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RESEARCH ARTICLE

Model of Didactic Orientation for the Improvement of the form-Ative Evaluation of Teachers in An Educational Institution

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ARTICLE INFO	ABSTRACT			
Received: Sep 18, 2024	Formative assessment is established as a fundamental tool in the teaching			
Accepted: Nov 22, 2024	learning process, allowing educators to obtain relevant information to adjust and optimize their pedagogical practice, which significantly contributes to the academic			
Keywords	development of students. This study was conducted to analyze the relationship			
Didactic orientation Formative assessment Teaching-learning processes Quantitative methodol-ogy Academic performance	between didactic orientation and formative assess-ment, using an applied methodology with a quantitative approach, a non-experimental design, and a correlational-causal scope. The sample consisted of 30 students, and a questionnaire was used as the data collection instrument, analyzed with SPSS statistical software. The initial find-ings reveal that the didactic orientation variable achieved a maximum score of 100, with its di-mensions ranging between 6 and 40 points. Regarding the formative assessment variable, it also recorded a maximum score of 100, with dimensions varying between 6 and 35 points. In relation to students' perceptions of			
*Corresponding Author:	didactic orientation, 0% consider it poor, 6.67% rate it as fair, and 93.33% evaluate it as good. Concerning formative assessment, 3.33% rate it as poor, 26.67% as fair, and			
celia.quispea@epg.usil.pe	70% as good. Despite the positive quantitative results, the research concludes that the implementation of the didactic orientation model did not translate into a significant improve-ment in the perception and application of formative assessment by educators. These findings suggest the need to explore comprehensive pedagogical approaches and teacher training strate-gies that enhance the impact of formative assessment in educational practice.			

INTRODUCTION

Formative assessment plays an essential role in the educational field, enabling educators to evaluate and guide student performance consistently and effectively. In this sense, the design of a pedagogical orientation model that optimizes the practice of formative assessment emerges as a fundamental necessity in educational institutions. This model aims not only to enhance teachers' competencies in assessing students' academic progress but also to strategically use this feedback to adjust and refine their teaching methodology. Educators implement various methodologies and tactics that allow them to promote the achievement of specific objectives and concrete actions. To this end, they rely on a reference framework that guides them in planning and executing their activities within the institutions where they carry out their professional work.

It is essential for these professionals to consider whether the selected approach effectively adapts to individual particularities and the educational and social context in which they operate, and whether it is the most appropriate for achieving the desired outcomes. To reflect on this issue, it is crucial for educators to have a clear understanding of what a "model" and "educational orientation" entail, as well as a deep understanding of the distinctive elements that differentiate the various existing approaches.

Formative assessments play a fundamental role in promoting meaningful learning within the educational environment. However, classrooms are often dominated by traditional approaches that prioritize memorization, limiting the development of creativity and imagination, which negatively impacts the transfer of knowledge between teachers and students. Although it has been observed that teachers have the capacity to implement formative assessment, its application is limited due to a lack of clear pedagogical strategies, thereby reducing its effectiveness in teaching practice. In this context, research highlights the absence of a guiding framework that adequately directs formative assessment, a crucial aspect for students' academic progress. It is recommended that teachers incorporate various didactic strategies, such as promoting reading and engaging in diverse educational activities, to optimize teaching and learning processes (Mesino Mosquera & Araujo Iglesias, 2022) (Vásquez Rodríguez & Serrano, 2023).

Formative assessment and didactic orientation have consolidated as effective tools for optimizing the teaching-learning process. In Spain, their implementation has proven to be an efficient practice, as it has not only enhanced teachers' professional competencies but also facilitated students in gaining greater awareness of their own learning process and areas for improvement. (Pérez Pueyo et al., 2020) (Barboza Acuña, 2022). However, in Lima, there is evidence of a discriminatory trend in the application of formative assessment, stemming from a lack of strategies tailored to the specific needs of students. In this context, didactic orientation emerges as a key element to reinforce the effectiveness of formative assessment among teachers in educational institutions. In the Lambayeque region, many teachers still rely on traditional methods of quantitative evaluation, focused on numerical grades and mere repetition of memorized information. This approach limits the comprehensive development of students' skills and competencies, sidelining a more holistic view of learning. (Martínez Mínguez et al., 2019)

Likewise, the importance of providing effective feedback to students during their learning process has been emphasized. This practice allows them to understand their progress and the areas that need reinforcement more clearly, providing specific guidance to improve their academic performance. The implementation of a continuous and personalized formative feedback model is essential to enhance the quality of teaching and learning. Furthermore, in the context of virtual education, it is crucial to adapt formative assessment strategies to ensure the effectiveness of the educational process in digital environments. (Alva, 2020) (Barboza Acuña, 2022)

Various authors have established solid theoretical foundations for formative assessment, emphasizing that it should be a continuous process integrated into teaching practice to adjust instruction and optimize learning. Current assessment methods must align with five fundamental principles: clearly understanding and communicating learning objectives, implementing activities that demonstrate student progress, fostering peer knowledge exchange, providing useful and meaningful feedback for teachers, and promoting self-regulation of learning among students. Additionally, the importance of maintaining quality dialogue between educators and students is highlighted, as this factor is crucial for improving feedback and enhancing its positive impact on the learning process.

In this context, Bloom's Taxonomy theory focuses on facilitating students' acquisition of new skills and knowledge through a structured hierarchy that promotes deep and meaningful learning. These levels are designed to guide students from a basic understanding of concepts to application, analysis, synthesis, and critical evaluation, thereby ensuring a comprehensive development of their competencies. (Cambridge Assessement International Education, 2019) (Picón Zambora, 2020). This taxonomy has been essential for

teachers to understand how learning occurs in students and to adjust curricular planning to optimize the educational process. Additionally, it provides a valuable framework for assessing the level of cognitive development that students have achieved in a specific discipline, allowing educators to more accurately identify areas that require reinforcement and to promote deeper and more effective learning.

Cambridge Assessment International Education (IGCSE, 2019) emphasizes that Assessment for Learning is an integrated approach in teaching practice that provides feedback to both students and teachers in order to improve the educational process. This approach focuses on three key aspects: the student's learning objectives, their current level of performance, and their active role in the process. Feedback, whether informal (through oral comments) or formal (via written observations), plays a fundamental role. Furthermore, this type of assessment encourages active student participation in meaningful, individual, and collaborative evaluations, allowing them to reflect and make informed decisions about their future learning needs. (Cisneros Caicedo et al., 2022)

2. MATERIALS AND METHODS

This research is applied in nature and focuses on developing practical solutions to optimize the didactic orientation model and formative assessment for teachers, with the aim of promoting academic progress and improving school performance. (Cuenca et al., 2021). This type of research uses the results to address specific needs. A quantitative approach was adopted with a non-experimental design, meaning that variables were not manipulated, nor were controlled conditions established. Additionally, it has a cross-sectional design and a descriptive correlational-causal scope, allowing for the analysis of relationships between variables at a specific point in time without interfering in their natural development. Cvetkovic Vega et al. (2021), this approach allows for the evaluation of a specific moment and the analysis of the association between variables, providing a detailed view of the existing relationships without intervening in their natural behavior.

In a research project, the population is defined as the group of individuals who share specific characteristics and represent the main object of study. This group is fundamental for establishing the scope and relevance of the research, as it allows for the identification and analysis of patterns, behaviors, or phenomena within a given context. (García Riveros et al., 2021). Consequently, the population of this research consists of 86 fourth-grade secondary students from the Educational Institution. The selected sample included 30 students, obtained through non-probability convenience sampling.

It is operationalized into three dimensions: planning, implementation of strategies, and verification of effectiveness in students, evaluated using a 20-item questionnaire with Likert-type scales. The dependent variable, formative assessment, aims to promote conscious and autonomous learning among students. Hernandez Sampieri and Mendoza (2019), is structured into three dimensions: content knowledge, assessment skills, and continuous professional development, also evaluated through a 20-item questionnaire with Likert-type scales.

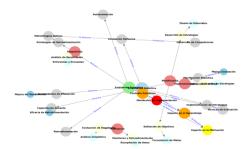


Figure 1. Semantic networks extracted from Atlas TI.

This modeling provides a comprehensive view of the interactions between the different stages, processes, and subprocesses of the didactic orientation model, facilitating its understanding and practical application to improve formative assessment in the educational context.

For data collection, a structured and validated survey was used, implemented through questionnaires designed in Google Forms and reviewed by experts. The collected data were organized in Microsoft Excel and analyzed using SPSS software, applying both descriptive and inferential statistics to validate the hypotheses. The reliability of the variables was high, with values of 0.934 for didactic orientation and 0.943 for formative assessment. The study was conducted following APA guidelines, ensuring the anonymity of respondents, the reliability of participating experts, and respecting copyright at all times.

The questionnaire consisted of a total of 40 items for each variable, covering their respective dimensions and indicators. Subsequently, the data were processed in Excel and SPSS, where a detailed analysis of the variables and dimensions was conducted, including the calculation of frequencies and percentages. Additionally, an inferential analysis was carried out to develop and evaluate specific hypotheses, using SPSS throughout the analytical process.

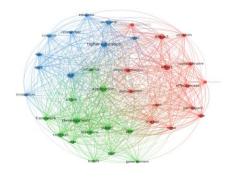


Figure 2. Bibliometric network extracted with VOS Viewer

3. RESULTS

Descriptive Analysis of the Variables

Distribution of Didactic Orientation Dimensions

Figure 3 shows that, out of 30 teachers in an Educational Institution in Chiclayo, 0% indicate that the planning of didactic orientation is poor, 6.67% believe it is fair, and 93.33% state that it is good. Regarding the implementation of didactic orientation strategies, 0% think it is poor, 6.67% think it is fair, and 93.33% think it is good. Meanwhile, concerning the verification of the effectiveness of didactic orientation, 0% indicate that it is poor, 6.67% state that it is fair, and 93.33% express that it is good.

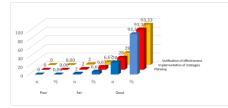


Figure 3. Percentage Distribution of the Didactic Orientation Dimension

Distribution of Didactic Orientation

In Figure 4, it is observed that, out of 30 teachers in an educational institution in Chiclayo, 0% indicate that the proposed didactic orientation is poor, 6.67% believe it is fair, and 93.33% express that it is good.

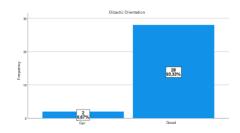
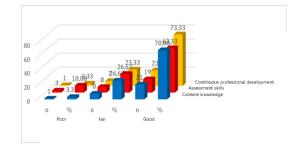
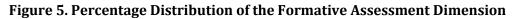


Figure 4. Percentage Distribution of the Didactic Orientation Dimension

Distribution of the Formative Assessment Dimension

In Figure 5, it is shown that, out of 30 teachers in an educational institution in Chiclayo, 3.33% indicate that their knowledge of the content of formative assessment is poor, 26.67% believe it is fair, and 70% express that it is good. Regarding assessment skills in formative assessment, 10% think it is poor, 26.67% think it is fair, and 63.33% think it is good. Meanwhile, concerning continuous professional development in formative assessment, 3.33% indicate that it is poor, 23.33% believe it is fair, and 73.33% express that it is good.





Distribution of the Formative Assessment Dimension

In Figure 6, it is observed that, out of 30 teachers in an educational institution in Chiclayo, 3.33% indicate that the proposed formative education is poor, 26.67% believe it is fair, and 70% express that it is good. it is shown that, out of 30 teachers in an educational institution in Chiclayo, 3.33% indicate that

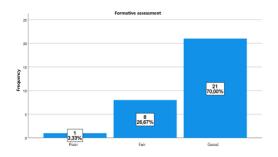


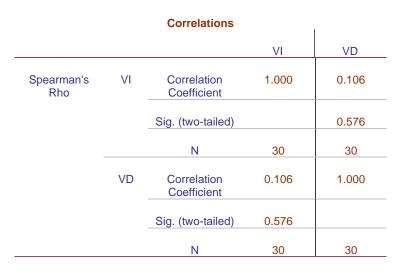
Figure 6. Percentage Distribution of the Formative Assessment

Inferential analysis of the variables

General hypothesis testing

Table 1 shows that the significance is 0.576 > 0.05, so the alternative hypothesis is accepted. This means that there is no significant relationship between the variables Didactic Orientation and Formative Assessment; one does not significantly affect the other. Additionally, the relationship is 0.106, indicating a very low positive correlation between both.

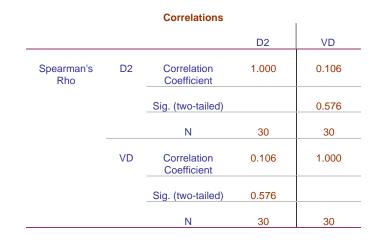
Table 1. General Hypothesis Testing



Specific Hypothesis Testing 1

Table 2 shows that the significance is 0.576 > 0.05, so the alternative hypothesis is accepted. This means that there is no significant relationship between the dimension Implementation of Strategies and the variable Formative Assessment; one does not significantly affect the other. Additionally, the relationship is 0.106, indicating a very low positive correlation between both.

Table 2. Specific Hypothesis Testing 1



Specific Hypothesis Testing 2

Table 3 shows that the significance is 0.576 > 0.05, so the alternative hypothesis is accepted. This means that there is no significant relationship between the dimensions Implementation of Strategies and Content Knowledge; one does not significantly affect the other. Additionally, the relationship is 0.106, indicating a very low positive correlation between both.

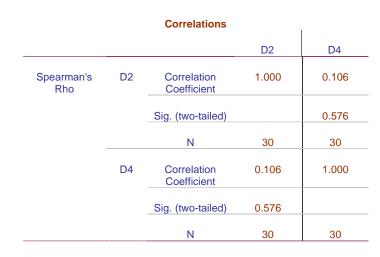


Table 3. Specific Hypothesis Testing 2

Specific Hypothesis Testing 3

Table 4 shows that the significance is 0.812 > 0.05, so the alternative hypothesis is accepted. This means that there is no significant relationship between the variable Didactic Orientation and the dimension Assessment Skills; one does not significantly affect the other. Additionally, the relationship is 0.045, indicating a very low positive correlation between both.

Table 4. Specific Hypothesis Testing 3

		Correlations		I
			VI	D5
Spearman's Rho	VI	Correlation Coefficient	1.000	0.045
		Sig. (two-tailed)		0.812
		Ν	30	30
	D5	Correlation Coefficient	0.045	1.000
		Sig. (two-tailed)	0.812	
		Ν	30	30

4. DISCUSSION

The quality of the teaching-learning process currently faces significant challenges in the educational field. Improving the formative assessment of teachers is essential to raise educational standards and promote meaningful learning. In the Educational Institution of Chiclayo, a didactic orientation model was proposed to equip teachers with effective tools for conducting more efficient formative assessments.

The study results revealed that there is no significant relationship between didactic orientation and formative assessment, with a significance value of 0.576 and a correlation coefficient of 0.106, indicating a very low and non-significant positive correlation. When comparing these findings with previous research, both similarities and differences were identified. For instance, while some studies emphasize the need for structured guidelines for formative assessment, others report positive effects of specific didactic approaches on formative assessment and student academic performance. The low correlation observed in this study suggests a poor implementation of the proposed model and a possible lack of adequate teacher training.

Regarding the specific objectives, the professional development of teachers and the effectiveness of strategies to engage students in formative assessment were evaluated. The results showed a very low and non-significant positive correlation, similar to that obtained in the general objective. These findings highlight the need to review and adjust the teaching strategies and resources used by teachers in Chiclayo, incorporating successful elements from previous studies and providing ongoing and specific training that strengthens teachers' capacity to apply these tools effectively.

Furthermore, the importance of having a clear and structured framework to guide formative assessment was emphasized. The absence of this framework in current teaching practices appears to limit the effectiveness of the implemented strategies, negatively affecting the quality of the teaching-learning process. Therefore, a thorough review of the proposed didactic orientation model is recommended, integrating proven practices and providing continuous support to teachers to improve outcomes in formative assessment.

Additionally, it was found that specific didactic approaches generated positive effects on both formative assessment and students' academic performance. These results contrast with those obtained in our study, which could be explained by contextual differences and variations in teacher preparation levels. Furthermore, various studies highlighted the effectiveness of tools such as self-assessment and continuous feedback, which have proven to be fundamental in enhancing learning and developing metacognitive skills in students. (Joya, 2020). However, the low correlation observed in our study suggests an ineffective integration of these tools or insufficient teacher training. While didactic orientation is crucial for optimizing formative assessment, the results reflect that the current implementation of the model has not achieved the desired impact. This may be due to a lack of coherence between theory and practice, insufficient training for teachers, or the need to adjust strategies and tools more appropriately to the specific needs of the institution.

The second specific objective focused on evaluating the effectiveness of teaching strategies to engage students in formative assessment. The results revealed, once again, a very low and non-significant correlation, with a significance value of 0.576 and a correlation coefficient of 0.106. This indicates that the implemented strategies did not achieve a considerable impact on the active participation of students in the assessment process. (Hernandez Sampieri & Mendoza, 2019). It has been found that certain didactic orientations can improve student motivation and academic performance; however, these effects were not reflected in our results. This could be due to contextual differences and the level of teacher preparation, factors that may have influenced the effectiveness of the strategies implemented in our study. Ramos

Martínez and Rueda Beltran (2020), highlighted self-assessment and continuous feedback, but our results suggest inadequate integration or a lack of training in these tools.

The third specific objective was to identify the most appropriate teaching resources for formative assessment. The results showed a very low and non-significant correlation, with a significance value of 0.812 and a correlation coefficient of 0.045. Previous research, such as the study by [author/study name], has demonstrated the effectiveness of certain teaching resources in improving formative assessment and student performance, which contrasts with our findings and suggests that a review and adaptation of the resources used in the specific context of our research may be necessary. García Riveros et al. (2021) and Zapana Flores (2019) emphasize the importance of using specific tools and appropriate didactic approaches; however, our results indicate that these resources are not properly integrated in Chiclayo or that teachers lack the necessary training to implement them effectively.

In general terms, the results indicate that the teaching resources employed by teachers in Chiclayo have not been sufficiently effective in enhancing formative assessment. It is essential to reevaluate and adjust these resources, integrating successful practices from previous research and offering continuous and specialized training to teachers in order to strengthen their capacity to apply these tools efficiently in the formative assessment process.

5. CONCLUSIONS

In conclusion, this study determined that the implementation of a didactic orientation model does not produce significant improvements in the formative assessment of teachers at the Educational Institution of Chiclayo in 2024. The results reflect a significance of 0.576, exceeding the threshold of 0.05, which indicates a very low correlation of 0.106 between both variables. This suggests that didactic orientation does not have a considerable impact on formative assessment, as there is practically no relationship between these variables. Therefore, the implemented model does not effectively optimize the formative assessment of teachers in this educational institution.

Furthermore, it is concluded that the formative assessment activities currently used by teachers do not show a significant relationship with the strategies proposed in the didactic orientation model. The correlation test yielded a significance of 0.576, exceeding the critical value of 0.05, and a correlation of 0.106, indicating that the implemented strategies do not significantly influence the current assessment practices of teachers.

Additionally, it was observed that the elements considered for the development of the didactic orientation model do not show a significant relationship between the dimensions of strategy implementation and content knowledge. With a significance of 0.576 and a correlation of 0.106, it is concluded that the proposed strategies and content knowledge are not significantly related to improving formative assessment, indicating the need to review and adjust the model to better align with the needs of teachers.

Finally, it is concluded that the implementation of the didactic orientation model did not have a significant impact on the quality of feedback, student learning, and the formative assessment activities of teachers in the studied institution. The correlation test indicated a significance value of 0.812, greater than 0.05, with a correlation of 0.045, reflecting a practically non-existent relationship. This suggests that the proposed didactic orientation does not significantly influence these crucial aspects of formative assessment; therefore, it is recommended to review and improve the model to achieve a positive impact in these areas.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Conflicts of Interest: The authors declare no conflict of interest.

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