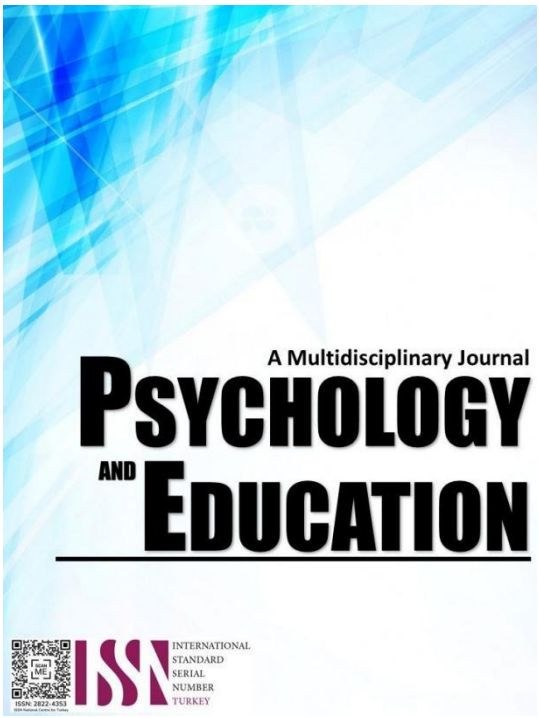
THE IMPLEMENTATION OF EARLY LANGUAGE, LITERACY AND NUMERACY (ELLN) PROGRAM AND THE LIFELONG LEARNING SKILLS OF THE KEY STAGE 1 LEARNERS IN CALABARZON: BASIS FOR INSTRUCTIONAL MODEL



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Research Article

The Implementation of Early Language, Literacy and Numeracy (ELLN) Program and the Lifelong Learning Skills of the Key Stage 1 Learners in CALABARZON: Basis for Instructional Model

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Abstract

Early childhood education serves as the foundation for lifelong learning, equipping young learners with essential cognitive and socio-emotional skills. This study explores the effectiveness of the Early Language, Literacy, and Numeracy (ELLN) program of instruction in predicting the development of lifelong learning skills among key stage 1 learners in CALABARZON. Employing a mixed-methods approach, data were gathered from 186 teachers and 1,150 learners across various schools, categorized based on the profiles of the teachers and learners in terms of School profile, including location, size, School-Based Management (SBM) level, and learners' profile, including grade level, sex, and socioeconomic status. Level of implementation of the Early Language, Literacy and Numeracy program of instruction in terms of assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies. Significant differences in the implementation of Early Language, Literacy and Numeracy program of instruction when grouped according to School profile, Level of competency of the key stage 1 learners who undergone the Early Language, Literacy and Numeracy program of instruction in terms of lifelong learning skills such as: communication skills, creativity skills, critical thinking skills, interpersonal relationship skills, problem solving skills, and self-awareness building skills. Significant differences in the level of competency in lifelong learning skills among key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction, according to learners' profiles. Does the Early Language, Literacy, and Numeracy program of instruction predict the development of lifelong learning skills among key stage 1 learners? Lastly, the researcher proposed the enhanced program of instruction for the Early Language, Literacy, and Numeracy Program. The study assessed dimensions of the Early Language, Literacy, and Numeracy program of instruction, including assessment and evaluation, curriculum instruction, learning environment, parental and community involvement, professional development, and teaching strategies. Findings revealed that overall implementation of the Early Language, Literacy, and Numeracy program of instruction significantly predicts the development of lifelong learning skills. Specific aspects, such as assessment and evaluation, curriculum instruction, learning environment, parental and community involvement, professional development, and teaching strategies, positively contribute to learners' cognitive growth. Learners who participated in the Early Language, Literacy, and Numeracy program demonstrated moderate competency levels. Additionally, the study found no significant differences in lifelong learning competencies across demographic groups. However, it was evident that female learners and those from middle-income families showed stronger engagement in literacy and numeracy activities. Based on these insights, an Enhanced Program of Instruction is proposed, aiming to refine instructional strategies, enhance teacher training, and strengthen school-community partnerships.

Keywords: *implementation, lifelong learning skills, key stage 1 learners, enhance, early language literacy and numeracy, program of instruction*

Introduction

Lifelong learning must be prioritized in this challenging world. It is the ability and desire to continue learning throughout one's life. It makes it easier to evolve and adapt continuously to a world that is changing quickly. It takes confidence and self-belief to accomplish tasks, which are essential for learning and applying new abilities. Lifelong learning is meaningful because of factors such as new technology, globalization, environmental changes, digitalization, and unexpected events like the COVID-19 pandemic (Organisation for Economic Co-operation and Development [OECD], 2020).

Conducting a study on the Early Language Literacy and Numeracy (ELLN) Program is imperative, as recent research (Smith & Lee, 2023) underscored the critical role of foundational skills in early education. A 2025 meta-analysis of 83 studies (UNESCO, 2024) highlighted that educational media significantly enhance early numeracy skills, with computer-based instruction proving particularly effective. Additionally, a 2023 UNICEF report emphasized that early literacy and numeracy are fundamental to learning, laying the groundwork for problem-solving, logical reasoning, and critical thinking.

In today's competitive global marketplace, "lifelong earning demands lifelong learning" (Duyff, 2019), and hard work and loyal service used to be the two main ingredients for a secure future. Today's employers, however, place a premium on those who continually acquire skills and knowledge and who can adjust to the evolving needs of the global labor market. Thus, lifelong self-directed learning is the most important competence people must possess. Lifelong learning is attitudinal-one should be open to new ideas, decisions, skills, or behaviors. Skills for lifelong learning relate to acquiring, processing, and transferring knowledge. Lifelong learners need to know what they want to learn, how to develop their learning plans, and how to exercise critical and creative thinking, problem-solving, and

decision-making, all accompanied by regular self-reflection.

Across Asian context, particularly in Middle East countries, developing a new skill by taking a personal course through online education or class-based course (e.g., learning a new language, cooking, and programming), learning a new sport or activity (such as cycling, diving, and gym activities) or learning to use new technology (smart devices and new software applications) can be shown as some examples to lifelong learning (Boeren, 2020). At the same time, to succeed in today's society, people need various skills. These 21st-century skills include the following learning skills: critical thinking, collaboration, creativity, communication, and technological proficiency. These competencies are essential for solving complex problems, adapting to new ideas, and thriving in a constantly evolving job market (Gonzales, 2020).

From a National Perspective, there is a need for lifelong learning in every nation, requiring continual adaptation and learning. Unquestionably, lifelong learning can be effective only if individuals are taught to learn and process information effectively (Cornford, 2020). A study on developing knowledge and skills for transitional economies conducted by Hargreaves and Shaw (2021) found the need for an innovative conception of curriculum design that includes content for learning new skills. This new content requires teaching skills, which should be taught to teachers before they deliver the content to their classrooms. Curricula for the future must be designed with extensive information that encompasses the content and the learning skills students should acquire to face the challenges of the globalized world (Cornford, 2020; Hargreaves & Shaw, 2021). In the Philippines, the ELLN Program has been implemented to address challenges in foundational learning. However, Garcia and Santos (2020) posited that the program's implementation faced challenges, including limited stakeholder engagement and the need for enhanced professional development for educators. Evaluating the ELLN Program's effectiveness is crucial for identifying areas for improvement and ensuring it meets its objectives of enhancing early education outcomes.

Around the Region, one of the most influential writers on lifelong learning, Candy (2021; Candy et al., 1994), identified five key attributes that lifelong learners must possess: (1) an inquiring mind (love of learning, sense of curiosity); (2) helicopter vision (an understanding of how knowledge is created and its limitations); (3) a sense of personal efficacy (a positive self-concept as a learner); (4) information literacy (the ability to research, manage, and evaluate information); and (5) a repertoire of learning skills. Similarly, Knapper and Cropley (2020) described several attributes of lifelong learners, including being able to plan and assess their learning, being active rather than passive learners, learning in both formal and informal settings and from peers, teachers, mentors, and others; being able to integrate knowledge from different subject areas; and using different learning strategies for different situations. As suggested by Livneh and Livneh (1999), these studies indicate two significant elements in lifelong learning: possessing the necessary learning skills and intellectual ability, and the internal motivation to gain further knowledge.

In the local setting, amid an ever-changing world and globalization, the learning needs of the society around us have also been evolving. The society could not remain a traditional learning society, which has emerged as a "lifelong learning society." Individuals and societies have realized that learning occurs not only at all stages of life but is increasingly spread into a wide variety of areas. It has assumed prominence in the present-day world of life and work environments. The present society, at large, is a learning and knowledge society, a humane society of which the thrust is on knowledge for justice, solidarity, democracy, and peace -- a society in which knowledge is a force for changing society.

Similarly, lifelong education covers "formal, non-formal and informal patterns of learning throughout the life cycle of an individual for the conscious and continuous enhancement of the quality of life, his own and that of society" (Marjan Laal, 2011).

In this context, UNESCO (Jacques Delors et al., 1996) has highlighted the following four pillars of lifelong learning for the 21st Century: learning to know by mastering cognitive skills and collaboration; learning to do by mastering skills and production; learning to be by admitting multiple intelligent (MI) and sustainable human development, and learning to live together by dialogue and tolerance. These four pillars of knowledge cannot be anchored solely in a single phase of a person's life or in a single place. There is a need to rethink when and what kind of education should be provided, and which fields such education should cover. The periods and fields should complement each other and be interrelated so that everyone can get the most out of their specific educational environment throughout their lives.

The gap lies between the lifelong learning skills of Key Stage 1 learners in CALABARZON and the competencies they acquire through the implementation of the ELLN Program. This gap needs to be addressed to ensure that kindergarten, Grade 1, Grade 2, and Grade 3 students develop not only foundational literacy and numeracy but also the lifelong learning skills necessary for future academic success, for they need to cope with the demands of society regarding lifelong learning skills and how they can benefit from learning in the ELLN program instruction. The study aimed to explore the predictors of lifelong learning skills in key stage 1 learners in CALABARZON. It also examined the students' self-belief and the ability to develop these abilities in school. To prepare students for success in today's world, teachers must understand what skills are necessary to improve the education of these learners.

This study addressed this gap by examining the elements affecting young learners in CALABARZON in their acquisition and improvement of lifelong learning skills. The research provided evidence-based suggestions for improving early language, literacy, numeracy, and lifelong learning skills by thoroughly investigating these determinants. By doing this, it hopes to support the more general objective of educating students for a time when success will depend on their ability to learn new things continuously and adapt.

The Early Language Literacy and Numeracy (ELLN) Program has a significant impact on Key Stage 1 learners by enhancing their language skills —listening, speaking, reading, and writing. It strengthens literacy and numeracy abilities, helping learners build a solid foundation in phonics, vocabulary, and basic arithmetic. Additionally, the program fosters cognitive development through problem-solving and critical thinking, while promoting social and emotional growth through interactive activities. Overall, ELLN equips learners with the essential skills needed for academic success and prepares them for future learning.

Research Questions

The study's primary goal was to explore the Early Language, Literacy and Numeracy Program as a predictor of lifelong learning skills development among key stage 1 learners in CALABARZON to develop an instructional model. Specifically, it sought to answer the following questions:

1. What are the schools' profile and learner's profile in terms of the following:
    1.1. Schools' Profile;
        1.1.1. location;
        1.1.2. school-based management level;
        1.1.3. school size;
    1.2. Learners' Profile;
        1.2.1. grade level;
        1.2.2. sex; and
        1.2.3. socioeconomic status?
2. What is the level of implementation of the Early Language, Literacy and Numeracy program of instruction in terms of the following dimensions:
    2.1. Assessment and Evaluation;
    2.2. Curriculum and Instruction;
    2.3. Learning Environment;
    2.4. Parental and Community Involvement;
    2.5. Professional Development; and
    2.6. Teaching Strategies?
3. Are there any significant differences in implementing the Early Language, Literacy and Numeracy program of instruction when grouped according to schools' profile?
4. What is the level of competency of the key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction in terms of the following lifelong learning skills:
    4.1. Communication Skills;
    4.2. Creativity Skills;
    4.3. Critical Thinking Skills;
    4.4. Interpersonal Relationship Skills;
    4.5. Problem Solving Skills; and
    4.6. Self-Awareness Building Skills?
5. When grouped according to the learners' profile, is there any significant difference in the level of competency in the lifelong learning skills of the key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction?
6. Does the Early Language, Literacy and Numeracy program of instruction predict the development of lifelong learning skills of the key stage 1 learners in terms of:
    6.1 Communication Skills;
    6.2 Creativity Skills;
    6.3 Critical Thinking Skills;
    6.4 Interpersonal Relationship Skills;
    6.5 Problem Solving Skills; and
    6.6 Self-Awareness Building Skills?
7. What Instructional Model can be developed for the Early Language, Literacy and Numeracy Program as proposed by the researcher?

Methodology

Research Design

The study employed a mixed-methods research design, combining descriptive quantitative and qualitative methods. Descriptive research can be quantitative as it gathers quantifiable data to statistically analyze a population sample. While qualitative research explores, understands, and interprets people's experiences, behaviors, and social phenomena in a natural setting. Instead of using numerical data, qualitative research focuses on words, meanings, and interpretations to gain in-depth insights. In this study, the

predictors of lifelong learning skills among key stage 1 learners in CALABARZON were identified as the basis for developing an enhanced ELLN program of instruction.

Respondents

The research population was the kindergarten and grades 1 to 3 public school teachers and learners in the CALABARZON Region. The sample size was computed using the Cochran's Sample Size calculator. The researcher chose CALABARZON because this region has been conducting lifelong learning training and seminars, especially those pertinent to the outcomes —competency-based education —which are part of the ELLN program. This region used to reassess and re-examine if learners developed lifelong learning skills and determine the predictors of lifelong learning skills in key stage 1 learners.

Instrument

The study used a self-developed questionnaire as the primary data collection tool. There were two questionnaires: one for kindergarten to grade three teachers and the other for kindergarten to grade three learners. The first part of the questionnaire for the teachers focused on the respondents' profiles; the second part gathered information about the school profile; and the third part focused on the level of implementation of the Early Language, Literacy, and Numeracy (ELLN) Program of Instruction.

For the learners' questionnaire, the first part collected data on students' profiles, the second part addressed schools' profiles, and the third part evaluated the competency level of key stage 1 learners in CALABARZON who had undergone the ELLN Program of Instruction.

The questionnaire underwent two types of validation: content validity and concurrent and construct validity. To ensure content validity, the researcher sought the assistance of at least 5 experts who assessed and validated the instrument. For concurrent and construct validity, the questionnaire was pilot-tested on at least ten respondents who were not participants in the main data-gathering stage. The tool's reliability was confirmed through Cronbach's Alpha.

The questionnaires were specifically designed to suit their intended respondents. The teachers' questionnaire was administered to all kindergarten to grade three teachers involved in the ELLN Program of Instruction to gather insights on the implementation practices and school-level factors. Meanwhile, the learners' questionnaire was administered to Key Stage 1 learners from kindergarten to grade 3 to assess their competency levels in lifelong learning skills after completing the program. Both instruments served as essential tools for collecting quantitative and qualitative data to analyze the effectiveness and impact of the ELLN program.

Procedure

The researcher commenced the study by seeking the research adviser's approval. A rough draft of the research paper and the questionnaire were prepared and submitted for review. The research adviser provided suggestions and comments, after which a proposal defense was scheduled to further evaluate the study.

Following the successful proposal defense, the researcher sought official permission to conduct the study. A letter requesting authorization and endorsement was submitted to the DepEd Regional Office. Upon securing regional approval, letters were sent to the respective Schools Division Superintendents and the District Supervisors of the study areas.

Once formal permissions were granted, the researcher personally visited the selected schools and coordinated with the respondents to facilitate the administration of the questionnaires. Copies of the questionnaires were distributed to the teachers, while the researcher also conducted interviews and observed the key stage 1 learners directly.

The data collected from the teachers' survey questionnaires and learners' test results were systematically tabulated and analyzed using appropriate statistical treatments. Microsoft Excel was used to tally and organize the results efficiently. Furthermore, data obtained from in-depth interviews were transcribed from handwritten notes and analyzed through text analysis to ensure accurate interpretation of the qualitative responses.

Data Analysis

To determine the Early Language Literacy and Numeracy Program as a predictor of lifelong learning skills development among key stage 1 learners in CALABARZON, the researcher used the following statistical tools: the statistical software available online. To analyze the data and present its interpretation, the researcher used frequencies, percentages, means, weighted means, Likert scales, and Spearman's Rho. These statistical techniques were employed to expedite the analysis and interpretation of the gathered data.

For Problem 1, the frequency and percentage were used to determine the schools' and learners' profiles.

For Problem 2, mean scores were used to determine the level of implementation of the Early Language, Literacy and Numeracy program as a Program of Instruction.

For Problem 3, the Mann-Whitney U-Test was used to compare significant differences in the Early Language, Literacy and Numeracy program across schools grouped by location, School-Based Management Level, and school size.

For Problem 4, the mean score was used to determine the level of competency of key stage 1 learners who have undergone ELLN in lifelong learning skills, including communication, creativity, critical thinking, interpersonal relationship, problem-solving, and self-awareness.

For Problem 5, the Kruskal-Wallis H-Test was used to determine significant differences in the level of competency in lifelong learning skills among key stage 1 learners who had undergone the ELLN, grouped by grade level, sex, and socioeconomic status.

For Problem 6, linear regression was used to predict the development of lifelong learning skills of the key stage 1 learners.

Ethical Considerations

The following ethical considerations were taken into account when selecting the sample of teachers and kindergarten to grade 3 learners. Informed consent was obtained from all respondents. Participant anonymity was maintained in accordance with Republic Act No. 10173 (Data Privacy Act of 2012): the questionnaire did not require respondents' names. Participants retained the autonomy to decline participation. All participants' data are kept confidential, stored securely, and electronically protected using appropriate measures. By following the ethical considerations, the rights of all participants are protected.

Results and Discussion

This section is the presentation of the gathered data, divided into seven (7) parts. The first part dealt with the teachers' and learners' profiles. The second part pertained to the level of implementation of Early Language Literacy and Numeracy as a program in terms of the following dimensions: curriculum and instruction, teaching strategies, assessment and evaluation, professional development, parental and community involvement, and learning environment. The third part discussed the test for significant differences in the implementation of the Early Language Literacy and Numeracy program of instruction across school profiles, grouped by location, size, and School-Based Management level. The fourth part explained the level of competency of the key stage 1 learners who have undergone the ELLN in terms of the following lifelong learning skills: communication skills, creativity skills, critical thinking skills, interpersonal relationship skills, problem-solving skills, and self-awareness-building skills. The fifth part discussed the test for significant differences in the level of competency in lifelong learning skills among key stage 1 learners who have undergone the ELLN, grouped by learners' profile (grade level, sex, and socioeconomic status). The sixth part focused on the Early Language, Literacy and Numeracy Program of instruction as a predictor of the development of lifelong learning skills of the key stage 1 learners. The last part comprised the ELLN instructional model, developed based on the study's findings.

Part I. Schools' Profile and Learners' Profile

Schools' Profile

Schools' Profile in Terms of Location

There is an equal distribution of respondents by school location: five schools (50%) are in central areas, and five (50%) are in non-central areas. This balance highlights differences in school location, which may have implications for learners' academic performance.

The equal distribution of respondents across school locations —five schools (50%) in central areas and five (50%) in non-central areas —ensures that the study captures a balanced representation of learners' contexts. Such a balance minimizes sampling bias and provides a sound basis for comparing the potential influence of school location on academic performance. Location is an important factor in education, as schools in central areas are generally better resourced, with better infrastructure and access to support services.

In contrast, non-central schools may encounter challenges such as limited facilities, fewer extracurricular opportunities, and geographic isolation, which can affect learners' participation, engagement, and achievement. Including schools equally from both central and non-central areas allows for a clearer understanding of how contextual differences contribute to academic outcomes.

Research (Okoli & Ogbondah, 2025; Santos, 2022) revealed that school location significantly influences student outcomes. For instance, a 2025 study by Okoli in Bayelsa State, Nigeria, reported a positive correlation ($r = 0.416$) between school location and academic achievement, suggesting that students in more accessible schools tend to perform better.

Similarly, a 2022 study by Santos in Cebu, Philippines, found that students living farther from school had lower mathematics performance, underscoring the impact of distance and accessibility on learning. In response to these challenges, the Department of Education (DepEd) has implemented Alternative Delivery Modes (ADM) to support learners in remote areas. However, its effectiveness largely depends on the quality of instructional materials and teacher preparedness. Based on the school profile in this study, learners from less accessible areas may encounter similar difficulties, underscoring the need for targeted interventions, such as improving infrastructure, strengthening teacher support, and adopting contextualized learning strategies.

Table 1.1.1 presents the frequency distribution of respondents by School-Based Management Level. Most respondents were under the maturing level of School-Based Management Level implementation, with a frequency of 6 (60.00%). Those at the developing level had a frequency of 3 (30.00%), and 1 (10.00%) school was at the advanced level.

Table 1.1.1. *School's Profile in Terms of School-Based Management Level*

School-Based Management Level	*Frequency*	*Percentage (%)*
Developing	3	30.00%
Maturing	6	60.00%
Advanced	1	10.00%
Total	10	100.00%

The frequency distribution indicates that the majority of respondents are from schools at the maturing level of School-Based Management (SBM) implementation (60.00%), followed by the developing (30.00%) and advanced (10.00%) levels. This distribution aligns with findings from recent studies in the Philippines. For instance, a 2025 study (Reyes, 2025) conducted across public schools in the country revealed that schools with higher levels of SBM implementation tended to achieve better student outcomes, including moderately higher test scores and improved attendance, compared to schools with lower levels of SBM uptake. The study highlighted that greater stakeholder participation, local decision-making, and resource flexibility under SBM contributed to these improvements. However, challenges such as limited training for school heads and variable community support were noted.

Similarly, a study (Reyes, 2024) in the Schools Division of Lucena City revealed that SBM practices were most frequently observed at the maturing level, followed by the developing level, with the advanced level being the least represented. The study also identified challenges encountered in SBM implementation and recommended practical solutions to address these issues. The concentration of schools at the maturing stage of School-Based Management (SBM) underscores the need for targeted interventions to accelerate further progress. This includes enhancing training for school leaders to improve their leadership and management skills, increasing stakeholder engagement through active participation from teachers, parents, and the community, and ensuring equitable resource allocation to support SBM practices. By addressing these areas, schools can transition to the advanced SBM level, leading to improved educational outcomes.

Table 1.1.2. *School's Profile in Terms of School Size*

School Size	*Frequency*	*Percentage (%)*
Small	2	20.00%
Medium	3	30.00%
Large	5	50.00%
Total	10	100.00%

Table 1.1.2 shows the respondents' frequency distribution in terms of school size. The majority of the respondents came from the large schools in the area, with a frequency of 5 (50.00%). The Medium Schools registered a frequency of 3 (30.00%), and the small schools, a frequency of 2 (20.00%). The frequency distribution in Table 1.1.2 indicates that the majority of respondents (50.00%) are from large schools, followed by medium-sized schools (30.00%) and small schools (20.00%). Research suggests that school size can influence academic performance and resource allocation.

A study by Antoniou (2024) highlighted that smaller class sizes allow for more individualized attention, potentially improving academic outcomes. Conversely, larger schools may benefit from economies of scale, offering a broader range of extracurricular activities and specialized programs. However, the effectiveness of these advantages often depends on the quality of management and resource utilization.

In the Philippine context, the Department of Education has implemented various initiatives to address disparities between schools of different sizes. For instance, the Alternative Delivery Mode (ADM) program aims to provide educational opportunities to students in remote areas, regardless of school size. Nevertheless, challenges persist, including limited access to quality teaching materials and infrastructure, which can affect the learning experience in both small and large schools.

Understanding the impact of school size on educational outcomes is crucial for policymakers and educators. While larger schools may offer more resources and extracurricular opportunities, they may also face challenges related to student-teacher ratios and individualized attention. Smaller schools, on the other hand, might provide a more personalized learning environment but could struggle with limited resources. Tailored interventions that account for the unique characteristics of schools, based on their size, can help address these challenges and enhance the quality of education across all institutions.

Learners' Profile

Table 1.2.1 shows the frequency distribution of respondents by grade level. Grades 1, 2, and 3 had an equal distribution of respondents, with a frequency of 300 (26.88%). Two hundred fifty (250/32.73%) respondents were Kindergarten learners.

The distribution of respondents across grade levels —Kindergarten (250), Grade 1 (300), Grade 2 (300), and Grade 3 (300) —provides a comprehensive view of early education perspectives. A 2025 study (Kim and Jang) analyzed kindergarten teachers' perceptions of early childhood language and literacy education, highlighting the importance of listening, speaking, reading, and writing in early

education. Their research emphasized the need for targeted support in areas where discrepancies exist between teachers' perceptions and actual performance, particularly in writing and technical aspects of language development.

Table 1.2.1. *Learner's Profile in Terms of Grade Level*

Grade Level Handled	*Frequency*	*Percentage (%)*
Kindergarten	250	21.73%
Grade 1	300	26.09%
Grade 2	300	26.09%
Grade 3	300	26.09%
Total	1,150	100.00%

In the Philippines, a 2025 study evaluated teachers' perceptions of the first-year implementation of the MATATAG Curriculum, focusing on adaptation, challenges, and perceived impact on teaching and learning. The study found that teachers generally perceived the implementation as mostly effective, with moderate levels of adaptation and perceived impact. However, challenges such as time management, resource availability, and instructional pacing were noted, underscoring the need for ongoing support and professional development.

Understanding educators' perspectives across grade levels is crucial for informing curriculum development and instructional strategies. The findings from the studies reviewed highlight the importance of aligning teachers' perceptions with actual practices to enhance early childhood education. Addressing challenges such as resource availability and instructional pacing, as identified in the MATATAG Curriculum study, can further support effective teaching and learning in the early grades. Tailored professional development programs that consider the unique needs and experiences of educators at each grade level can contribute to improved educational outcomes for young learners.

Table 1.2.2. *Learners' Profile in Terms of Sex*

Sex	*Frequency*	*Percentage (%)*
Male	574	49.91%
Female	576	50.09%
Total	1,150	100.00%

Table 1.2.2 shows the frequency distribution of respondents by sex. There is nearly equal distribution of respondents by sex, with 576 females (50.09%). The remaining respondents were male, with a frequency of 574 (49.91%).

The gender distribution of respondents in Table 1.2.2 shows 576 females (50.09%) and 574 males (49.91%), reflecting a nearly equal balance between male and female learners. This balance provides a strong basis for examining whether gender has any bearing on learners' academic performance and participation in school activities. In the Philippine education sector, it is common to observe variations in learning outcomes and classroom engagement between genders. For instance, female learners are often reported to excel in language and literacy skills, while male learners may perform better in certain numeracy and spatial tasks. The near parity in gender representation in this study ensures that these patterns, if present, can be meaningfully explored without bias toward one group. Furthermore, such a balance highlights the importance of providing equal opportunities for both male and female learners to succeed, while also considering strategies that address gender-related learning needs. By doing so, schools can promote inclusivity, equity, and fairness in education, ensuring that learners, regardless of gender, are given adequate support to maximize their academic potential.

Several studies have documented the influence of sex on learners' academic outcomes. Bernardo (2019) noted that female learners generally achieve higher levels in language and literacy, aligning with international findings, while male learners perform better on some numeracy tasks. Similarly, Navarro and Chua (2020) emphasized that gender stereotypes in education can shape learners' self-concept, motivation, and eventual academic track choices at higher grade levels, underscoring the need for gender-responsive teaching strategies. At the global level, the Organisation for Economic Co-operation and Development (2019) reported that female learners consistently outperform male learners in reading. In contrast, male learners demonstrate comparative strength in mathematics and science. In the same vein, Stoet and Geary (2018) observed the persistence of gender gaps in education, noting that such patterns are often influenced by cultural norms and classroom practices rather than innate ability. These findings collectively underscore the importance of considering learners' sex in educational outcome analyses, as it provides insights into achievement patterns, socialization processes, and the broader goal of equity in education.

Table 1.2.3 shows the respondents' frequency distribution regarding socioeconomic status. Most respondents were in the middle-income level, with a frequency of 732 (63.65%). The high-level income learners had a frequency of 331, or 28.78%. Eighty-seven 87 or 7.57% were in the low-level income learners.

The socioeconomic status (SES) of students significantly influences their academic performance. A study by Munir et al. (2023) found that students from higher SES backgrounds tend to perform better academically, with parental income, education, and occupation

playing pivotal roles. Conversely, students from lower SES backgrounds often face challenges such as limited access to educational resources, which can hinder their academic achievement. In the Philippine context, a study by Gobena (2018) highlighted that family income and parental education levels are strongly correlated with students' academic performance. Students from families with higher income and education levels generally achieve better academic results. This underscores the importance of addressing socioeconomic disparities to improve educational outcomes.

Table 1.2.3. *Learner's Profile in Terms of Socioeconomic Status*

Socio-Economic Status	*Frequency*	*Percentage (%)*
High	331	28.78%
Middle	732	63.65%
Low	87	7.57%
Total	1,150	100.00%

Additionally, structural inequalities in education, such as limited access to quality schools and resources in low-income areas, exacerbate the impact of low SES on academic performance. These disparities contribute to achievement gaps between students from different socioeconomic backgrounds.

The findings indicate that middle-income students constitute the majority in the sample, which may reflect broader trends in the Philippine education system. Addressing the needs of low-income students is crucial, as they often face barriers to educational resources and support. Implementing targeted interventions, such as providing scholarships, improving access to learning materials, and enhancing parental involvement programs, can help mitigate the negative effects of low SES on academic performance. Furthermore, policies aimed at reducing educational inequalities can contribute to more equitable educational outcomes across different socioeconomic groups.

Part II. Level of Implementation of the Early Language, Literacy and Numeracy Program

Table 2.1. *Level of Implementation of Early Language, Literacy, and Numeracy Program in Terms of Assessment and Evaluation*

No.	*The school …*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Administers daily, weekly, monthly, and quarterly formative tests to evaluate the numeracy skills of the learners.	3.03	Moderately Implemented	4
2	Conducts authentic, project-based, and performance-based assessments to test the progress of the learners' numeracy skills.	3.04	Moderately Implemented	3
3	Administers numeracy tests twice or more within the year using the centralized, standardized, or localized tool.	3.30	Moderately Implemented	1
4	Utilizes other classroom-based assessment protocols that are effective in the schools.	3.16	Moderately Implemented	2
5	Ascertains the proper assessment for different kinds of learners and topics.	2.91	Moderately Implemented	5
	General Weighted Mean	3.09	Moderately Implemented	

Legend: *4.20–5.00 Fully Implemented; 3.40–4.19 Mostly Implemented; 2.60–3.39 Moderately Implemented; 1.80–2.59 Partially Implemented; 1.00–1.79 Not Implemented*

Table 2.1 shows the weighted mean level of implementation of the Early Language, Literacy and Numeracy program of instruction in assessment and evaluation. The general weighted mean of 3.09 had a verbal interpretation of "Moderately Implemented." This implies that the Early Language, Literacy and Numeracy program of instruction was moderately implemented in the schools.

The highest mean score was from the indicator "the school administers the numeracy tests twice or more within the year using the centralized, standardized, or localized tool," with a mean of 3.30. It indicates that the school assessed numeracy skills using various methods. Second in the rank was the statement that "the school utilizes the other classroom-based assessment protocols that are effective in the schools," with a mean of 3.16. It indicates that other classroom-based protocols were sought to supplement the Early Language, Literacy, and Numeracy program of instruction in implementation. Ranking third was the statement that "the school conducts authentic, project-based, and performance-based assessments to test the progress in numeracy skills of the learners," with a mean of 3.04. It shows that authentic, project-based, and performance-based assessments were the standard assessment techniques employed for the Early Language, Literacy, and Numeracy program of instruction.

The lowest mean score stated that "the school ascertains the proper assessment for different kinds of learners and topics," with a mean of 2.91. It implies that the Early Language, Literacy, and Numeracy program of instruction may integrate or apply differentiation to benefit the learners.

The Early Language, Literacy, and Numeracy (ELLN) program's assessment and evaluation components have been pivotal in shaping its implementation across Philippine schools. A study by Morata (2023) in Agdangan District found that assessment protocols were only partially implemented, highlighting the need for more robust strategies to effectively gauge student progress. Similarly, Emata (2024) emphasized the importance of supportive leadership in fostering learner-centered pedagogical practices, which include practical

assessment and evaluation methods. These studies underscore the need for continuous professional development and capacity building to enhance assessment strategies within the ELLN framework.

The findings suggest that while the ELLN program has established a solid foundation in assessment, improvements are needed. To enhance its effectiveness, it is recommended to develop differentiated assessment tools that address students' diverse learning needs, provide educators with continuous professional development on modern assessment practices, and foster teacher collaboration to share practical strategies. These steps can improve the overall assessment and evaluation processes, leading to better educational outcomes for early learners.

Table 2.2. *Level of Implementation of Early Language, Literacy, and Numeracy Program in Terms of Curriculum and Instruction*

No.	*The school …*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Compares the implemented curriculum with the intended curriculum to ensure all competencies are covered.	3.02	Moderately Implemented	4
2	Evaluates teacher knowledge and skills in delivering early literacy and numeracy instruction.	2.89	Moderately Implemented	5
3	Daily or weekly activities such as oral reading, writing exercises, and numeracy drills are used to track progress.	3.15	Moderately Implemented	1
4	Tracks student engagement during lessons.	3.08	Moderately Implemented	3
5	Measures progress in literacy and numeracy skills over time.	3.14	Moderately Implemented	2
	General Weighted Mean	3.06	Moderately Implemented	

Legend: *4.20–5.00 Fully Implemented; 3.40–4.19 Mostly Implemented; 2.60–3.39 Moderately Implemented; 1.80–2.59 Partially Implemented; 1.00–1.79 Not Implemented*

Table 2.2 shows the weighted means of the level of implementation of Early Language, Literacy and Numeracy as a program of instruction in terms of curriculum and instruction. The general weighted mean was 3.06 with a verbal interpretation of "Moderately Implemented." It implies that Early Language Literacy and Numeracy, as a program of instruction, was moderately implemented in the schools.

The highest indicator, “uses daily or weekly activities such as oral reading, writing exercises, and numeracy drills to track progress," had a mean rating of 3.15. It indicates that the school conducted daily and weekly activities such as oral reading, writing exercises, and numeracy drills to ensure the instructional program was functional. Second in the rank was the indicator that "measures progress in literacy and numeracy skills over time with a mean of 3.14. It elucidates that progress in literacy and numeracy was implemented in schools. It could mean that the schools have good information or data management systems. Ranking third was the statement "tracks student engagement during lessons," with a mean of 3.08. It exemplifies effective monitoring of learners' development in numeracy and literacy.

The lowest indicator, "evaluates teacher knowledge and skills in delivering early literacy and numeracy instruction," had a mean of 2.89. It shows that a seminar must be held to enhance teachers' methods and strategies for delivering lessons in school as they perform their duties and responsibilities.

The Early Language, Literacy, and Numeracy (ELLN) Program has been a cornerstone of the Philippine Department of Education's efforts to enhance foundational learning among students from Kindergarten to Grade 3. DepEd Order No. 12, s. 2015 emphasizes the importance of developing literacy and numeracy skills to support lifelong learning, aiming to improve the reading and numeracy skills of K to 3 pupils and to establish a sustainable professional development system for teachers.

A study by Morata (2023) in Agdangan District, Quezon, assessed the implementation of the ELLN Program and found that it was moderately implemented, with teachers encountering moderate difficulties. The study recommended developing an action plan to enhance program implementation.

Emata (2024) explored the supportive leadership practices of supervisors in implementing the ELLN Program. The study highlighted the importance of fostering learner-centered pedagogical practices, providing a conducive learning environment, ensuring a balanced curriculum, capacity building, fostering multicultural awareness, and building connections. These practices were found to be crucial to the program's successful implementation.

The findings imply that while the ELLN Program has established a solid foundation in curriculum and instruction, there is a need for continuous improvement. To address the identified gaps, it is recommended to enhance differentiated instruction strategies to cater to diverse learners, provide ongoing professional development opportunities for teachers to improve their instructional skills, and encourage collaborative practices among educators to share effective teaching strategies. By addressing these areas, the ELLN Program can further strengthen its implementation and improve educational outcomes for early learners.

Table 2.3 shows the weighted mean level of implementation of Early Language, Literacy, and Numeracy as a program of instruction in terms of the learning environment. The general weighted mean was 3.15, with a verbal interpretation of "Moderately Implemented." This implies that the Early Language Literacy and Numeracy program of instruction was moderately implemented in schools.

Table 2.3. *Level of Implementation of Early Language, Literacy, and Numeracy Program in Terms of Learning Environment*

No.	*The school …*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Pairs experienced teachers with new teachers to provide guidance and support.	3.15	Moderately Implemented	4
2	Fosters a culture of continuous learning and professional growth.	2.76	Moderately Implemented	5
3	Collaborates with mentors and mentees to develop and implement effective teaching plans.	3.21	Moderately Implemented	3
4	Conducts regular assessments to evaluate the impact of the mentoring program on teaching quality.	3.40	Moderately Implemented	1
5	Emphasizes the substantial building of positive relationships between mentors and mentees.	3.23	Moderately Implemented	2
	General Weighted Mean	3.15	Moderately Implemented	

Legend: *4.20–5.00 Fully Implemented; 3.40–4.19 Mostly Implemented; 2.60–3.39 Moderately Implemented; 1.80–2.59 Partially Implemented; 1.00–1.79 Not Implemented*

The highest rater showed that "the school conducts regular assessments to evaluate the impact of the mentoring program on teaching quality," with a mean of 3.40. It highlighted that the school has a structured mentoring program, which affects teaching quality. It was followed by the statement stating that "the school emphasizes a substantial building of positive relationships between mentors and mentees," with a mean of 3.23. It showed that mentors and mentees must coordinate and cooperate to gain the Early Language, Literacy, and Numeracy outcomes. The third-ranked statement was "the school collaborates with mentors and mentees to develop and implement effective teaching plans," with a mean of 3.21. It elicited collaboration between the mentors and mentees to achieve the targeted teaching plans.

The lowest rate, with a mean of 2.76, stated that "the school fosters a culture of continuous learning and professional growth. " This shows that the school has a continuous learning process, which could boost student learning performance. The findings from Table 2.3 indicate that the Early Language, Literacy, and Numeracy (ELLN) program's implementation in terms of the learning environment is "Moderately Implemented," with a general weighted mean of 3.15. The highest-rated indicators —regular assessments to evaluate mentoring program impacts (mean = 3.40), positive mentor-mentee relationships (mean = 3.23), and collaborative development of teaching plans (mean = 3.21) —highlight the importance of structured mentoring and collaboration in enhancing teaching quality. However, the lowest-rated indicator—fostering a culture of continuous learning and professional growth (mean = 2.76) suggests a need for improvement in creating an environment that supports ongoing professional development.

Research (Darling-Hammond et al., 2017) supports these findings, highlighting that mentoring and continuous professional development play a vital role in improving teaching quality and enhancing student learning outcomes. A study by Combo and Ramos (2023) examined the role of teachers' mentoring in improving senior high school students' research competency, highlighting its positive impact on teaching quality. Similarly, a study by Frianeza et al. (2024) discussed the challenges in the Philippine educational system and their impact on teachers' instruction strategies and professional growth, underscoring the need for continuous professional development. Furthermore, the Philippine Professional Standards for Teachers (PPST) emphasizes the importance of continuous learning and professional growth for teachers.

To enhance the learning environment of the ELLN program, it is recommended to provide regular professional development focused on current educational practices, encourage teacher collaboration through professional learning communities, and strengthen mentoring programs to provide guidance and support. These strategies can foster continuous learning, improve teaching quality, and ultimately enhance student learning outcomes.

Table 2.4. *Level of Implementation of Early Language, Literacy, and Numeracy Program in Terms of Parental and Community Involvement*

No.	*The school …*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Donates or sponsors reading and numeracy materials.	2.96	Moderately Implemented	5
2	Participates in the establishment of community learning centers.	3.21	Moderately Implemented	1
3	Provides training and development programs for school heads, teachers, and other internal stakeholders.	3.11	Moderately Implemented	3
4	Renders service as a volunteer tutor in reading and numeracy activities launched or initiated by the school, such as the Brigada Pagbasa 2021.	3.16	Moderately Implemented	2
5	Serves as a partner for different income-generating projects, the proceeds of which will be used in implementing the ELLN program.	3.02	Moderately Implemented	4
	General Weighted Mean	3.09	Moderately Implemented	

Legend: *4.20–5.00 Fully Implemented; 3.40–4.19 Mostly Implemented; 2.60–3.39 Moderately Implemented; 1.80–2.59 Partially Implemented; 1.00–1.79 Not Implemented*

Table 5.4 shows the weighted mean level of implementation of the Early Language, Literacy, and Numeracy program of instruction in terms of parental and community involvement. The general weighted mean was 3.09, with a verbal interpretation of "Moderately

Implemented." This implies that the Early Language, Literacy, and Numeracy program of instruction was moderately implemented in the schools.

The topmost indicator, "the school participates in establishing community learning centers," has a mean of 3.21. It shows that the school has community linkages to involve the community and apply the Early Language, Literacy, and Numeracy program of instruction in the community where the school is located. The second rank elicited that "the school renders service as a volunteer tutor in reading and numeracy activities launched or initiated by the school, such as the Brigada Pagbasa 2021," with a mean of 3.16. It implies that activities were being conducted to implement the ELLN, such as the Brigada Pagbasa 2021. The third-ranked statement was "the school provides training and development programs for school heads, teachers, and other internal stakeholders," with a mean of 3.11. It shows that training and development programs were being undertaken or implemented to supplement the Early Language, Literacy, and Numeracy program of instruction.

The lowest indicator stated that "the school donates or sponsors reading and numeracy materials," with a mean of 2.96. It amplifies the need for the school to find sponsorship. The findings from Table 2.4 indicate that the Early Language, Literacy, and Numeracy (ELLN) program's implementation regarding parental and community involvement is "Moderately Implemented," with a weighted mean of 3.09. The highest-rated indicators-participation in establishing community learning centers (mean = 3.21), volunteering as tutors in reading and numeracy activities (mean = 3.16), and providing training and development programs for school stakeholders (mean = 3.11) highlight the importance of community engagement in enhancing teaching quality. However, the lowest-rated indicator—donating or sponsoring reading and numeracy materials (mean = 2.96) — suggests a need to improve resource security to support the program.

Research (Epstein, 2018) supports these findings, emphasizing the importance of community involvement in enhancing literacy and numeracy outcomes. For example, Dorado and Medina (2022) assessed the effectiveness of the Brigada Pagbasa program in Bansalan, Davao del Sur, and found that it significantly improved elementary pupils' reading skills. The study found that the program, which involved community volunteers in reading sessions, led to significant improvements in students' reading skills. Similarly, the ABC+ project, a USAID-funded initiative, supports community-based literacy programs by providing instructional materials and promoting home learning engagement.

To strengthen parental and community involvement in the ELLN program, it is recommended to develop strategies to secure donations and sponsorships for learning materials, foster partnerships with local organizations and businesses to support learning, and encourage parental engagement through workshops on supporting literacy and numeracy at home. These actions can create a more robust support system for the program, ultimately improving educational outcomes for early learners.

Table 2.5. *Level of Implementation of Early Language, Literacy, and Numeracy Program in Terms of Professional Development*

No.	*The school …*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Initiates training/seminars regarding early language, literacy, numeracy, and awareness of appropriate pedagogical practices.	2.84	Moderately Implemented	5
2	Designs training strategies to improve the teaching process and pedagogy in early language, literacy, and numeracy.	3.19	Moderately Implemented	1
3	Enriches the ability to assess learners' literacy and numeracy skills.	2.91	Moderately Implemented	3
4	Conducts action research related to early language, literacy, and numeracy.	2.87	Moderately Implemented	4
5	Sustains commitment to mentoring/sharing of teaching experiences to improve instruction and outcome.	3.09	Moderately Implemented	2
	General Weighted Mean	2.98	Moderately Implemented	

Legend: *4.20–5.00 Fully Implemented; 3.40–4.19 Mostly Implemented; 2.60–3.39 Moderately Implemented; 1.80–2.59 Partially Implemented; 1.00–1.79 Not Implemented*

Table 2.5 shows the weighted mean of the level of implementation of the Early Language, Literacy and Numeracy program of instruction in terms of professional development. The general weighted mean was 2.98 with a verbal interpretation of "Moderately Implemented." It implies that the Early Language, Literacy, and Numeracy program of instruction was moderately implemented in the schools.

The indicator with the highest score states that "the school designed training strategies to improve the teaching process and pedagogy in early language, literacy, and numeracy," with a mean of 3.19. It shows that strategies were employed to facilitate or differentiate the teaching process using the Early Language, Literacy, and Numeracy program of instruction. The following statement showed that "the school sustained commitment to mentoring/sharing of teaching experiences to improve instruction and outcome," with a mean of 3.09. It amplifies the fact that the teachers shared their experiences to exchange knowledge and expertise in applying the ELLN. On the third rank was the statement indicating that "the school enriches ability to assess learners' literacy and numeracy skills," with a mean of 2.91. It shows that learners were assessed according to the curriculum provided under the Early Language, Literacy, and Numeracy program of instruction.

The indicator with the lowest score states that "the school initiated training/seminars regarding early language, literacy and numeracy

and awareness of the appropriate pedagogical practices," with a mean of 2.84. It shows that there is training for the application and implementation of the ELLN in the school.

The Early Language, Literacy, and Numeracy (ELLN) Program, initiated by the Department of Education (DepEd) in 2015, aims to enhance the literacy and numeracy skills of learners from Kindergarten to Grade 3. A key component of this initiative is educators' professional development, which is crucial to the program's success, according to DepEd Order No. 12, s. In 2015, the ELLN program focused on capacitating teachers and instructional leaders with the necessary knowledge and pedagogical skills in literacy and numeracy. This includes establishing and managing a school-based mentoring/learning partnership program as a mechanism for continuous professional development.

The findings suggest that while the ELLN program has made strides in professional development, there is still room for improvement. To address the identified gaps, it is recommended to enhance the frequency and quality of training and seminars focused on early language, literacy, and numeracy. Additionally, strengthening mentoring programs and providing ongoing support for teachers can further improve instructional practices and student outcomes. By focusing on these areas, the ELLN program can better equip educators to meet learners' diverse needs and achieve its objectives.

Table 2.6. *Level of Implementation of Early Language, Literacy, and Numeracy Program in Terms of Teaching Strategies*

No.	*The school …*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Encourages teachers to self-reflect on their methods through journals and peer and mentor feedback discussions.	3.08	Moderately Implemented	4
2	Analyzes lesson plans for alignment with curriculum standards.	3.17	Moderately Implemented	2
3	Evaluates how training knowledge is applied in the classroom.	3.04	Moderately Implemented	5
4	Observes students' active involvement in lessons.	3.32	Moderately Implemented	1
5	Assess if teaching strategies lead to measurable student progress in numeracy and literacy.	3.15	Moderately Implemented	3
	General Weighted Mean	3.15	Moderately Implemented	

Legend: *4.20–5.00 Fully Implemented; 3.40–4.19 Mostly Implemented; 2.60–3.39 Moderately Implemented; 1.80–2.59 Partially Implemented; 1.00–1.79 Not Implemented*

Table 2.6 shows the weighted mean of the level of implementation of the Early Language, Literacy and Numeracy program of instruction in terms of teaching strategies. The general weighted mean is 3.15 with a verbal interpretation of "Moderately Implemented." This implies that the Early Language, Literacy, and Numeracy instruction program was moderately implemented in the schools.

The topmost indicator, "the school observes student active involvement in lessons," had a mean of 3.32. It implies that the school closely monitors students' participation in the proper conduct of lessons. The following statement, "the school analyzes lesson plan for alignment with curriculum standards," had a mean of 3.17. It shows that the teachers in the schools follow their lesson plans religiously without failing to achieve effective implementation. The third-ranked statement was "Assesses if teaching strategies lead to measurable student progress in numeracy and literacy," with a mean of 3.15. It underscores the fact that school heads have efficient supervision and monitoring of the Early Language, Literacy, and Numeracy program of instruction.

The lowest indicator, "the school evaluates how training knowledge is applied in the classroom," had a mean of 3.04. It implies that the respondents gave the least preference for the allocation evaluation of training and knowledge. The Early Language, Literacy and Numeracy (ELLN) Program has been a cornerstone of the Philippine Department of Education's efforts to enhance foundational learning among students from Kindergarten to Grade 3. A key component of this initiative is the implementation of effective teaching strategies. Research (Bonwell & Eison, 2020) indicates that active student involvement is crucial for effective learning. Active learning methods, which require students to think, discuss, investigate, and create, have been shown to significantly improve engagement and deepen understanding. Furthermore, aligning lesson plans with curriculum standards ensures that classroom activities, discussions, and assessments directly support the mastery of key learning objectives, thereby fostering academic excellence (George, 2025). The findings imply that while the ELLN Program has made strides in implementing effective teaching strategies, there is a need for continuous improvement. To address the identified gaps, it is recommended to enhance evaluation mechanisms to assess the application of training in the classroom, ensuring that professional development translates into improved teaching practices. Additionally, fostering a culture of reflective practice among educators can further enhance the effectiveness of teaching strategies, leading to improved literacy and numeracy outcomes for students.

Part III. Significant Differences in Implementing the Early Language, Literacy and Numeracy Program when Grouped According to Schools' Profile

Table 3.1 shows the Mann-Whitney U-Test for the comparison of data gathered to evaluate the implementation of the Early Language, Literacy and Numeracy program, grouped by location. Regarding assessment and evaluation, with a p-value of 0.912, which is greater than the 0.05 significance level, there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across locations. Along with curriculum and instruction, the p-value was 0.793, which is greater than the 0.05

significance level; there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across locations. Regarding the learning environment, the p-value was 0.644, which is greater than the 0.05 significance level; there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across locations. Regarding parental and community involvement, the p-value was 0.548, which is higher than the 0.05 significance level; there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across locations.

Table 3.1. *Comparison of the Early Language, Literacy, and Numeracy Program Implementation when Grouped According to Location*

Indicator	*Location*	*Mean Rank*	*U Statistic*	*p-value*	*Decision*	*Interpretation*
Assessment and Evaluation	Central	93.92	4282.500	0.912	Failed to Reject Ho	Not Significant
	Non-Central	93.06				
Curriculum and Instruction	Central	94.51	4227.000	0.793	Failed to Reject Ho	Not Significant
	Non-Central	92.45				
Learning Environment	Central	95.27	4154.500	0.644	Failed to Reject Ho	Not Significant
	Non-Central	91.65				
Parental and Community Involvement	Central	95.80	4104.000	0.548	Failed to Reject Ho	Not Significant
	Non-Central	91.10				
Professional Development	Central	95.05	4175.500	0.686	Failed to Reject Ho	Not Significant
	Non-Central	91.88				
Teaching Strategies	Central	91.78	4159.000	0.653	Failed to Reject Ho	Not Significant
	Non-Central	95.30				

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

In the professional development analysis, the p-value was 0.686, which is greater than the 0.05 significance level; there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across locations. Moreover, in the teaching strategies, the p-value was 0.653, which is higher than the 0.05 significance level; there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across locations.

The Mann–Whitney U test is a nonparametric statistical method used to compare differences between two independent groups when the dependent variable is ordinal or continuous but not normally distributed. It assesses whether the distributions of the two groups differ, focusing on differences in medians or overall distributions rather than means. A p-value greater than 0.05 indicates that there is no statistically significant difference between the groups under the null hypothesis. This aligns with the findings in Table 6.1, where p-values for various components of the Early Language, Literacy, and Numeracy (ELLN) program, such as assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies, all exceeded the 0.05 significance level, suggesting no significant differences based on location (Robins, 2025).

The lack of significant differences across locations suggests that the ELLN program's implementation is consistent across geographic areas. This uniformity suggests that the program's design and delivery mechanisms are robust and adaptable to different contexts. However, the absence of statistical significance also highlights the importance of considering other factors, such as school leadership, teacher training, and community engagement, which may influence the program's effectiveness. Future research could explore these variables to identify areas for improvement and ensure the program's success across diverse settings.

Table 3.2. *Comparison of Early Language, Literacy, and Numeracy Program Implementation when Grouped According to School-Based Management Level*

Indicator	*SBM Level*	*Mean Rank*	*K Statistic*	*p-value*	*Decision*	*Interpretation*
Assessment and Evaluation	Developing	87.93	0.747	0.688	Failed to Reject Ho	Not Significant
	Maturing	95.70				
	Advanced	89.26				
Curriculum and Instruction	Developing	89.16	0.678	0.712	Failed to Reject Ho	Not Significant
	Maturing	95.60				
	Advanced	87.61				
Learning Environment	Developing	87.55	0.653	0.721	Failed to Reject Ho	Not Significant
	Maturing	95.44				

	Advanced	91.79				
Parental and Community Involvement	Developing	85.81	1.459	0.482	Failed to Reject Ho	Not Significant
	Maturing	96.59				
	Advanced	87.32				
Professional Development	Developing	85.07	2.051	0.359	Failed to Reject Ho	Not Significant
	Maturing	97.18				
	Advanced	84.74				
Teaching Strategies	Developing	92.81	0.362	0.835	Failed to Reject Ho	Not Significant
	Maturing	94.67				
	Advanced	86.87				

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 3.2 shows the Kruskal-Wallis H-Test for the comparison of the implementation of the Early Language, Literacy and Numeracy program of instruction across School-Based-Management Levels. Regarding assessment and evaluation, the p-value was 0.688, higher than the 0.05 significance level. There is no significant difference in the implementation of the Early Language Literacy and Numeracy program of instruction across School-Based Management Levels. For curriculum and instruction, the p-value was 0.712, which was higher than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across School-Based Management Levels.

Moreover, regarding the learning environment, the p-value was 0.721, which is greater than the 0.05 significance level; there is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across School-Based Management Levels. Regarding parental and community involvement, the p-value was 0.482, more than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across School-Based Management Levels.

Along with professional development, the p-value was 0.359, more than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across School-Based Management Levels. Moreover, regarding teaching strategies, the p-value was 0.835, which is greater than the 0.05 significance level; there was no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across School-Based Management Levels.

The Kruskal-Wallis H-test is a non-parametric statistical method used to compare differences between more than two independent groups when the dependent variable is ordinal or continuous but not normally distributed. It assesses whether the distributions of the groups differ, focusing on differences in medians or overall distributions rather than means. A p-value greater than 0.05 indicates that there is no statistically significant difference between the groups under the null hypothesis. This aligns with the findings in Table 6.2, where p-values for various components of the Early Language, Literacy, and Numeracy (ELLN) program, such as assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies, all exceed the 0.05 significance level, suggesting no significant differences based on School-Based Management (SBM) level.

Research (Wiyono, 2025) supports these findings, highlighting the positive effect of SBM implementation on educational quality. For example, Torregosa (2023) conducted a study using the Kruskal–Wallis H-test to examine differences in SBM implementation among schools and found no significant differences, indicating that SBM practices were consistently and uniformly applied across the participating schools. The lack of significant differences across SBM levels suggests that the ELLN program's implementation is consistent across levels of SBM. This uniformity suggests that the program's design and delivery mechanisms are robust and adaptable to different contexts.

However, the absence of statistical significance also highlights the importance of considering other factors, such as school leadership, teacher training, and community engagement, which may influence the program's effectiveness. Future research could explore these variables to identify areas for improvement and ensure the program's success across diverse settings.

Table 3.3 presents the Kruskal-Wallis H-Test for the comparison of the implementation of the Early Language, Literacy, and Numeracy program of instruction across school sizes. The assessment and evaluation p-value was 0.960, more than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across school sizes. For curriculum and instruction, the p-value was 0.963, which was higher than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across school sizes.

Moreover, the learning environment's p-value was 0.898, more than the 0.05 significance level; there is no significant difference in the Early Language, Literacy, and Numeracy program of instruction implementation when grouped according to the size of the school. Along with parental and community involvement, the p-value was 0.828, more than the 0.05 significance level. There is no significant

difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across school sizes. Regarding professional development, the p-value was 0.878, higher than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across school sizes. Moreover, regarding teaching Strategies, the p-value was 0.880, more than the 0.05 significance level. There is no significant difference in the implementation of the Early Language, Literacy, and Numeracy program of instruction across school sizes.

Table 3.3. *Comparison of the Early Language, Literacy, and Numeracy Program Implementation when Grouped According to School Size*

Indicator	*Size of the School*	*Mean Rank*	*K Statistic*	*p-value*	*Decision*	*Interpretation*
Assessment and Evaluation	Small	93.92	0.082	0.960	Failed to Reject Ho	Not Significant
	Medium	92.33				
	Large	96.03				
Curriculum and Instruction	Small	93.31	0.075	0.963	Failed to Reject Ho	Not Significant
	Medium	92.24				
	Large	94.51				
Learning Environment	Small	92.03	0.215	0.898	Failed to Reject Ho	Not Significant
	Medium	91.56				
	Large	95.27				
Parental and Community Involvement	Small	89.67	0.377	0.828	Failed to Reject Ho	Not Significant
	Medium	91.45				
	Large	95.80				
Professional Development	Small	95.42	0.261	0.878	Failed to Reject Ho	Not Significant
	Medium	91.01				
	Large	95.05				
Teaching Strategies	Small	97.89	0.255	0.880	Failed to Reject Ho	Not Significant
	Medium	94.66				
	Large	97.89				

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

The Kruskal-Wallis H-test is a non-parametric statistical method used to compare differences between more than two independent groups when the dependent variable is ordinal or continuous but not normally distributed. It assesses whether the distributions of the groups differ, focusing on differences in medians or overall distributions rather than means. A p-value greater than 0.05 indicates that there is no statistically significant difference between the groups under the null hypothesis. This aligns with the findings in Table 6.3, where p-values for various components of the Early Language, Literacy, and Numeracy (ELLN) program, such as assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies, all exceeded the 0.05 significance level, suggesting no significant differences based on school size.

Research supports these findings, emphasizing the significance of school size in improving educational outcomes. A study by Zyngier (2014) found that smaller class sizes in the first four years of school can have an important and lasting impact on student achievement, especially for children from culturally, linguistically, and economically disadvantaged communities. This is particularly true when smaller classes are combined with appropriate teacher pedagogies suited to reduced student numbers.

The lack of significant differences by school size suggests that the ELLN program's implementation is consistent across school sizes. This uniformity suggests that the program's design and delivery mechanisms are robust and adaptable to different contexts. However, the absence of statistical significance also highlights the importance of considering other factors, such as school leadership, teacher training, and community engagement, which may influence the program's effectiveness. Future research could explore these variables to identify areas for improvement and ensure the program's success across diverse settings.

Part IV. Level of Competency of the Key Stage 1 Learners Through the Early Language, Literacy and Numeracy Program in terms of the Lifelong Learning Skills

Table 4.1 shows the weighted mean level of competency of key stage 1 learners through the Early Language, Literacy and Numeracy Program in terms of lifelong learning skills. In Communication Skills, with a general weighted mean of 2.84, with a verbal interpretation of "Moderate Competence", it implies that the respondents have a high level of competency as key stage 1 learners who have undergone the Early Language, Literacy and Numeracy Program, given the lifelong learning skills in the school.

The highest mean score was on the indicator "focuses on keywords in the question to give an accurate answer," with a mean of 2.87. It shows that the learners had a shallow understanding of the storyline. Ranking third was the indicator "retrieves information from

memory to provide a correct response," with a mean of 2.85. It implies that the learners may have difficulty comprehending the text. The low mean score was for the indicator "expresses thoughts clearly and appropriately," with a mean of 2.79. It implies that the storyline has complications or complexities.

Table 4.1. *Level of Competency of the Key Stage 1 Learners Have Undergone the Early Language, Literacy and Numeracy Program in Terms of the Lifelong Learning Skills as to Communication Skills*

No.	*Indicator*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Focuses on keywords in the question to give an accurate answer	2.87	Moderate Competence	1
2	Retrieves information from memory to provide a correct response	2.85	Moderate Competence	2
3	Understands and processes the question to find relevant information	2.87	Moderate Competence	1
4	Expresses thoughts clearly and appropriately	2.79	Moderate Competence	4
5	Analyzes the question and determines the best possible answer	2.84	Moderate Competence	3
	General Weighted Mean	2.84	Moderate Competence	

Legend: *4.20–5.00 Very High Competence; 3.40–4.19 High Competence; 2.60–3.39 Moderate Competence; 1.80–2.59 Low Competence; 1.00–1.79 Very Low Competence*

The Early Language, Literacy, and Numeracy (ELLN) Program is designed to strengthen foundational skills in young learners, especially communication, reading, and numeracy. A recent study by Lavador, Ferenal, and Comon (2024) in Talakag District 1, Bukidnon, found that kindergarten learners' performance in early language, literacy, and numeracy was nearing proficiency levels. The researchers also observed significant correlations between children's learning outcomes and background factors, particularly their mothers' educational attainment. This underscores the importance of early interventions in developing communication skills. International frameworks, such as the European Reference Framework, highlight the significance of literacy as a foundation for further learning and communication in various societal and cultural contexts. Competence in fundamental skills like language and literacy is essential for building overall learning competence.

Additionally, the European Commission's factsheet on key competences for lifelong learning emphasizes the role of literacy in strengthening communication abilities, which are crucial for active participation in society and the economy.

These findings highlight the need for targeted interventions to enhance communication skills among Key Stage 1 learners. Strategies such as incorporating interactive storytelling, promoting peer discussion, and engaging in activities that encourage verbal expression can foster a deeper understanding and improve the ability to express thoughts clearly. By addressing these areas, the ELLN Program can better support the development of essential communication skills, laying a strong foundation for lifelong learning.

Table 4.2. *Level of Competency of the Key Stage 1 Learners Who Have Undergone the Early Language, Literacy and Numeracy Program in Terms of the Lifelong Learning Skills as to Creativity Skills*

No.	*Indicator*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Recognizes and differentiates shapes	3.26	Moderate Competence	1
2	Identifies and recognizes different shapes in the environment	3.22	Moderate Competence	2
3	Encourages self-expression by using shapes to create unique artwork	3.19	Moderate Competence	3
4	Helps children identify and understand	3.08	Moderate Competence	4
5	Learns to take turns and cooperate with others	3.01	Moderate Competence	5
	General Weighted Mean	**3.15**	Moderate Competence	

Legend: *4.20–5.00 Very High Competence; 3.40–4.19 High Competence; 2.60–3.39 Moderate Competence; 1.80–2.59 Low Competence; 1.00–1.79 Very Low Competence*

Table 4.2 shows the weighted mean level of competency of key stage 1 learners through the Early Language, Literacy and Numeracy Program in terms of lifelong learning skills, specifically creativity. The general weighted mean was 3.15, with a verbal interpretation of "Moderate Competence." It implies that the respondents have moderate competence as key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction, given the school's lifelong learning skills.

The highest mean was on the indicator "identifies circle, square, triangle, and rectangle," with a mean of 3.26. This indicates that the majority of learners can easily recognize common shapes, demonstrating readiness for more advanced geometry concepts in higher grade levels. The following statement stated, "Describes a circle as round, a square as having four equal sides, a triangle as having three sides, and a rectangle as having two pairs of equal parallel sides", with a mean of 3.22. This shows that the learners are not only able to recognize shapes by name but can also differentiate them based on their defining characteristics, demonstrating an emerging ability to apply descriptive and analytical thinking in mathematics. Ranking third was the indicator "Identifies real-life objects with basic shapes " with a mean of 3.19. It implies that learners have the skill or ability to distinguish colors in a Shape Art Project. The indicator with a low mean "helps children identify and understand " with 2.87. This implies that the learners have the least preference

for using their markers or crayons to add details to their Art Project.

The development of creativity in early childhood is widely recognized as crucial for fostering lifelong learning skills. Engaging young learners in activities that promote creative thinking enhances their ability to express ideas, solve problems, and adapt to new situations. Incorporating shape recognition and art projects into early education not only supports mathematical understanding but also nurtures creativity and cognitive flexibility. Furthermore, art education allows young children to express themselves while also developing emotional resilience and fine motor skills (Williams, 2025).

These findings suggest that while learners demonstrate a moderate level of creativity competence, there is room for improvement. To further develop creativity skills, educators can incorporate diverse art materials and activities that encourage exploration and self-expression. Providing learners with opportunities to engage in open-ended projects and collaborative tasks can foster a deeper sense of creativity, supporting their overall development and preparing them for future learning experiences.

Table 4.3. *Level of Competency of the Key Stage 1 Learners Have Undergone the Early Language, Literacy and Numeracy Program in Terms of the Lifelong Learning Skills, as to Critical Thinking Skills*

No.	*The learners demonstrate…*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Individual critical thinking strategies.	2.87	Moderate Competence	2
2	An essential process in the transfer of knowledge.	2.72	Moderate Competence	9
3	The use of knowledge or skills learned in one subject to solve problems or advance understanding in another.	2.71	Moderate Competence	10
4	Learning to improve their creativity.	2.77	Moderate Competence	6
5	Most effective activities and exercises focus on critical thinking and problem-solving skills.	2.82	Moderate Competence	3
6	Self-regulation as a predictor of academic achievement.	2.97	Moderate Competence	1
7	Active participation in interventions to improve self-regulation can significantly enhance academic performance, especially in mathematics.	2.76	Moderate Competence	7
8	Social and emotional skills that are predictive of academic and career development.	2.78	Moderate Competence	5
9	The disparity between the school-entry academic skills of lower-income and higher-income households persists across elementary schools.	2.79	Moderate Competence	4
10	Interventions to improve these skills associated with improved critical thinking, problem-solving, and creativity performance.	2.73	Moderate Competence	8
	General Weighted Mean	2.79	Moderate Competence	

Legend: *4.20–5.00 Very High Competence; 3.40–4.19 High Competence; 2.60–3.39 Moderate Competence; 1.80–2.59 Low Competence; 1.00–1.79 Very Low Competence*

Table 4.3 shows the weighted mean level of competency of key stage 1 learners who have undergone the Early Language, Literacy and Numeracy Program of instruction in terms of lifelong learning skills, such as critical thinking. The general weighted mean was 2.79, with a verbal interpretation of "Moderate Competence." It implies that the respondents have a high level of competency as key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction, given the school's lifelong learning skills.

The indicator with the highest mean state, "the learners demonstrate self-regulation as a predictor of academic achievement," has a mean of 2.97. It shows that self-regulated learning is being applied in the Early Language, Literacy and Numeracy Program. The second indicator states that "the learners demonstrate individual critical thinking strategies," with a mean of 2.87. It implies that learners developed their critical thinking skills in schools as the ELLN was applied. Ranking third was that "the learners demonstrate the most effective activities and exercises focusing on critical thinking and problem-solving skills," with a mean of 2.82. It indicates that the ELLN covers the development and application of critical thinking and problem-solving skills to achieve higher learning outcomes.

The indicator with a low mean state that "the learners demonstrate the use of knowledge or skills learned in one subject and apply it to solve problems or advance understanding in another," with a mean of 2.71. It implies that the respondents least preferred the spiral progression in the curriculum or subject areas.

Critical thinking is a fundamental lifelong learning skill that enables individuals to analyze, evaluate, and synthesize information effectively. In early childhood education, fostering critical thinking involves encouraging children to engage in activities that promote problem-solving, reflection, and independent thought. Research (Fernández-Santín, 2020) indicates that early interventions aimed at enhancing critical thinking skills can improve academic performance and enhance adaptation to learning challenges. For instance, a study by Uyulan and Aslan (2024) demonstrated that preschool children aged 60-72 months showed significant gains in critical thinking when engaged in design-based STEM activities.

Additionally, a qualitative case study using a Socratic-method-based program with 5- to 6-year-old kindergarteners reported increased frequency of critical-thinking behaviors over a ten-week intervention (Kanat & Temel, 2025). Children who developed strong critical

thinking abilities are thus better equipped to navigate complex tasks and make informed decisions (Harris, 2025).

Furthermore, the development of self-regulation skills is closely linked to critical thinking. Self-regulation involves the ability to monitor and control one's emotions, thoughts, and behaviors in pursuit of long-term goals. In the context of early education, promoting self-regulation can enhance children's capacity for critical thinking by enabling them to focus attention, manage impulses, and persist through challenges.

The findings indicate that while learners demonstrate moderate critical thinking skills, there is room for improvement. To further develop these competencies, educators can implement strategies such as inquiry-based learning, which encourages children to ask questions, explore, and reflect on their experiences. Additionally, promoting self-regulation through activities that require focus and perseverance can strengthen the foundation for critical thinking. By integrating these approaches into the curriculum, the ELLN Program can better support learners in becoming adept critical thinkers, prepared for lifelong learning.

Table 1.4. *Level of Competency of the Key Stage 1 Learners Who Have Undergone the Early Language, Literacy and Numeracy Program in Terms of the Lifelong Learning Skills as to Interpersonal Relationship Skills*

No.	*The learners demonstrate…*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Trust by demonstrating honesty, reliability, and integrity in actions and words.	2.81	Moderate Competence	7
2	Encouragement, assistance, and understanding of others in times of need.	2.75	Moderate Competence	9.5
3	Values others' opinions, beliefs, and boundaries, treating them with dignity and consideration.	2.75	Moderate Competence	9.5
4	Works effectively with others towards common goals, fostering teamwork and cooperation.	2.78	Moderate Competence	8
5	Positive relationships with co-pupils.	2.83	Moderate Competence	5.5
6	Personal well-being and manages stress effectively to maintain healthy relationships.	3.00	Moderate Competence	1
7	Clear boundaries to protect personal values, needs, and limits in relationships.	2.89	Moderate Competence	2
8	Interpersonal interactions and relationships to identify areas for improvement.	2.83	Moderate Competence	5.5
9	Opportunities for personal development in communication and relationship skills.	2.85	Moderate Competence	4
10	Compassion and sensitivity towards others.	2.87	Moderate Competence	3
	General Weighted Mean	2.84	Moderate Competence	

Legend: *4.20–5.00 Very High Competence; 3.40–4.19 High Competence; 2.60–3.39 Moderate Competence; 1.80–2.59 Low Competence; 1.00–1.79 Very Low Competence*

Table 4.4 shows the weighted mean level of competency of key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction in the following lifelong learning skills, such as interpersonal relationships. The general weighted mean was 2.84, with a verbal interpretation of "Moderate Competence." It implies that the respondents have a high level of competency as key stage 1 learners who have participated in the Early Language, Literacy and Numeracy Program, which provided lifelong learning skills in the school.

The high mean score was on the indicator "the learners demonstrate personal well-being and manage stress effectively to maintain healthy relationships," with a mean of 3.00. It implies that learners could develop healthy relationships to support their well-being and stress management. The second indicator states that "the learners demonstrate clear boundaries to protect personal values, needs, and limits in relationships," with a mean of 2.89.

It amplifies that the learners were vulnerable enough to protect their personal values, needs, and limits in relationships. Ranking third was the indicator "the learners demonstrate compassion and sensitivity towards others," with a mean of 2.87. It suggests that the learners may be fostering concern for others and sensitivity in dealing with others.

The indicator with a low mean score states that "the learners demonstrate encouragement, assistance, and understanding to others in times of need" and "values others' opinions, beliefs, and boundaries, treating them with dignity and consideration" with the same means of 2.75. It implies that the learners already know the meaning of empathy and the value of other people around them.

Interpersonal relationships are fundamental to children's social-emotional development, influencing their ability to communicate effectively, collaborate, and navigate social contexts. Early childhood education programs that foster positive peer and adult-child interactions contribute significantly to the development of these skills. Research indicates that emotionally secure, responsive interactions with adults and peers promote emotional, cognitive, and social development, laying the groundwork for healthy interpersonal relationships.

Additionally, the development of interpersonal intelligence, which encompasses the ability to understand and interact effectively with

others, is crucial during early childhood. Educators can nurture this intelligence by engaging children in activities that promote empathy, communication, and collaboration.

These findings highlight the need for targeted interventions to enhance interpersonal relationship skills among Key Stage 1 learners. Educators can implement strategies such as role-playing, cooperative games, and guided discussions to promote empathy, effective communication, and conflict resolution. By fostering an environment that encourages positive interactions and emotional awareness, the ELLN Program can better support the development of strong interpersonal relationships, which are essential for lifelong learning and social success.

Table 4.5. *Level of Competency of the Key Stage 1 Learners Who Have Undergone the Early Language, Literacy and Numeracy Program in Terms of the Lifelong Learning Skills, as to Problem Solving Skills*

No.	*Problem-Solving*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Reinforces counting up	3.11	Moderate Competence	1
2	Understand cause and effect	2.94	Moderate Competence	3
3	Interprets simple real-world scenarios mathematically	2.97	Moderate Competence	2
4	Learns to break a problem into steps to find the solution	2.89	Moderate Competence	4
5	Understand that when it takes objects, the total decrease	2.84	Moderate Competence	5
	General Weighted Mean	2.95	Moderate Competence	

Legend: *4.20–5.00 Very High Competence; 3.40–4.19 High Competence; 2.60–3.39 Moderate Competence; 1.80–2.59 Low Competence; 1.00–1.79 Very Low Competence*

Table 4.5 shows the weighted mean level of competency of key stage 1 learners who have undergone the Early Language, Literacy and Numeracy Program in terms of lifelong learning skills, such as problem-solving. The general weighted mean was 2.95, with a verbal interpretation of "Moderate Competence." It implies that the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped by school.

The indicator with the highest mean states " reinforces counting", with a mean of 3.11. It indicates that the learners can perform subtraction as an arithmetic operation in mathematics. The indicator that follows states “interprets simple real-world scenario mathematically" with a mean of 2.97. It elicited that the learners gained mastery in subtraction and problem-solving. Ranking third was the indicator "learns to break a problem into steps to find the solution" with a mean of 2.94. It implies that the learners have gained proficiency in subtraction.

The lowest mean (rater) was the indicator "understands that when it takes away objects, the total decreases," with a mean of 2.84. It amplifies that the learners may have the least preference for this type of problem in mathematics. Problem-solving is a critical component of early childhood education, particularly in the development of mathematical and cognitive skills. Research indicates that engaging young learners in problem-solving activities enhances their ability to think critically, reason logically, and apply mathematical concepts to real-world situations. For instance, studies have shown that children who participate in structured problem-solving tasks demonstrate improved mathematical reasoning and a deeper understanding of numerical concepts (Roberts, 2025).

In the context of the Early Language, Literacy, and Numeracy (ELLN) Program, fostering problem-solving skills involves providing learners with opportunities to apply mathematical concepts, such as subtraction, to solve problems. This approach aligns with developmental theories that emphasize the importance of active learning and hands-on experiences in building cognitive skills.

The findings indicate that while learners demonstrate moderate competency in problem-solving, there is room for enhancement. To further develop these skills, educators can implement strategies such as inquiry-based learning, which encourages children to ask questions, explore, and reflect on their experiences. Additionally, providing opportunities for learners to engage in hands-on activities that involve real-world problem-solving can strengthen their understanding and application of mathematical concepts. By integrating these approaches into the curriculum, the ELLN Program can better support learners in becoming adept problem solvers, prepared for lifelong learning.

Table 4.6 shows the weighted mean competency level of key stage 1 learners who have completed the Early Language, Literacy, and Numeracy program, focusing on lifelong learning skills such as self-awareness development. The general weighted mean was 2.82, with a verbal interpretation of "Moderate Competence." It implies that the respondents have a high level of competency as key stage 1 learners who have participated in the Early Language, Literacy and Numeracy Program, which provided lifelong learning skills in the school.

The indicator with the highest mean states that "the learners demonstrate setting specific, achievable goals for personal development and regularly monitoring progress fosters self-awareness by increasing focus and motivation," with a mean of 2.92. It implies that the learners were able to demonstrate the SMART objectives. This is followed by the indicator "the learners demonstrate developing awareness of emotions, both your own and others', enhances emotional intelligence," with a mean of 2.87. It shows that the learners fostered emotional awareness with one another. On the third rank was the statement that "the learners demonstrate engaging in activities that promote personal growth and self-discovery, such as workshops, reading self-help books," with a mean of 2.85. It suggests that learners gain personal growth and self-help from their books.

Table 4.6. *Level of Competency of the Key Stage 1 Learners Who have Undergone the Early Language, Literacy and Numeracy Program in Terms of the Lifelong Learning Skills as to Self-Awareness Building Skills*

No.	*The Learners Demonstrate…*	*Weighted Mean*	*Verbal Interpretation*	*Rank*
1	Practicing mindfulness involves being present in the moment and observing thoughts, feelings, and sensations without judgment	2.84	Moderate Competence	4
2	Taking time to reflect on experiences, behaviors, and reactions helps identify patterns, strengths, weaknesses, and areas for improvement	2.80	Moderate Competence	6.5
3	Soliciting honest feedback from trusted individuals, such as friends, family, or mentors, provides valuable insights into how others perceive you and your actions	2.72	Moderate Competence	10
4	Developing awareness of emotions, both your own and others, enhancing emotional intelligence	2.87	Moderate Competence	2
5	Observing thoughts, behaviors, and reactions in different situations that helps uncover underlying motivations, triggers, and habitual patterns	2.80	Moderate Competence	6.5
6	Engaging in activities that promote personal growth and self-discovery, such as workshops or reading self-help books	2.85	Moderate Competence	3
7	Setting specific, achievable goals for personal development and regularly monitoring progress fosters self-awareness by increasing focus and motivation	2.92	Moderate Competence	1
8	Paying attention to how you communicate with others, including your tone, body language, and choice of words, enhances awareness of how your communication style impacts interactions	2.76	Moderate Competence	9
9	Embracing self-acceptance and compassion as you explore and understand your strengths	2.79	Moderate Competence	8
10	Engaging in continuous learning and personal development activities that challenge you to explore new perspectives and expand your self-awareness	2.81	Moderate Competence	5
	General Weighted Mean	2.82	Moderate Competence	

Legend: *4.20–5.00 Very High Competence; 3.40–4.19 High Competence; 2.60–3.39 Moderate Competence; 1.80–2.59 Low Competence; 1.00–1.79 Very Low Competence*

The indicator with the lowest mean states that "the learners demonstrate soliciting honest feedback from trusted individuals, such as friends, family, or mentors, provides valuable insights into how others perceive you and your actions," with a mean of 2.72. It implies that the learners elicited honesty and integrity at an early age.

Self-awareness is a foundational component of social-emotional learning (SEL) that significantly influences children's academic success, emotional regulation, and interpersonal relationships. According to the Collaborative for Academic, Social, and Emotional Learning (CASEL), self-awareness involves recognizing one's emotions, thoughts, and values and understanding how they influence behavior. This competency enables children to accurately assess their strengths and limitations, fostering a positive self-concept and confidence (Martinez, 2022).

In early childhood education, programs that promote self-awareness have been shown to enhance various aspects of development. For instance, the "Happiness Curriculum" implemented in Delhi's government schools focuses on mindfulness, emotional regulation, and relationship-building, aiming to improve students' mental well-being and academic performance. Similarly, the "Fun FRIENDS" program in Japan has demonstrated effectiveness in enhancing emotional regulation and social adaptation among preschoolers.

Furthermore, longitudinal studies (Blair & Raver, 2015; Eisenberg et al., 2019) indicate that self-regulation, a closely related skill, develops most rapidly between the ages of three and seven. These findings emphasize the importance of early interventions in fostering self-regulation, as it plays a crucial role in later academic achievement and emotional well-being. The findings indicate that while learners demonstrate moderate competency in self-awareness, there is room for enhancement. To further develop these skills, educators can implement strategies such as reflective journaling, mindfulness activities, and structured feedback sessions. Creating an environment that encourages self-reflection and open communication can help learners become more self-aware, thereby enhancing their overall development and preparedness for lifelong learning.

Part V. Significant Differences on the Level of Competency in the Lifelong Learning Skills of the Key Stage 1 Learners Have Undergone the Early Language, Literacy and Numeracy Program When They Are Grouped According to Learners' Profile

Table 5.1 presents the Kruskal-Wallis H-Test comparing the level of competency in lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, grouped by grade level. Regarding communication skills, the p-value was 0.520, more than the 0.05 significance level.

Table 5.1. *Level of Competency in the Lifelong Learning Skills of the Key Stage 1 Learners Through the Early Language, Literacy and Numeracy Program when Grouped According to Grade Level*

Indicator	*Grade Level*	*Mean Rank*	*K Statistic*	*p-value*	*Decision*	*Interpretation*
Communication Skills	Kindergarten	592.53	1.309	0.520	Failed to Reject Ho	Not Significant
	Grade One	568.21				
	Grade Two	568.17				
	Grade Three	576.30				
Creativity Skills	Kindergarten	581.01	0.393	0.822	Failed to Reject Ho	Not Significant
	Grade One	570.74				
	Grade Two	587.50				
	Grade Three	579.75				
Critical Thinking	Kindergarten	571.95	0.087	0.958	Failed to Reject Ho	Not Significant
	Grade One	577.82				
	Grade Two	572.21				
	Grade Three	573.99				
Interpersonal Relationship Skills	Kindergarten	565.88	1.427	0.490	Failed to Reject Ho	Not Significant
	Grade One	584.41				
	Grade Two	550.90				
	Grade Three	567.06				
Problem-Solving	Kindergarten	590.84	4.050	0.132	Failed to Reject Ho	Not Significant
	Grade One	577.13				
	Grade Two	519.70				
	Grade Three	562.56				
Self-Awareness Building Skills	Kindergarten	556.35	3.880	0.144	Failed to Reject Ho	Not Significant
	Grade One	576.60				
	Grade Two	626.36				
	Grade Three	553.10				

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

There is no significant difference in the level of competency in lifelong learning skills among key stage 1 learners who have undergone the Early Language, Literacy and Numeracy program of instruction, when grouped by grade level. Along with creativity skills, the p-value was 0.822, more than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped by grade level. Regarding critical thinking, the p-value was 0.958, higher than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped by grade level. According to interpersonal relationship skills, the p-value was 0.490, higher than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped by grade level. On problem solving, the p-value was 0.132, more than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped by grade level. Moreover, regarding self-awareness-building skills, the p-value was 0.144, which was greater than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped by grade level.

The Kruskal-Wallis H test is a non-parametric statistical method used to compare three or more independent groups to determine if there are statistically significant differences among them. It is beneficial when the assumptions of parametric tests, such as normality and homogeneity of variances, are not met. In educational research, this test has been employed to assess variations in competencies across different grade levels, school types, and demographic groups. For instance, studies have used the Kruskal-Wallis H test to examine differences in environmental literacy among pre-service teachers, finding no significant differences by grade level. Similarly, research on the 21st Century Skills Teaching Scale scores of Turkish teacher candidates found no significant differences across grade levels. These findings suggest that specific competencies may not vary significantly across grade levels, highlighting the need for targeted interventions to address specific skill gaps (Dela Cruz, 2024).

The absence of significant differences across grade levels suggests that the ELLN program provides a consistent foundation in lifelong learning skills for all learners, regardless of grade. This uniformity underscores the program's effectiveness in delivering essential competencies across various stages of early education. However, the moderate competency levels observed suggest that while the

program is effective, there is room for enhancement. Future iterations of the ELLN program could benefit from incorporating differentiated instructional strategies that cater to learners' diverse developmental needs across grade levels. Additionally, integrating more personalized learning experiences and formative assessments could further support the development of these lifelong learning skills, ensuring that all learners achieve higher levels of competency.

Table 5.2. *Level of Competency in the Lifelong Learning Skills of the Key Stage 1 Learners Have Undergone the Early Language, Literacy and Numeracy Program when Grouped According to Sex*

Indicator	*Sex*	*Mean Rank*	*U Statistic*	*p-value*	*Decision*	*Interpretation*
Communication Skills	Male	573.14	163,960.000	0.809	Failed to Reject Ho	Not Significant
	Female	577.85				
Creativity Skills	Male	562.18	157,665.000	0.171	Failed to Reject Ho	Not Significant
	Female	588.78				
Critical Thinking	Male	583.30	160,835.500	0.421	Failed to Reject Ho	Not Significant
	Female	567.73				
Interpersonal Relationship Skills	Male	569.11	161,641.500	0.513	Failed to Reject Ho	Not Significant
	Female	581.87				
Problem-Solving	Male	577.45	164,194.500	0.842	Failed to Reject Ho	Not Significant
	Female	573.56				
Self-Awareness Building Skills	Male	568.80	161,464.500	0.493	Failed to Reject Ho	Not Significant
	Female	582.18				

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 5.2 presents the Mann-Whitney U-Test comparing the level of competency in lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, grouped by sex. Regarding communication skills, the p-value was 0.809, more than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, when grouped by sex. Along with creativity skills, the p-value was 0.171, which is higher than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, when grouped by sex.

On critical thinking, the p-value was 0.421, more than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, when grouped by sex. Regarding interpersonal relationship skills, the p-value was 0.513, more than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, when grouped by sex. Along with problem-solving, the p-value was 0.842, which is higher than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, when grouped by sex. As for self-awareness-building skills, the p-value was 0.493, which was higher than the 0.05 significance level. There is no significant difference in the competency levels of lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, when grouped by sex.

The Mann–Whitney U test is a nonparametric statistical method used to determine whether there are significant differences between two independent groups on a continuous or ordinal dependent variable. It is beneficial when the data do not meet the assumptions required for parametric tests, such as normality. In educational research, this test has been utilized to assess gender differences in various competencies. For instance, a study examining teachers' lifelong learning tendencies and their attitudes towards technology use in education found significant gender differences in certain factors, such as "willingness to learn" and "openness to development. However, these findings are context-specific and may not directly apply to early childhood education settings.

In the context of early education, gender differences in lifelong learning skills have been examined, with several studies reporting that girls tend to outperform boys in reading and verbal abilities. For instance, the PISA 2018 results showed that girls consistently outperformed boys in reading across all participating countries. However, it is important to note that these findings largely reflect outcomes among older students and may not directly apply to Key Stage 1 learners (Ibrahim, 2024). The absence of significant differences between the sexes suggests that the ELLN program provides a consistent foundation in lifelong learning skills for all learners, regardless of sex. This uniformity underscores the program's effectiveness in delivering essential competencies across various demographic groups. However, the moderate competency levels observed suggest that while the program is effective, there is room for enhancement. Future iterations of the ELLN program could benefit from incorporating differentiated instructional strategies that cater to the diverse developmental needs of learners of different sexes. Additionally, integrating more personalized learning experiences and formative assessments could further support the development of these lifelong learning skills, ensuring that all learners achieve higher levels of competency.

Table 5.3. *Level of Competency in the Lifelong Learning Skills of the Key Stage 1 Learners Who Have Undergone the Early Language, Literacy and Numeracy Program when Grouped According to Socioeconomic Status*

Indicator	*Socio-Economic Status*	*Mean Rank*	*K Statistic*	*p-value*	*Decision*	*Interpretation*
Communication Skills	High	580.87	0.045	0.040	Reject Ho	Significant
	Middle	577.74				
	Low	536.21				
Creativity Skills	High	584.90	0.021	0.023	Reject Ho	Significant
	Middle	574.62				
	Low	547.16				
Critical Thinking	High	569.37	0.023	0.025	Reject Ho	Significant
	Middle	574.55				
	Low	606.78				
Interpersonal Relationship Skills	High	595.81	0.046	0.041	Reject Ho	Significant
	Middle	566.80				
	Low	571.44				
Problem-Solving	High	576.35	0.023	0.029	Reject Ho	Significant
	Middle	575.42				
	Low	572.96				
Self-Awareness Building Skills	High	601.13	0.038	0.039	Reject Ho	Significant
	Middle	559.46				
	Low	612.92				

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 4.3 presents the Kruskal-Wallis H-Test comparing the level of competency in lifelong learning skills among key stage 1 learners who participated in the Early Language, Literacy, and Numeracy program, grouped by socioeconomic status. Regarding communication skills, the p-value was 0.040, less than the 0.05 significance level. There is a significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped according to socioeconomic status. Regarding creativity skills, the p-value was 0.023, which is less than the 0.05 significance level. There is a significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped according to socioeconomic status. On critical thinking, the p-value was 0.025, less than the 0.05 significance level. There is a significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped according to socioeconomic status. Regarding interpersonal relationship skills, the p-value was 0.041, less than the 0.05 significance level. There is a significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped according to socioeconomic status. Regarding problem-solving, the p-value was 0.029, which is lower than the 0.05 significance level. There is a significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped according to socioeconomic status. Moreover, regarding self-awareness building skills, the p-value was 0.039, which is less than the 0.05 significance level. There is a significant difference in the competency levels of lifelong learning skills among key stage 1 learners who have participated in the Early Language, Literacy, and Numeracy program, when grouped according to socioeconomic status.

Socioeconomic status (SES) has been consistently linked to disparities in children's cognitive and academic development. Research landmark meta-analysis by Sirin (2005) found a moderate to strong positive relationship between SES and student achievement. More advantaged students consistently outperform peers from lower-SES backgrounds, indicating that children from lower-SES backgrounds often exhibit lower levels of academic achievement and slower rates of academic progress compared to their higher-SES peers. This gap is evident across domains, including literacy, numeracy, and critical thinking. For instance, a study by James-Brabham (2023) found that SES attainment gaps in mathematical ability are apparent in children as young as 3 years old and tend to widen over time. Factors such as working memory, inhibitory control, verbal ability, and frequency of home mathematical activities were identified as contributing to these disparities.

Furthermore, the American Psychological Association notes that lower SES is associated with lower academic achievement and slower academic progress. Children from lower SES backgrounds often have limited access to educational resources and experiences that promote cognitive development, which can hinder their academic success.

The significant differences observed across SES groups suggest that children from lower socioeconomic backgrounds may face challenges in developing specific lifelong learning skills, even when participating in structured programs such as ELLN. This

underscores the need for targeted interventions that address the specific needs of these learners. Such interventions could include providing additional support in areas where disparities are most pronounced, ensuring equitable access to resources, and fostering an inclusive learning environment that accommodates the diverse needs of all students. By implementing these strategies, educators can work to narrow the achievement gap and promote the development of lifelong learning skills across all socioeconomic groups.

Part VI. Dimensions of the Early Language, Literacy and Numeracy Program that Predict The Development of Lifelong Learning Skills of the Key Stage 1 Learners

Table 6.1. *Dimensions of Early Language, Literacy, and Numeracy that Predict the Development of Lifelong Learning Skills of the Key Stage 1 Learners in Terms of Communication Skills*

Independent Variables	*Regression Coefficient*	*p-value*	*Decision*	*Interpretation*
Constant	3.508	0.000	Reject Ho	Significant
Assessment and Evaluation	0.023	0.025	Reject Ho	Significant
Curriculum and Instruction	0.019	0.017	Reject Ho	Significant
Learning Environment	0.037	0.025	Reject Ho	Significant
Parental and Community Involvement	0.041	0.038	Reject Ho	Significant
Professional Development	0.428	0.039	Reject Ho	Significant
Teaching Strategies	0.018	0.015	Reject Ho	Significant

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 6.1 presents the linear regression of the significant factors predicting the development of lifelong learning skills in key stage 1 learners, specifically communication skills. According to the assessment and evaluation, the p-value was 0.023, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the development of lifelong learning skills. Regarding curriculum and instruction, the p-value was 0.017, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. In the learning environment, the p-value was 0.025, less than the 0.05 significance level. The early Language, Literacy, and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. Along with parental and community involvement, the p-value was 0.038, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. For professional development, the p-value was 0.039, which is less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. However, regarding teaching strategies, the p-value was 0.015, lower than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners.

Research emphasizes the importance of various factors in developing lifelong learning skills, especially communication, in early education. Regular assessments and evaluations provide critical feedback, while a well-structured curriculum and engaging instructional strategies stimulate cognitive development. A supportive learning environment, enriched by resources and positive interactions, encourages skill-building. Parental and community involvement bridges formal and informal learning, enhancing communication practice, while professional development for educators ensures they implement effective teaching methodologies. Diverse and adaptive teaching strategies also cater to individual learning styles, promoting engagement and skill growth. These elements collectively support the development of communication skills in Key Stage 1 learners (Roy, 2024).

The findings underscore the importance of a holistic approach in early education, where multiple factors converge to enhance communication skills. Educators and policymakers should consider integrating these elements to create a synergistic effect that supports comprehensive skill development. Future initiatives may focus on strengthening these areas to ensure that all learners have the opportunity to develop essential lifelong learning skills.

Table 6.2. *Dimensions of Early Language, Literacy, and Numeracy that Predict the Development of Lifelong Learning Skills of the Key Stage 1 Learners in Terms of Creativity Skills*

Independent Variables	*Regression Coefficient*	*p-value*	*Decision*	*Interpretation*
Constant	3.652	0.000	Reject Ho	Significant
Assessment and Evaluation	0.384	0.035	Reject Ho	Significant
Curriculum and Instruction	0.338	0.030	Reject Ho	Significant
Learning Environment	0.210	0.020	Reject Ho	Significant
Parental and Community Involvement	0.384	0.022	Reject Ho	Significant
Professional Development	0.034	0.026	Reject Ho	Significant
Teaching Strategies	0.388	0.036	Reject Ho	Significant

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 6.2 shows the Linear Regression of the significant factors that predict the development of lifelong learning skills in key stage 1 learners, specifically in terms of creativity skills. As for assessment and evaluation, the p-value was 0.035, which is less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the development of lifelong learning skills. Regarding curriculum and instruction, the p-value was 0.030, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. In the learning environment, the p-value was 0.020, less than the 0.05 significance level. The early Language, Literacy, and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. Along with parental and community involvement, the p-value was 0.022, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. For professional development, the p-value was 0.026, which was less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. Regarding teaching strategies, the p-value was 0.036, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners.

Research underscores the multifaceted factors influencing the development of lifelong learning skills, particularly creativity, in early education. The Early Language, Literacy, and Numeracy (ELLN) program, as indicated by the linear regression analysis in Table 6.2, shows that various components significantly predict improvements in creativity skills among Key Stage 1 learners. Regular assessments and evaluations provide critical feedback, while a well-structured curriculum and engaging instructional strategies stimulate cognitive development. A supportive learning environment, enriched by resources and positive interactions, encourages skill-building. Parental and community involvement bridges formal and informal learning, enhancing creative practice, while professional development for educators ensures they implement effective teaching methodologies. Diverse and adaptive teaching strategies also cater to individual learning styles, promoting engagement and skill growth. These elements collectively support the development of creativity skills in Key Stage 1 learners (Craft, 2021).

The findings underscore the importance of a holistic approach in early education, where multiple factors converge to enhance creativity skills. Educators and policymakers should consider integrating these elements to create a synergistic effect that supports comprehensive skill development. Future initiatives may focus on strengthening these areas to ensure that all learners have the opportunity to develop essential lifelong learning skills.

Table 6.3. *Dimensions of Early Language, Literacy, and Numeracy that Predict the Development of Lifelong Learning Skills of the Key Stage 1 Learners in Terms of Critical Thinking Skills*

Independent Variables	*Regression Coefficient*	*p-value*	*Decision*	*Interpretation*
Constant	3.555	0.000	Reject Ho	Significant
Assessment and Evaluation	0.033	0.039	Reject Ho	Significant
Curriculum and Instruction	0.032	0.035	Reject Ho	Significant
Learning Environment	0.045	0.037	Reject Ho	Significant
Parental and Community Involvement	0.039	0.040	Reject Ho	Significant
Professional Development	0.046	0.042	Reject Ho	Significant
Teaching Strategies	0.023	0.029	Reject Ho	Significant

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 6.3 presents the linear regression of the significant factors predicting the development of lifelong learning skills in key stage 1 learners, specifically critical thinking skills. Regarding assessment and evaluation, the p-value was 0.039, which is less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the development of lifelong learning skills. Regarding curriculum and instruction, the p-value was 0.035, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. In the learning environment, the p-value was 0.037, less than the 0.05 significance level. The early Language, Literacy, and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. Along with parental and community involvement, the p-value was 0.040, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. For professional development, the p-value was 0.042, which was less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. Regarding teaching strategies, the p-value was 0.029, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners.

This research underscores the critical role of various factors in fostering critical thinking skills among early learners. The Early Language, Literacy, and Numeracy (ELLN) program, as indicated by the linear regression analysis in Table 9.3, demonstrates that components such as assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies significantly predict the enhancement of critical thinking skills among Key Stage 1 learners. Regular assessments provide valuable feedback, enabling educators to tailor instruction to meet learners' needs. A well-structured curriculum, aligned with developmental milestones, promotes cognitive development. A supportive learning

environment encourages exploration and inquiry, essential for critical thinking. Active parental and community involvement reinforces learning and provides real-world contexts for applying critical thinking skills. Ongoing professional development ensures educators are equipped with current pedagogical strategies, enhancing their teaching effectiveness. Implementing diverse and adaptive teaching strategies caters to varied learning styles, fostering engagement and critical thinking. These elements collectively contribute to the development of critical thinking skills in early education (Moore, 2024).

The findings emphasize the importance of a holistic approach in early education, where multiple factors converge to enhance critical thinking skills. Educators and policymakers should consider integrating these elements to create a synergistic effect that supports comprehensive skill development. Future initiatives may focus on strengthening these areas to ensure that all learners have the opportunity to develop essential lifelong learning skills.

Table 6.4. *Dimensions of Early Language, Literacy, and Numeracy that Predict the Development of Lifelong Learning Skills of the Key Stage 1 Learners in Terms of Interpersonal Relationship Skills*

Independent Variables	*Regression Coefficient*	*p-value*	*Decision*	*Interpretation*
Constant	3.863	0.000	Reject Ho	Significant
Assessment and Evaluation	0.019	0.022	Reject Ho	Significant
Curriculum and Instruction	0.024	0.027	Reject Ho	Significant
Learning Environment	0.400	0.042	Reject Ho	Significant
Parental and Community Involvement	0.024	0.012	Reject Ho	Significant
Professional Development	0.020	0.040	Reject Ho	Significant
Teaching Strategies	0.030	0.038	Reject Ho	Significant

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 6.4 presents the linear regression of the significant factors predicting the development of lifelong learning skills in key stage 1 learners, specifically interpersonal relationship skills. Regarding assessment and evaluation, the p-value was 0.022, which is less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the development of lifelong learning skills. Regarding curriculum and instruction, the p-value was 0.027, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. In the learning environment, the p-value was 0.042, less than the 0.05 significance level. The early Language, Literacy, and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. Along with parental and community involvement, the p-value was 0.012, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. For professional development, the p-value was 0.040, which was less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. Regarding teaching strategies, the p-value was 0.038, lower than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners.

This research underscores the significance of various factors in fostering interpersonal relationship skills among Key Stage 1 learners. The Early Language, Literacy, and Numeracy (ELLN) program, as indicated by the linear regression analysis in Table 9.4, demonstrates that components such as assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies significantly predict the enhancement of interpersonal relationship skills. Regular assessments provide valuable feedback, enabling educators to tailor instruction to meet learners' needs. A well-structured curriculum, aligned with developmental milestones, promotes cognitive and social development.

A supportive learning environment encourages positive interactions and emotional growth. Active parental and community involvement reinforces learning and provides real-world contexts for applying interpersonal skills. Ongoing professional development ensures educators are equipped with current pedagogical strategies, enhancing their teaching effectiveness. Implementing diverse and adaptive teaching strategies caters to varied learning styles, fostering engagement and interpersonal skill development (Goleman, 2020).

The findings emphasize the importance of a holistic approach in early education, where multiple factors converge to enhance interpersonal relationship skills. Educators and policymakers should consider integrating these elements to create a synergistic effect that supports comprehensive skill development. Future initiatives may focus on strengthening these areas to ensure that all learners have the opportunity to develop essential lifelong learning skills.

Table 6.5 presents the linear regression of the significant factors predicting the development of lifelong learning skills in key stage 1 learners, specifically problem-solving skills. Regarding assessment and evaluation, the p-value was 0.010, which is less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the development of lifelong learning skills. Regarding curriculum and instruction, the p-value was 0.015, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. In the learning environment, the p-value was 0.039, less than the 0.05 significance level.

Table 6.5. *Dimensions of Early Language, Literacy, and Numeracy that Predict the Development of Lifelong Learning Skills of the Key Stage 1 Learners in Terms of Problem-Solving Skills*

Independent Variables	*Regression Coefficient*	*p-value*	*Decision*	*Interpretation*
Constant	3.299	0.000	Reject Ho	Significant
Assessment and Evaluation	0.380	0.010	Reject Ho	Significant
Curriculum and Instruction	0.370	0.015	Reject Ho	Significant
Learning Environment	0.445	0.039	Reject Ho	Significant
Parental and Community Involvement	0.225	0.034	Reject Ho	Significant
Professional Development	0.212	0.041	Reject Ho	Significant
Teaching Strategies	0.115	0.028	Reject Ho	Significant

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

The early Language, Literacy, and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. Along with parental and community involvement, the p-value was 0.034, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. For professional development, the p-value was 0.041, which was less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. Regarding teaching strategies, the p-value was 0.028, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners.

Problem-solving skills are crucial for early childhood development, serving as foundational elements for cognitive, social, and emotional growth. The Early Language, Literacy, and Numeracy (ELLN) program, as indicated by the linear regression analysis in Table 9.5, shows that various factors significantly predict improvements in problem-solving skills among Key Stage 1 learners. Regular assessments and evaluations provide valuable insights into children's developmental progress, enabling educators to tailor instruction effectively. A well-structured curriculum and instructional strategies that incorporate problem-solving tasks foster critical thinking and adaptability. A supportive learning environment encourages exploration and inquiry, essential for developing problem-solving abilities. Parental and community involvement reinforces learning and provides real-world contexts for applying problem-solving skills. Ongoing professional development ensures educators are equipped with current pedagogical strategies, enhancing their teaching effectiveness. Implementing diverse and adaptive teaching strategies caters to varied learning styles, promoting engagement and skill growth. These elements collectively contribute to the development of problem-solving skills in early education (Saavedra & Opher, 2024).

The findings underscore the importance of a holistic approach in early education, where multiple factors converge to enhance problem-solving skills. Educators and policymakers should consider integrating these elements to create a synergistic effect that supports comprehensive skill development. Future initiatives may focus on strengthening these areas to ensure that all learners have the opportunity to develop essential lifelong learning skills.

Table 6.6. *Dimensions of Early Language, Literacy, and Numeracy that Predict the Development of Lifelong Learning Skills of the Key Stage 1 Learners in Terms of Self-Awareness Building Skills*

Independent Variables	*Regression Coefficient*	*p-value*	*Decision*	*Interpretation*
Constant	3.653	0.000	Reject Ho	Significant
Assessment and Evaluation	0.0204	0.025	Reject Ho	Significant
Curriculum and Instruction	0.034	0.024	Reject Ho	Significant
Learning Environment	0.037	0.036	Reject Ho	Significant
Parental and Community Involvement	0.029	0.039	Reject Ho	Significant
Professional Development	0.045	0.043	Reject Ho	Significant
Teaching Strategies	0.038	0.033	Reject Ho	Significant

Note: "If the p-value is less than or equal to the significance level (0.05), reject Ho; otherwise, fail to reject Ho."

Table 6.6 presents the linear regression of the significant factors predicting the development of lifelong learning skills in key stage 1 learners, focusing on self-awareness-building skills. Regarding assessment and evaluation, the p-value was 0.025, which is less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the development of lifelong learning skills. Regarding curriculum and instruction, the p-value was 0.024, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. In the learning environment, the p-value was 0.036, less than the 0.05 significance level. The early Language, Literacy, and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. Along with parental and community involvement, the p-value was 0.039, less than the 0.05 significance level. The Early Language, Literacy and Numeracy program of instruction predicts the lifelong learning skills of the key stage 1 learners. For professional development, the p-value was 0.043, which is less than

the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners. However, regarding teaching strategies, the p-value was 0.033, less than the 0.05 significance level. The Early Language, Literacy, and Numeracy program of instruction predicts the development of lifelong learning skills in key stage 1 learners.

Self-awareness is a foundational component of social-emotional learning (SEL) and plays a pivotal role in the development of lifelong learning skills in early childhood education. Research (Zimmerman, 2020; Morin, 2023) indicates that fostering self-awareness in young learners enhances their ability to recognize and understand their emotions, thoughts, and behaviors, which in turn improves decision-making, emotional regulation, and interpersonal relationships. Programs such as the Early Language, Literacy, and Numeracy (ELLN) initiative demonstrate how self-awareness can be effectively nurtured through structured curricula, supportive learning environments, and active parental involvement. These programs employ strategies such as reflective journaling, mindfulness activities, and collaborative learning experiences to promote self-awareness among Key Stage 1 learners. The positive outcomes associated with these approaches underscore the importance of intentional SEL integration in early education settings (Goleman, 2020).

The findings highlight the critical role of a holistic approach in early education, where multiple factors converge to enhance self-awareness skills. Educators and policymakers should prioritize the integration of SEL components, particularly self-awareness, into early childhood curricula to support comprehensive skill development. Future initiatives may focus on strengthening these areas to ensure that all learners have the opportunity to develop essential lifelong learning skills.

Part VII. Instructional Model for Early Language, Literacy, and Numeracy Program

The instructional model for enhancing lifelong learning skills in Key Stage 1 learners, based on the study's findings, emphasizes a holistic approach that integrates several key factors identified in the implementation of ELLN. The model positions the ELLN program as the foundation, with its core dimensions serving as the structural components that support the development of lifelong learning skills. These dimensions include assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies.

Assessment and evaluation involve ongoing formative assessments to monitor learner progress, inform instructional strategies, and use performance-based tasks and learner self-check rubrics. This allows educators to provide immediate feedback and adjust teaching methods to meet learners' needs. The curriculum and instruction component focuses on a well-structured curriculum that fosters cognitive and social development through project-based learning, critical thinking tasks, inquiry-based lessons, project-based word tasks, creative stories, and peer tutoring. Differentiated instruction ensures that the diverse learning styles and abilities of all students are addressed, helping each child succeed at their own pace. It creates a supportive learning environment with classrooms designed to encourage collaboration, active participation, and emotional well-being. The environment provides opportunities for learners to explore literacy and numeracy corners, group collaboration centers, and reflective spaces for goal setting. Parental and community involvement play a crucial role in reinforcing the learning process by creating strong partnerships between the school, families, and the wider community. Such collaboration provides learners with opportunities to apply their skills in real-world contexts, extending learning beyond the classroom. Through initiatives like parent workshops and orientations, parent-child reading and math activities, and community-based reading or math clubs, parents and local organizations actively support students' academic and personal development. These engagements ensure that learners receive guidance, practice, and encouragement not only at school but also at home and within their communities, fostering holistic growth and lifelong learning skills. The model also highlights the importance of professional development for educators, offering regular opportunities for teachers to enhance their instructional skills, classroom management, and ability to integrate social-emotional learning into their teaching. By equipping teachers with up-to-date tools and strategies through INSETs, LAC sessions, peer mentoring and coaching, and sharing of best practices, they are better prepared to support student growth effectively.

Additionally, the model emphasizes interactive, student-centered teaching strategies, including cooperative learning, play-based and inquiry-based learning, role-plays, debates, collaborative tasks, and differentiated and scaffolded instruction. These approaches actively engage students in critical thinking, problem-solving, and creative activities, while simultaneously promoting independent learning, self-regulation, and the development of lifelong learning skills. By incorporating these strategies, teachers create a dynamic and inclusive learning environment that nurtures both academic mastery and holistic personal growth.

The instructional model targets six lifelong learning skills identified in the study: communication, creativity, critical thinking, interpersonal relationships, problem-solving, and self-awareness building, in addition to language literacy and numeracy skills. Each of these skills is nurtured through a variety of activities such as discussions, art projects, problem-solving scenarios, teamwork exercises, and self-reflection opportunities. By embedding these competencies across every aspect of the learning process, the model ensures that Key Stage 1 learners develop the essential skills for academic success and personal growth.

Conclusions

Based on the study's findings, the following conclusions were reached: There was an equal distribution of learners across central and non-central schools, and large schools had more advanced School-Based Management (SBM) implementation. Furthermore, most

learners were equally distributed across grades 1, 2, and 3, with a majority being female and coming from middle-income households. The Early Language, Literacy, and Numeracy (ELLN) program of instruction was moderately implemented across the following dimensions: assessment and evaluation, curriculum and instruction, learning environment, parental and community involvement, professional development, and teaching strategies. There were no significant differences in the implementation of the ELLN program across school profiles (e.g., location, school size, or SBM level), suggesting that these factors did not significantly affect the program's implementation. Key Stage 1 learners who participated in the ELLN program demonstrated moderate competence in various lifelong learning skills, including communication, creativity, critical thinking, interpersonal relationships, problem-solving, and self-awareness. While no significant differences were found in competency based on grade level or sex, socioeconomic status emerged as a significant factor, indicating that learners from different socioeconomic backgrounds exhibited varying levels of competency in lifelong learning skills. The study found that the ELLN program significantly predicts the development of lifelong learning skills in Key Stage 1 learners across multiple dimensions, including communication, creativity, critical thinking, interpersonal relationships, problem-solving, and self-awareness-building skills. The review of the ELLN program in CALABARZON suggests that the program is effectively contributing to the development of lifelong learning skills among learners. However, further enhancements and refinements could be made to address learners' varying needs, particularly those from lower socioeconomic backgrounds, to ensure that all students benefit from the program's full potential through an instructional model.

Based on the summarized findings, the following was recommended: Since the School-Based Management (SBM) level is assessed at the maturing level, schools could intensify efforts toward the advanced or sustaining levels by strengthening collaborative governance, data-driven decision-making, and active stakeholder participation. School heads and School-Based Management Level coordinators may participate in capacity-building programs on strategic planning, resource mobilization, and community partnership development. Moreover, schools should institutionalize monitoring and evaluation systems to track progress, assess the impact of School-Based Management level practices, and ensure continuous improvement aligned with the School Improvement Plan (SIP). Although the dimension of the Early Language, Literacy, and Numeracy program of instruction and professional development is moderately implemented, school administrators and education stakeholders may strengthen professional development by providing more regular, relevant, and research-based training aligned with teachers' needs. Given that the study found no significant differences in the implementation of the Early Language, Literacy, and Numeracy program of instruction across school profiles, it is recommended that the Department of Education maintain the uniformity and consistency of program delivery. Given that self-awareness-building skills among teachers are moderately competent, it is recommended that school leaders and training providers incorporate self-awareness development into professional development programs. The study also revealed significant differences in the implementation of the Early Language, Literacy, and Numeracy program of instruction across learners' profiles in terms of socioeconomic status; hence, it is recommended that schools and educational stakeholders implement targeted support programs that prioritize learners from low-income backgrounds. In general, the Early Language, Literacy, and Numeracy program significantly predicts the development of lifelong learning skills, including communication, creativity, critical thinking, interpersonal relationships, problem-solving, and self-awareness-building skills. Therefore, it should be enriched with more integrative and learner-centered approaches. Future researchers are encouraged to conduct similar studies exploring the ELLN program of instruction as a predictor, focusing on lifelong learning skills beyond those already examined, such as adaptability, initiative, collaboration, emotional regulation, leadership, digital literacy, and resilience.

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