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PEDAGOGICAL SUPPORT AND MONITORING AND ITS CONTRIBUTION TO THE DEVELOPMENT OF COMMUNICATION AND MATHEMATICAL SKILLS IN STUDENTS OF THE SECOND LEVEL OF REGULAR BASIC EDUCATION

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ABSTRACT: This study aimed to analyze the outcomes of pedagogical support and monitoring in the development of communication and mathematical competencies among second-level students of Regular Basic Education at the Carlos Fermín Fitzcarrald Local Education Management Unit (UGEL) in the Áncash region during 2024. The research used a quantitative, descriptive-comparative approach and a non-experimental design. The sample consisted of 30 teachers and 235 students from the initial level. Data collection involved analyzing documents from the Learning Achievement Assessment (ELA), supplemented by observation sheets and checklists. The results showed a significant decrease in the number of students at the beginning level and an increase in the level achieved in the assessed communication and mathematical competencies. It is concluded that pedagogical support and monitoring are relevant strategies for strengthening teaching practices and improving learning. However, challenges remain in formative assessment and the appropriate use of assessment instruments.

Keywords: pedagogical support, educational monitoring, learning achievements, early childhood education.

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INTRODUCTION

The results of the National Assessment of Learning Achievement (ENLA) in the Áncash region, specifically in the Carlos Fermín Fitzcarrald Local Education Management Unit (UGEL), show levels below expectations in the development of communication and mathematics skills. Out of a sample of 235 students assessed, 22 were at the expected achievement level, 166 at the "in progress" level, and 47 at the "beginner" level. The competencies "Writes various types of texts in their native language" and "Conducts scientific inquiry to build knowledge" had the highest number of students at the beginner level.

Catching up on learning is one of the main educational challenges in the wake of the pandemic. International organizations such as UNESCO (2023) and the OCDE (2022) have warned that gaps in reading comprehension and mathematical reasoning have widened significantly, especially in vulnerable contexts. In light of this situation, strategies for pedagogical support and teacher monitoring have become increasingly important mechanisms for strengthening educational practice and improving learning outcomes.

In Peru, the Ministry of Education has promoted various strategies to strengthen teachers' competencies through pedagogical support, monitoring, and formative assessment. However, significant gaps in learning outcomes persist, particularly in rural and hard-to-reach areas such as certain provinces in the Áncash region.

Despite the importance of pedagogical support for educational improvement, few comparative descriptive studies analyze outcomes in communication and mathematics competencies among early childhood students in rural contexts. In this regard, this research aims to provide evidence on the outcomes observed in the Carlos Fermín Fitzcarrald Local Education Management Unit (UGEL).

Class sizes by school range from 3 to 26 children per classroom, though this is not always the total number of children. Since education is a universal human right, wherever there is a child, there must be a school; however, even with inadequate government support, there are many shortcomings, both in infrastructure and in teaching materials. Teachers also face their

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own challenges. In recent years, there have been massive teacher appointments, which should be a strength; however, in terms of teaching practice (professional performance), the results are not as expected, given that student assessments are not encouraging. This suggests that some teachers do not demonstrate the expected commitment, continue to rely on traditional practices, or fail to prepare lessons tailored to their students' realities; instead, they obtain them from the internet. This creates an inequality gap in early childhood education, where children deserve equal opportunities and treatment.

In this regard, academic success is a priority among school administration's objectives to reverse these trends; action plans have included support and monitoring as strategies to ensure the use of teaching materials and resources to achieve learning outcomes, as well as the strengthening of professional competencies in best teaching practices, using active strategies that engage the learning of children in the region.

The activities planned for data processing included developing the learning achievement assessment plan (ELA, baseline, and follow-up), creating information-collection forms, and coordinating with Early Childhood Education administrators to guide on collecting diagnostic assessment data. In addition, compliance was monitored and supported via WhatsApp messages and phone calls to gather information. Ongoing coordination also took place via WhatsApp for sending forms and creating a Google Drive link to organize and share the results of the learning achievement assessment (Mendoza, 2022).

The overall objective of the research was to analyze the outcomes of pedagogical support and monitoring in the development of communication and mathematics competencies among students in the second level of Regular Basic Education within the Carlos Fermín Fitzcarrald Áncash Local Education Management Unit (UGEL) in 2024.

The actions and strategies implemented helped reverse the initial figures, with children as the primary beneficiaries—a development that promotes community progress and strengthens administrators' and teachers' commitment. In this context, learning achievements are the results attained by students after engaging in meaningful learning experiences, informed by self-reflection and teacher guidance on the knowledge acquired, the abilities developed, and the skills mastered (Ministerio de Educación del Perú, 2023).

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DEVELOPMENT

The implementation of the Learning Achievement Assessment (ELA) Plan took place in the following stages: the development of the Learning Achievement Assessment (ELA) Plan, the creation of data collection forms, and coordination with Early Childhood Education administrators to provide guidance on data collection for the diagnostic assessment. In addition, compliance with the activities was monitored and supported through WhatsApp messages and phone calls to collect information for the Learning Achievement Assessment (exit), as well as coordination via WhatsApp for sending forms and creating the Drive link.

To compile the learning achievement results of students from all educational institutions, information was collected for the Learning Achievement Assessment (exit), reports on learning achievements were systematized, and the assessment results were shared with the pedagogical management team, culminating in the presentation of the report on the dissemination of the Learning Achievement Assessment (exit) results.

METHODOLOGY

The research was conducted using a quantitative, descriptive-comparative approach and a non-experimental design, as the results obtained at two assessment points (pre-test and post-test) were analyzed without manipulating variables (Hernández-Sampieri and Mendoza, 2018).

The population consisted of teachers and students in the second level of Regular Basic Education belonging to the Carlos Fermín Fitzcarrald Local Education Management Unit (UGEL) in the Áncash region. The sample comprised 30 teachers and 235 students from the early grades, selected through non-probabilistic convenience sampling.

The primary data collection method consisted of a documentary analysis of the Learning Achievement Assessment (ELA) reports. In addition, observation forms and checklists were used to monitor teaching practices.

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The instruments were validated through expert judgment and technical review by specialists in the field of education.

Descriptive statistics, including frequencies and percentages, were used to analyze the data using SPSS software, version 26.

From an ethical standpoint, the confidentiality of institutional information and the academic use of the results were guaranteed, in accordance with the ethical principles of educational research.

RESULTS

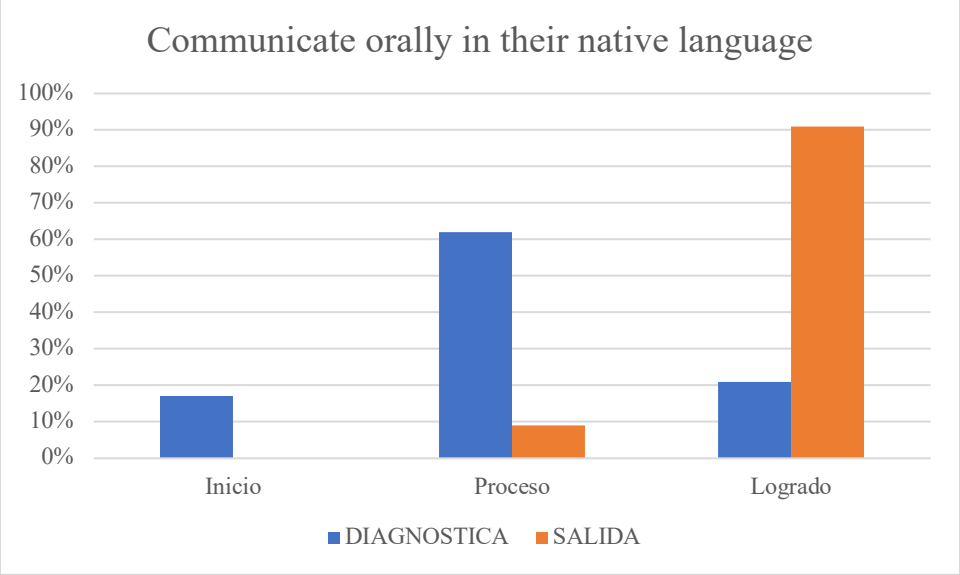
The pre- and post-tests of the Learning Achievement Assessment (ELA) show progress in student learning, as evidenced by a comparison of the results obtained on the diagnostic assessment and the post-test for the competency "Communicates orally in their native language."

At the entry level, the percentage of students—17% (40 students)—recorded in the diagnostic assessment at the beginning of the 2024 school year decreased gradually, reaching 0% (0 students) in the exit assessment. Similarly, at the process level, of the 62% (146 students) recorded in the diagnostic assessment, only 8.09% (20 students) remained at this level in the exit assessment.

On the other hand, at the achievement level—where 17% (40 students) were identified in the diagnostic assessment—a significant increase was observed, reaching 91% (217 students) in the exit assessment. Furthermore, potential limitations in the consistency of some assessment records were identified, stemming from differences in the administration of assessment tools and the evaluation criteria used by teachers.

Figure 1

Communicate orally in their native language.



In the competency "Write various types of texts in their native language," it is evident that, at the beginner level, the 81% (125 students) recorded in the diagnostic assessment at the start of the 2024 school year showed a gradual decline until reaching 0% (1 student) in the exit assessment. Similarly, at the "process" level, the 15% (36 students) recorded in the diagnostic assessment dropped to 9% (21 students) in the exit assessment.

On the other hand, at the achievement level—which stood at 4% (9 students) in the diagnostic assessment—there was an increase to 90.00% (213 students) in the exit assessment. In other words, while positive results are evident, some areas still require further strengthening. Furthermore, potential limitations were identified in the consistency of some assessment records due to differences in the application of assessment tools and criteria among teachers.

Figure 2

Writes various types of texts in their native language

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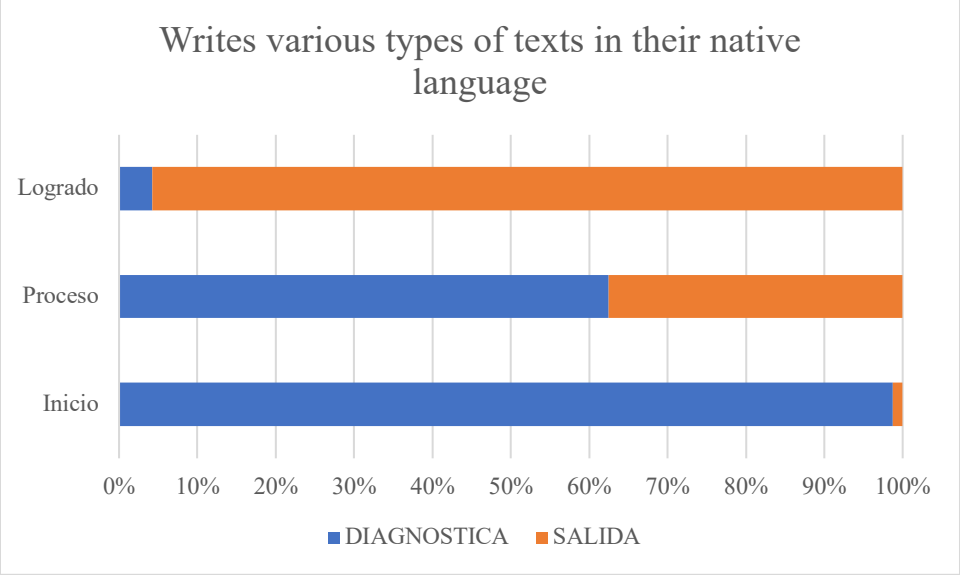

The results show progress in student learning, as evidenced by comparing the diagnostic and exit assessments for the competency "Solves quantity problems." Thus, at the baseline level, the 17% (40 students) recorded in the diagnostic assessment at the beginning of the 2024 school year decreased to 0.43% (1 student) in the exit assessment. Similarly, at the "process" level, the 68% (159 students) recorded in the diagnostic assessment dropped to 8.51% (20 students) in the exit assessment. On the other hand, at the achievement level—which stood at 17.00% (40 students) in the diagnostic assessment—an increase was observed, reaching 91.06% (214 students) in the exit assessment, indicating positive results. Likewise, potential limitations were identified in the consistency of some assessment records due to differences in the application of assessment tools and criteria among teachers.

Figure 3

Solving Quantity Problems

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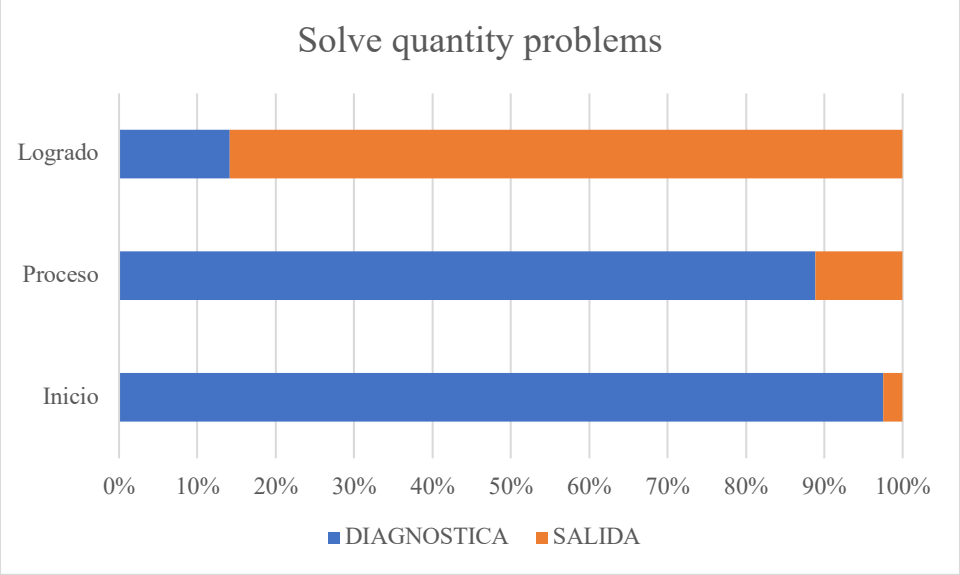

This can be seen by comparing the results of the diagnostic and exit assessments for the competency "Solves problems involving shape, movement, and location."

Thus, at the entry level, the 23% (55 students) recorded in the diagnostic assessment at the beginning of the 2024 school year decreased to 0.0% (0 students) in the exit assessment. Similarly, at the process level, the 60% (143 students) recorded in the diagnostic assessment dropped to 10.00% (20 students) in the exit assessment.

On the other hand, at the achievement level—which stood at 17.00% (40 students) in the diagnostic assessment—there is an increase to 90.00% (211 students) in the exit assessment. In other words, while positive results are evident, there is still a need to continue strengthening student learning. Furthermore, potential limitations were identified in the consistency of some assessment records due to differences in the application of assessment tools and criteria among teachers.

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Table 1

ELA Results

Competition	Start Diagnosis	Start Exit	Diagnosis Complete	Exit Complete
Communicates orally	17%	0%	17%	91%
Writes various types of texts	81%	0%	4%	90%
Solves quantity problems	17%	0.43%	17%	91.06%
Solves problems involving shape and location	23%	0%	17%	90%

Note. Prepared by the author based on the results of the 2024 ELA.

DISCUSSION OF RESULTS

The results of this study show a substantial improvement in students' achievement levels in communication and mathematics skills in the second cycle of Regular Basic Education (EBR) in the Carlos Fermín Fitzcarrald Local Education Management Unit (UGEL). In general terms, there was a significant reduction in the "beginning" level and a notable increase in the "proficient" level across all assessed competencies—in both communication and mathematics—suggesting the effectiveness of the implemented pedagogical support and monitoring program.

The results obtained are consistent with those of Acevedo et al. (2023), who argue that pedagogical support strengthens teacher performance and promotes improved learning in vulnerable educational contexts. They are also consistent with Gómez et al. (2019), who emphasize that meaningful learning depends on the teacher's ability to implement contextualized and relevant strategies.

Furthermore, the findings support the arguments of Baque-Reyes and Portilla-Faican (2021), who note that strengthening pedagogical practices contributes significantly to the development of communication and mathematics skills among elementary school students.

In the “oral communication in one’s native language” competency, the decrease in the starting level from 17% to 0% and the increase in the achieved level to 91% demonstrate significant progress in the development of communication skills. This result is consistent with Ausubel's (1963) view that meaningful learning occurs when teachers appropriately guide the teaching process, fostering active construction of knowledge. In this regard, pedagogical support likely improved teaching practices by promoting more relevant, context-specific strategies.

Similarly, in the competency “writes various types of texts,” a dramatic change is evident: it went from 81% at the initial level to virtually being eliminated, with the achieved level rising to 90%. This finding suggests that teacher training initiatives and strengthened curriculum planning had a positive impact on the teaching of writing. It aligns with the observations of Baque-Reyes and Portilla-Faican (2021), who emphasize that the application of appropriate teaching strategies fosters the development of complex competencies such as textual production.

In mathematics, specifically in the “solves quantity problems” competency, the results also show a significant improvement, with the achieved level rising from 17% to 91%. This progress could be attributed to the incorporation of active strategies and the more efficient use of instructional resources, aspects promoted during the monitoring process. According to Bernabéu and Cònsul (n.d.), methodologies such as problem-based learning strengthen mathematical understanding by placing students in real-world problem-solving contexts.

However, despite the positive results, significant limitations have been identified that must be taken into account in the analysis. It is repeatedly noted that the data may not fully reflect reality due to some teachers' lack of honesty in record-keeping and the inadequate or non-existent use of assessment tools. This aspect introduces a potential bias into the results, thereby affecting the study's internal validity. Methodologically, this highlights weaknesses in the teachers’ assessment culture, particularly in formative assessment.

Likewise, difficulties were identified in using technological tools (such as Google Drive) and delays in providing information, suggesting that support should focus not only on pedagogical aspects but also on digital skills and time management.

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On the other hand, the high level of commitment (85.71%) among teachers and administrators is a key factor explaining the progress made. This finding reinforces the idea that pedagogical leadership and collaborative work are critical elements for improving learning, as noted by Acevedo et al. (2023) in the Latin American educational context.

In summary, the results confirm that pedagogical support and monitoring are effective strategies for improving learning outcomes; however, their actual impact depends on the quality of implementation, the objectivity of assessment, and the continuous strengthening of teachers' competencies. Therefore, it is necessary to foster a culture of authentic, evidence-based formative assessment to support continuous improvement in the educational process.

CONCLUSIONS

The results show improvements in the communication and math skills of the students assessed, with a significant reduction in starting levels and an increase in achievement levels.

Pedagogical support and monitoring are key strategies for strengthening teaching practices and promoting better learning outcomes.

The commitment of teachers and administrators was a key factor in implementing initiatives to improve student learning.

Challenges were identified regarding the implementation of formative assessment, the use of assessment instruments, and the management of digital tools for organizing information.

It is recommended that teacher training processes be strengthened in the areas of formative assessment, the use of learning evidence, and the use of digital tools to consolidate progress.

Study Limitations

This research has limitations stemming from its descriptive nature and the use of institutional records as the primary source of information. Furthermore, the sample comes from a single UGEL, so the results cannot be generalized to other educational contexts. Future research could incorporate explanatory or quasi-experimental designs that allow for a more in-depth analysis of the relationship between pedagogical support and learning outcomes.

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Practical Implications

The results provide evidence to inform decision-making in educational management, particularly regarding pedagogical support processes designed to improve student learning. They also suggest strengthening teachers' competencies in curriculum planning, formative assessment, and the pedagogical use of educational resources.

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