Journal for Re Attach Therapy and Developmental Diversities
eISSN: 2589-7799
2023 August; 6 (10s2): 1444-1453

Influence of Educational Management to Improve Formative Feedback and Investigation Skills

Fabiola Magdalena Félix Quispe[1], Nancy Elizabeth Alberca Pintado[2], Johnny Félix, Farfán Pimentel[3], Ruth Melania Ccanto-Curo[4], Lizbeth Giovanna Toribio Alejo[5]

[1]Magister, Universidad César Vallejo, University City. Av. Alfredo Mendiola, Lima- ,Peru. E-mail: ffq1802@gmail.com Orcid: https://orcid.org/0000-0002-1728-2900

[2]Doctora, National University of San Marcos, Mz F Lote 4 Urb. Las Begonia, S.M.P Lima. E-mail: nalbercap@unmsm.edu.pe Orcid: https://orcid.org/0000-0002-0543-1999

[3]Doctor, Universidad César Vallejo, Av. Del Parque Nº 640, Lima, Perú. E-mail: felix13200@hotmail.com Orcid: https://orcid.org/0000-0001-6109-4416

[4]Magister, National University of Enrique Guzman y Valle, Av. Enrique Guzmán y Valle N° 951, Cantuta - Chosica, Perú. E-mail: rccanto@une.edu.pe Orcid: https://orcid.org/0000-0003-3012-6918

[5]Magister, Universidad Peruana Los Andes. Calle Los Libertadores N°396, Urb. Valdivieso Ate- Vitarte, Lima- Perú.E-mail: glizbeth58@gmail.com Orcid: https://orcid.org/0000-0001-9677-9378

Received: 19- June -2023
Revised: 02- July -2023
Accepted: 10- August -2023

Abstract

Objective: The objective of the line of study was to determine influence of educational management to improve formative feedback and investigation skills of basic education students.

Theoretical framework: The improvement of research skills is essential for academic teaching in basic education. Investigative competencies as a set of capacities develop knowledge necessary to plan, execute and communicate an investigation.

Design/Methodology/Approach: The paradigm was positivist; the study was basic with a non-experimental, cross-sectional, correlational, causal, explanatory design, with a quantitative approach; the type of sampling, probabilistic. The sample consisted of 126 students; Data was collected through two questionnaires that passed their reliability and validity process: 0.794 obtained the formative feedback questionnaire and 0.808, investigative skills; therefore, they presented good reliability.

Findings: The result showed that 76.2% of the respondents demonstrated a level in progress on investigative skills and 92.1% were located at a medium level in relation to formative feedback. In addition, a Wald score of 22391.323 was reached with a p=.000, the fit of the model and Pseudo R2 indicated a Nagelkerke value of 0.260 and the contrast test of the likelihood ratio revealed that the logistic model is significant. with a X2 of 24,863.

Research, practical and social implications: The impact of this research is based on the possibility that educational institutions, in their pedagogical practice, aim to improve investigative skills.

Implications/Originality/Value: Acquiring investigative skills is essential to optimize investigative processes; For this reason, research in curricular design should be transversal to all areas.

Keywords: Formative feedback; investigative competencies; skills; discovery; sustainability**.**

INFLUÊNCIA DA GESTÃO EDUCACIONAL PARA MELHORAR FEEDBACK FORMATIVO E HABILIDADES DE INVESTIGAÇÃO

RESUMO

Objetivo: O objetivo da linha de estudo foi determinar influência da gestão educacional para melhorar feedback formativo e habilidades de investigação de alunos da educação básica.

Estrutura teórica: O aprimoramento das habilidades de pesquisa é essencial para o ensino acadêmico na educação básica. As competências investigativas como um conjunto de capacidades desenvolvem o conhecimento necessário para planejar, executar e comunicar a pesquisa.

Design/Metodologia/Aproximação: O paradigma era positivista; o estudo foi básico com desenho não experimental, transversal, correlacional, causal, explicativo, com abordagem quantitativa; o tipo de amostragem, probabilística. A amostra foi composta por 126 alunos; Os dados foram coletados por meio de dois questionários que passaram pelo processo de confiabilidade e validade: 0,794 obteve o questionário de feedback formativo e 0,808, habilidades investigativas; portanto, apresentaram boa confiabilidade.

Descobertas: O resultado mostrou que 76,2% dos respondentes demonstraram um nível em andamento nas habilidades investigativas e 92,1% situaram-se em um nível médio em relação ao feedback formativo. Além disso, uma pontuação de Wald de 22391,323 foi alcançada com um p = 0,000, o ajuste do modelo e Pseudo R2 indicou um valor de Nagelkerke de 0,260 e o teste de contraste da razão de verossimilhança revelou que o modelo logístico é significativo, com um X2 de 24.863.

Pesquisa, implicações práticas e sociais: O impacto desta pesquisa baseia-se na possibilidade de que as instituições formadoras, em sua prática pedagógica, visem aprimorar as habilidades investigativas.

Implicações/Originalidade/Valor: A aquisição de habilidades investigativas é essencial para otimizar os processos investigativos; Por isso, a investigação em desenho curricular deve ser transversal a todas as áreas.

Palavras-chave: feedback formativo; habilidades investigativas; habilidades; descoberta; sustentabilidade.

INFLUENCIA DE LA GESTIÓN PEDAGÓGICA PARA MEJORAR LA RETROALIMENTACIÓN FORMATIVA Y HABILIDADES INVESTIGATIVAS

RESUMEN

Objetivo: La línea de estudio tuvo por objetivo determinar la influencia de la gestión pedagógica para mejorar la retroalimentación formativa y habilidades investigativas de los estudiantes de educación básica.

Marco teórico: La mejora de las competencias investigativas es primordial para la enseñanza académica en educación básica. Las competencias investigativas como un conjunto de capacidades desarrollan conocimientos necesarios para planificar, ejecutar y comunicar una investigación.

Diseño/Metodología/Enfoque: El paradigma fue positivista; el estudio fue básico con un diseño no experimental, transversal, correlacional, causal, explicativo, de enfoque cuantitativo; el tipo de muestreo, probabilístico. La muestra estuvo compuesta por 126 estudiantes; se recogió los datos mediante dos cuestionarios que pasaron su proceso de fiabilidad y validez: 0,794 obtuvo el cuestionario de retroalimentación formativa y 0,808, competencias investigativas; por tanto, presentaron una buena confiabilidad.

Resultados: El resultado arrojó que el 76,2% de los encuestados demostraron un nivel en proceso sobre las competencias investigativas y un 92,1% se ubicaron en un nivel medio con relación a la retroalimentación formativa. Además, se alcanzó una puntuación de Wald de 22391,323 con una p=,000, el ajuste del modelo y Pseudo R2 señaló un valor Nagelkerke 0, 260 y la prueba de contraste de la razón de verosimilitud reveló que el modelo logístico es significativo con un X2 de 24,863.

Investigación, implicaciones prácticas y sociales: El impacto de esta investigación parte de la posibilidad de que las instituciones educativas, en su práctica pedagógica, se dirijan a mejorar las competencias investigativas.

Implicaciones/Originalidad/Valor: El adquirir competitividades investigativas es primordial para optimizar los procesos investigativos; por el motivo, la investigación en el diseño curricular debiera ser transversal a todas las áreas.

Palabras clave: Retroalimentación formative; competencias investigativas; habilidades; descubrimiento; sostenibilidad.

INTRODUCTION

The improvement of research skills is essential for academic teaching in basic education; however, achieving these competencies is still deficient; In this regard, the classifications on the merits in research place Peru in spheres reasonably far from the countries with the best scientific research level. Only certain universities in Lima come within the 800th place: UPCH (683), UNALM (731), PUCP (751), UNMSM (752) and USMP (770) (Scimago Institutions Rankings, 2021). For these reasons, the low investment in scientific research makes Peru a country that only contributes 0.08% of GDP in research (Almeida, 2019), a scenario that becomes scarce scientific and technological creation.

The situation of the pandemic revealed that, in Peru, there are only 125 research scientists per million citizens (León-Velarde, 2019); therefore, it has been restricted to achieve scientific research against this new disease. The basic educational regime does not motivate scientific research in students, in addition this action is assumed in a very superficial way and without being planned (Aguirre, 2018); therefore, the curricular training of students and their progress in learning achievements are affected.

Acquiring investigative skills is essential to optimize investigative processes. For this reason, pedagogical management determines that research within the curricular design must be transversal to all areas. The impact of this research is based on the possibility that educational institutions, in their pedagogical practice, aim to improve investigative skills. It is transcendental to promote a moment of reflection where all educational agents make changes to integrate research into pedagogical work towards a curricular design in which all areas are integrated from a research perspective; In this way, strengthen in students the creative initiative, the investigative spirit, the motivation for change and their ability to produce.

From this vision, the pedagogical management considers the need to examine the teaching praxis is raised to begin to strengthen the investigative competences in the students of the regular basic level from a habitual, prudent, pleasant, and pedagogical development that promotes the motivation to know and develop the investigative scientific competences in your entire educational process.

Faced with the problem, the need arises to know the importance of how formative feedback improves investigative skills in basic education students, in this sense, pedagogical management maintains that feedback is a strategy that allows the education professional to know in what extent students are improving their learning and, to in turn, it points out the necessary guidelines for them to empower themselves with the knowledge they must acquire (Lozano and Tamez, 2014). Through feedback, the student reflects on his learning achievements in the evolution of potentialities on his investigative skills.

In this sense, the investigative problem arises due to a deficient level of development in the investigative competences by the students that becomes visible now in which the students do not correctly use the strategies of formative feedback. In this way, the general problem of the study is expressed as follows: how does pedagogical management influence to improve formative feedback and investigative skills? From the theoretical part, the study is justified because it is supported by the formative feedback theory, which will allow strengthening the knowledge of the feedback modes that are necessary to enhance investigative skills. At a practical level, it is justified because it will contribute to improve and develop the levels of investigative competences in basic education students with the use of feedback modes that will contribute to improve their performance and their investigative experiences.

The general purpose of this research was to determine influence of educational management to improve formative feedback and investigation skills of basic education students. The general hypothesis formulated was that the formative feedback influences the improvement of the investigative competences of the students of the basic modality.

At the international level, Corlován (2016) determined that the strategy of providing immediate feedback with mobile devices (software) improved the level of text comprehension. Likewise, Akgün (2016) pointed out that Turnitin is a program to avoid plagiarism and serves to provide feedback to the writer. On the other hand, Zhang

et al. (2019) indicated that formative feedback can guide students during revision in a way that helps them compensate for identified errors or weaknesses in the essay through eRevise. In turn, Oquendo (2019) pointed out that, by applying the Simplified Research Model strategy, children could carry out research projects with didactic orientations in the classroom. On the other hand, D'Olivares and Casteblanco (2019) concluded that secondary education must develop investigative skills to engage with the world's own disagreements.

At the national level, research such as that of Picón (2018) stood out, who pointed out that formative feedback develops children's reading skills. For his part, Carrera (2021) indicated that the daily practice of feedback strategies improves the learning of students. Similarly, Garcia et al. (2018) concluded that research skills improve with the use of formative research. Likewise, for Pacherres et al. (2021), through the ENARI program as a strategy, the investigative skills of the students will be strengthened.

Regarding the theories that support the research, the contributions of Anijovich (2019) were considered, for whom formative feedback is not only about showing how the student is in their learning process or determining if they did it correctly or wrong; rather it is to give the guidelines to the students so that they can achieve their learning goals. Formative feedback is achieved from two dimensions: strategies and content. The strategies dimension is addressed in four factors such as time, deferred for complex or challenging learning; in this way, the student will have a greater opportunity to process the information and make corrections to continue with their learning activity. Another factor is the quantity, it is focused on focusing and prioritizing the essentials that the student needs for their learning achievement. The way is to identify and provide feedback that the student needs according to their learning pace in a climate of respect. The audience is another factor that allows feedback individually, in groups or in pairs, it allows students to know the objectives of the feedback and can achieve the evaluation indicators to improve learning.

The content dimension refers to those elements that the teacher selects to offer his students; for example, the evaluation of the person, whose objective is to provide positive feedback where the student feels that they are a key part of their learning process. In the assessment of performance and production, the goal is to achieve a quality task with high cognitive demand and the ways in which the student develops to achieve the purpose of learning. On the other hand, in the evaluation of the learning processes, the objective is for the student to use the strategies so that he can identify his strengths and weaknesses within his learning process and how to overcome these difficulties.

In this sense, for Hattie and Timperley (2007), feedback is considered one of the most important pedagogical tools to improve when learning and teaching, but, although its relevance is continuously mentioned, few recent studies have investigated its effectiveness on process of learning Brookhart (2017) mentioned that feedback is a fundamental basis in formative evaluation since it informs both the education professional and the student about the level of their performance during their learning process. Meanwhile, Ramaprasad (1983) and Wiliam (2011) expressed that feedback is understood as a process that transcends the fact of knowing their current student performance, since their progress depends on how teachers and students provide the information that the action must feedback. Shute (2008) expressed that formative feedback is part of the communication between the teacher and student directed at their behavior and thinking to achieve their learning. Similarly, formative feedback should also allow actual performance to be compared to some established performance standard (Johnson & Johnson, 1993).

Effective feedback is based on three important questions asked by the education professional or student: Where am I going? (The objectives), how am I doing it? (Building your learning activities) and where to go next? (Face new challenges). Each question concerns notions of feeding, feeding back and feeding forward. Each question proposes an ideal learning environment or experience within the formative teaching-learning process. Teachers often restrict students' opportunities to collect information about their performance in relation to questions by taking responsibility for students and not considering what the student has achieved and how it was achieved. Teachers can create a learning environment in which students develop self-regulation monitoring skills and error detection (Hattie et al., 1996).

In relation to investigative skills, Tobón (2006, 2010) proposed a socio-formative approach, observing an integral development, ethical life project and positive human relations among others for personal and social

development and warmth of life. Based on the above, it is established that the competences to investigate are processes that require greater skills; therefore, it involves four components: knowing how to know, doing, being and living together, which promote knowing and solving problems to the needs of our environment through logic and reflection.

Jaik (2013) defined investigative competencies as a set of skills and knowledge necessary to plan, execute, and communicate research. Chacín (2018) integrated investigative skills for investigative learning. For this reason, it supposes the mobilization of procedural and attitudinal conceptual knowledge that, concatenated, develops the creativity and productivity of new knowledge regarding a problem of their reality (Ceballos and Tobón, 2019). In addition, for Moreno (2005), research skills are related to the ability to observe, handle different design activities, and develop scientific research.

On the other hand, D'Olivares and Casteblanco (2019) demonstrated that the competencies of a researcher are essential for knowing, proceeding, being, including existing and living with other learners in their immediate environment and with the world itself. In this regard, it is assumed as a competence when investigating the set of a series of competences and knowledge that the student must put into practice in their investigations. The capacities are different, that of a child, adult, or professional researcher, given the levels at the time of execution and systematization (Tamayo, 2005).

However, for this research article, Muñoz et al. (2001), who pointed out the competences as the capacities that require greater ability to develop them and that evolve to observe, question, analyze and write within all the phases of an investigation; They also apply the ability to interpret, argue and propose alternative solutions to problematic scenarios that a certain reality present. The Minedu (2015) developed the competencies for research and prioritized the ability to interpret that allows the student to choose and explain information that is essential to solve problems. For this reason, every citizen must be prepared to reason critically and autonomously, make decisions, and behave appropriately in relation to the sustainability of the environment and in relation to the consequences of science and technology in social life.

Scientific training is essential for students regardless of their sociocultural situation, talent, interest, and ability. It is mandatory to provide all students with the knowledge and skills that form what is designated as "elementary skills in science"; that is, the ability to perceive the universe that surrounds them, help them learn to observe, acquire data, and reach conclusions.

To this extent, the following investigative skills that should be fostered at the primary level were considered: observing, posing a problem, collecting, and analyzing information, interpreting, and writing. The competence to achieve observation is one of the essentials, because it allows, in the investigative process, to originate with a severe and selective perception of the natural or social phenomenon, being ideal to begin recording and interpreting what I observe (Muñoz et al., 2005). While, in the competition where the problem arises, it is one that allows the researcher apprentice to identify, ask questions, pose, and establish that there is a problem to investigate (Rivas, 2011). The competence to collect and analyze information is a researcher's ability to systematically inquire and reflect on the investigation. In this competence, the researcher apprentice can manage to classify, synthesize, and systematize data and information, emphasizing what is most important and what contributes the most to the investigation (Muñoz et al., 2001). Regarding the competence to interpret, emphasis was placed on the representation of the discoveries made. It implied delving into the systematic effects according to the results schemes (Minedu, 2015).

To develop investigative abilities in the students, the investigative scientific competences must be developed that bring the student closer to the solution of the problem, reaching all the conceptual, methodological, and attitudinal aspects; that it becomes concrete actions and that it produces in the students an investigative formation.

Materials and Methods

The type of study was hypothetical deductive because it starts from a hypothesis and an educational context. The approach that addressed the research was quantitative because the compilation of data was obtained to determine the study event. Likewise, the present study was of a basic type that is characterized by the

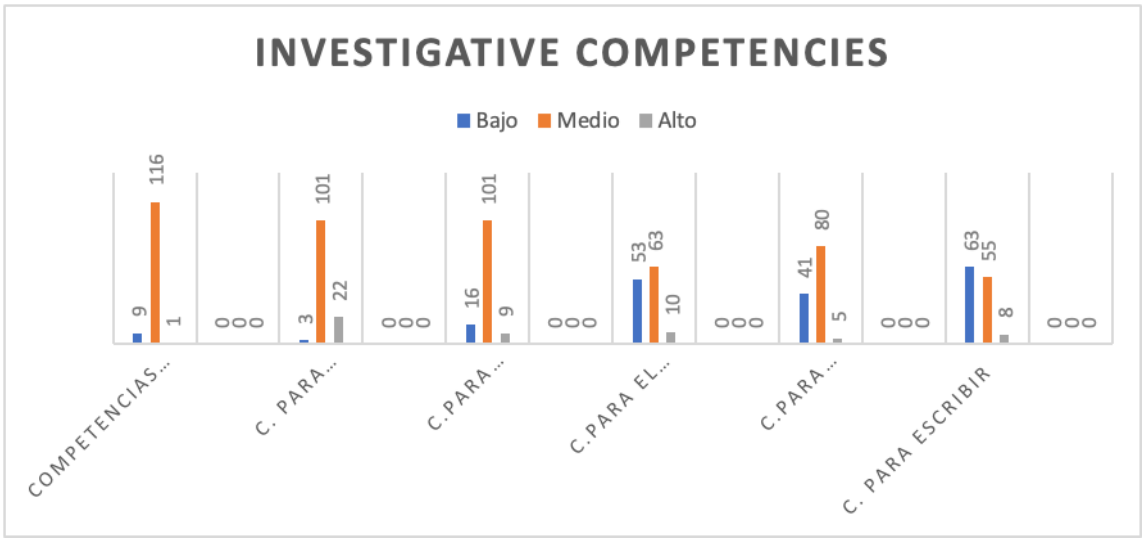
observation of the difficulty in its existing situation to, later, investigate it. In addition to this, the study was cross-sectional and of a non-experimental design. Its level was correlational, causal, explanatory. The sample was made up of 126 regular basic education students from a school institution. The type of sampling was non-probabilistic. The survey was used as a technique and the tool was the questionnaire. Likewise, the data was collected through two questionnaires, one for formative feedback and the other for investigative skills. For formative feedback, 0.794 was obtained and, for the investigative skills instrument, 0.808 using Cronbach's Alpha, producing solid and coherent results with respect to both variables.

Results

Figure 1: Levels and frequency of the formative feedback variable and its dimensions

Regarding the formative feedback, the schoolchildren surveyed were located at an achievement level with 0.8%, which represents 1; 76.2% were found at a process level and 23% at the beginning. In reference to the strategies dimension, 1.6% were located at an achieved level; unlike 82.5% who were at a process level and at the beginning, with 15.9%. On the other hand, the content dimension showed 1.6% of those surveyed at an achievement level; 61.9%, at a process level and at the start level, 36.5.

Figure 2: Levels and frequency of the investigative competencies' variable and its dimensions



Regarding the participants, it was found at a high level with 0.8%, which means 1 of them; 92.1% at the medium level and at the low level, 7.1%. In the competency to observe dimension, 17.5% found themselves at an achieved level and, at the medium level, 80.2% of the respondents were located and 2.4% were at the low level. In reference to the competence dimension to pose a problem, only 7.1% were in a high value and, in the average value, 80.2%, in addition, in the low level, 12.7%. Likewise, in the competence dimension for the

collection and analysis of data/information, 7.9% were found on a high scale and, in a medium value, 50% of those who participated in the survey and 42.1% was on a low scale. With reference to the dimension of competence to interpret, 4% found themselves in the high value; 63.5% in the middle and, in the low value, 32.5%. Finally, in the competence to write dimension, 6.3% were on a high scale; 43.7%, medium and 50%, at a low level.

Table 1: Normality tests

Normality tests

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistics	gl	Sig.	Statistics	gl	Sig.
Formative feedback	,465	126	,000	,563	126	,000
Investigative competencies	,520	126	,000	,334	126	,000

a. Lilliefors significance correction

Formative feedback to improve investigative skills

H_0. Formative feedback does not significantly influence to improve the investigative competencies of a public institution, 2022.

H_a. Formative feedback significantly influences to improve the investigative competencies of the school institution, 2022.

Table 2: Model adjustment and Pseudo R2 expresses the influence of formative feedback to improve investigative skills

Model	**Logaritmo de la verosimilitud -2**	**Chi-cuadrado**	**Gl**	**Sig.**	**Pseudo R2**	
Intersection only	31,957				Cox y Snell	,179
Final	7,094	24,863	2	,000	Nagelkerke	,260
					McFadden	,169

Link function: Logit

The contrast of the sample data to the probability ratio indicated that the logistic model was significant with an X2 of 24.863 with a p=.000 being a value less than α of 0.05, establishing that formative feedback significantly influences competencies. investigative. Those of the Pseudo R squared indicated the existence of three coefficients that calculate the fairness and effectiveness of the fit of the model. The Cox and Snell Coefficient indicated a scale of 0.179, showing that 17.9% of the formative feedback was explained by investigative skills. In the Nagelkerke test, an estimate of 0.260 was achieved, indicating that 26.0% of the type presented explained the formative feedback. Likewise, the McFadden Coefficient reached the value of 0.169, revealing that 16.9% of the progress of formative feedback was explained by investigative skills.

Table 3: Parametric test of significant incidence between formative feedback to improve investigative skills

Parameter estimates								
		Estimate	Desv. Error	Wald	gl	Sig.	95% confidence interval	
Umbral	[Formative feedback = 1]	-35,440	,237	22391,323	1	,000	-35,904	-34,976
	[Formative feedback = 2]	-15,333	935,901	,000	1	,987	-1849,666	1819,000
Location	[Investigatives competencies=1]	-36,693	,836	1926,258	1	,000	-38,331	-35,054
	[Competencias_Investigativas=2]	-33,988	,000	.	1	.	-33,988	-33,988
	[Competencias_Investigativas=3]	0[a]	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

On the appreciation of the Wald parameter for said adjustment of the model, it was revealed that the formative feedback manifests in a substantial way the prediction of the investigative competences with a level of 22391.323 and a p=.000, that is, it is less than α 0 .05. What was established, to the extent that formative feedback is appropriate, the development of investigative competencies will be perceived as effectively influenced.

Discussion

Regarding the results on formative feedback, 76.2% correspond to the process level; that is to say, that the strategies and contents of feedback must improve in the students. Likewise, they agree with the results with Zhang et al. (2019) who indicated that formative feedback can guide students during the review in a way that helps them compensate for identified errors or weaknesses in the essay through eRevise.

On the strategies dimension that refers to formative feedback, 82.5% were found at a process level. These results coincided with Carrera (2021) who indicated that the daily practice of feedback strategies improves the learning of students. Regarding the content dimension referring to formative feedback, 61.9% placed themselves at a process level, considering that it is important for students to know the assessments of formative feedback as a key part of their learning. The results were like those of Corlován (2016) who determined that the strategy of providing immediate feedback with mobile devices (software) improved the level of text comprehension.

In relation to the results regarding investigative skills, 92.1% of the participants found themselves at a medium level, showing concern for education professionals to develop investigative skills through various strategies and achieve optimal results in their studies. students. The results were like those of D'Olivares and Casteblanco (2019), who concluded that secondary education must develop investigative skills to engage with the world's own disagreements. Regarding the competence to observe dimension, 80.2% of the participants presented themselves at a medium level, demonstrating that the investigative competences of the students must be improved to achieve a severe and selective perception of the natural or social phenomenon, being suitable for begin to record and interpret what I observe. The results coincided with those of García et al. (2018), who concluded that investigative skills improve with the use of formative research.

In the results of the competence dimension to pose a problem, 80.2% stated that it is of medium level. The results are like Oquendo (2019), who pointed out that the application of the strategy (Simplified Research Model) for children will be able to carry out research projects with didactic orientations in the classroom. Likewise, in the results of the competence dimension for the collection and analysis of data/information, 50% of the students presented a medium level. The results being like those of Pacherres et al. (2021), who alluded through the ENARI program as a strategy to strengthen investigative skills in apprentices.

The results on the competence to interpret, 63.5% were located at a medium level, which presented similarities to those of Oquendo (2019), who pointed out that the application of the Simplified Research Model strategy for children will be able to carry out research projects with didactic orientations in the classroom. Finally, the competence dimension to write its results were the following: 43.7% of the participants presented a medium level. Being like those of García et al. (2018), who concluded that investigative skills improve with the use of formative research.

Conclusions

In conclusion, the objective of the study shows Wald parameter estimates of 22391.323 and a p=.000, indicating that the formative feedback responds to the prediction of the development of investigative skills, likewise, the adjustment of the model and Pseudo R2 indicate a Nagelkerke value of 0.260 specifying that the progress of investigative skills is explained by formative feedback and the likelihood test points to the logistic model will be revealing with an X2 of 24.863, showing that formative feedback significantly influences investigative skills. Therefore, to the extent that formative feedback is appropriate, the development of investigative skills will be effectively influenced. Therefore, investigative skills require skills that, when potentiated with formative feedback tools, favor their development of observing, posing a problem, collecting and analyzing data/information, interpreting, and writing.

These skills allow the apprentice to improve their ability and opportunity to build their own learning, to optimize knowledge, research and ethics. Therefore, it is recommended to continue developing other research related to the study because it allows knowing the precise moment of the difficulties or obstacles that the student is presenting during his learning process, promoting the timely and correct intervention of the teacher in the face of the inconveniences that the learner presents and thus find during the performance of their proposed tasks or activities with the aim that they can overcome them in a critical and reflective way, and then do it independently without problems, which will allow them to have confidence in themselves to set new challenges to be achieved gradually and easily.

References

[1] Aguirre, B. (2018). *La investigación y la actividad científica en la educación básica peruana (Aportes para la Pedagogía de nuestros tiempos).* https://bit.ly/3ZccpDM

[2] Almeida, A. (junio de 2019). *Investigación y desarrollo (I+D) en el Perú: ¿invertimos lo suficiente? ResearchGate.* https://bit.ly/3WRR7d2

[3] Anijovich, R. (2019). *Orientaciones para la formación docente y el trabajo en el aula: Retroalimentación formativa. Santiago: Fundación Bancaria La Caixa.*

[4] Akgün E. (2016). Plagiarism detection services for formative feedback and assessment: example of Turnitin. *Journal of educational and instructional studies in the world August 2016, Volume: 6 Issue: 3 Article: 08 ISSN: 2146-7463. Anadolu University. Turquía.*

[5] Brookhart, S. (2017). *How to give effective feedback to your students. Virginia: ASCD. Recuperado de https://bit.ly/3VP6ZeZ*

[6] Carrera Estela, H. (2021). *Retroalimentación formativa en la competencia resuelve problema de cantidad en estudiantes de segundo grado de primaria de Lima, 2021.* (Tesis para optar el grado académico de Doctorado en Educación). Universidad César Vallejo, Lima, Perú.

[7] Ceballos, J. y Tobón, S. (2019). Validity of a rubric to measure research competences in pedagogy from the socioformation. *Revista Científico Pedagógica,* 1 – 17.

[8] D'Olivares, N. y Casteblanco, C. (2019). Competencias investigativas: inicio de formación de jóvenes investigadores en educación media. *Revista Humanismo y Sociedad, 7(1), 6 – 21. Doi:*

https://bit.ly/3VSm27N
[9] García, N., Paca, N., Arista, S., Valdez, B. y Gómez, I. (2018). Formative research in the development of communicative and investigative skills. *Revista de Investigaciones Altoandinas,* 20(1), 125 – 136. Doi: https://bit.ly/3Wwip1S
[10] Hattie, J. y Timperley, H. (2007) *The Power of Feedback. First Published Research Article.* https://bit.ly/3vKtmrp
[11] Jaik, A. (2013). *Competencias investigativas: una mirada a la educación superior. México: ReDIE.*
[12] León-Velarde, F. (18 de abril de 2019). Las mentes que el Perú necesita de vuelta. El Comercio: https://bit.ly/3W2GCmc
[13] Lozano, F. y Tamez, L. (2014). Retroalimentación efectiva para estudiantes de educación a distancia. *RIED. Revista Iberoamericana de Educación a Distancia,* 17*(2) 197-221. https://bit.ly/3Izh4Ka*
[14] Ministerio de Educación. (2020). *Guía de retroalimentación para los niveles y modalidades de la educación básica en la educación a distancia. Lima – Perú. Recuperado de: https://n9.cl/036*
[15] Ministerio de Educación. (2020). *La Evaluación Formativa en el marco de la emergencia sanitaria generada por el coronavirus COVID19. Lima – Perú. Recuperado de: https://n9.cl/0iuvv*
[16] Moreno, M. (2005). Potenciar la educación. Un currículum transversal de formación para la investigación. *Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación,* 3(1), 520 – 540. Obtenido de https://www.redalyc.org/pdf/551/55130152.pdf
[17] Muñoz, J., Quintero, J. y Munévar, R. (2005). *Cómo desarrollar competencias investigativas en Educación. Bogotá: Cooperativa Editorial Magisterio.*
[18] Oquendo, S. (2019). Estrategia para el desarrollo de la competencia investigativa en estudiantes de básica primaria. *Encuentros*, 17(2), 1 – 16
[19] Pacherres, M., Zapata, J., Vélez, J. y Tumi, B. (2021). Experiencias de ensayo argumentativo para fortalecer competencias investigativas en estudiantes de secundaria. *Conrado*, 17(82), 411-417.
[20] Picón, L. (2021). Modelo de retroalimentación formativa para la comprensión lectora en estudiantes durante tiempos de pandemia Covid–19. *EDUCARE ET COMUNICARE: Revista de investigación de la Facultad de Humanidades*, 9(1), 22-29.
[21] Ramaprasad, A. (1983). On the definition of feedback. *Behavioral science*, 28(1), 4-13. Recuperado de https://bit.ly/3Ix16A8
[22] Rivas, L. (2011). Las nueve competencias de un investigador. *Investigación Administrativa,* 34 – 54. Scielo. https://bit.ly/3WVSU0D
[23] Scimago Institutions Rankings. (2021). *Research Rank Universities. Obtenido de Scimagoir: https://bit.ly/3WWdNJ9*
[24] Tobón, S. (2010). Formación integral y competencias. *Pensamiento complejo, currículo, didáctica y evaluación.* Bogotá: Ecoe *https://bit.ly/2mFHdzh*
[25] Zhang, H., Magooda, A., Litman, D., Correnti, R., Wang, E., Matsmura, L., Howe, E. y Quintana, R. (2019). E Revise: Using Natural Language Processing to Provide Formative Feedback on Text Evidence Usage in Student. *Universidad de Pittsburgh.*