






Communication and critical thinking: a study in Peruvian university students

Comunicación y pensamiento crítico: un estudio en universitarios peruanos

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Abstract

The objective of this article is to determine the relationship between communication skills and critical thinking in first year undergraduate students of a Peruvian public university. A correlational study was developed. The sample consisted of 545 subjects (287 males and 258 females), with an average age of 19 years and drawn from the first cycle of 8 professional careers of the Faculty of Letters and Human Sciences of a Peruvian public university. The instruments used were the 27-question communication skills questionnaire and the 34-question critical thinking questionnaire, duly validated. The results showed a correlation between the variables and the Spearman nonparametric test, which is applicable to ordinal variables, was applied. Finally, it is concluded that there is a significant and high relationship between both variables.

Keywords: communication skills, critical thinking, university students.

Resumen

Este artículo se propone como objetivo determinar la relación entre las habilidades comunicativas y el pensamiento crítico en estudiantes universitarios de primer año de una universidad pública peruana. Se desarrolló un estudio correlacional. La muestra fue de 545 sujetos (287 varones y 258 mujeres), con edades promedio de 19 años y extraídos del primer ciclo de 8 carreras profesionales de la Facultad de Letras y Ciencias Humanas de una universidad pública peruana. Como instrumentos se utilizaron el cuestionario de habilidades comunicativas que consta de 27 preguntas y el cuestionario de pensamiento crítico, de 34 preguntas, debidamente validados. Con respecto a los resultados, estos evidenciaron una correlación entre las variables y para ello se aplicó la prueba no paramétrica de Spearman, que es aplicable a las variables ordinales. Finalmente, se concluye la existencia de una relación significativa y alta entre ambas variables.

Palabras clave: habilidades comunicativas, pensamiento crítico, estudiantes universitarios.

INTRODUCTION

The role of the university in training undergraduates to meet the demands of today's labor market goes beyond academic achievement, encompassing the comprehensive development of generic skills or "soft skills" such as communication, teamwork and problem solving. These skills are increasingly valued by employers, who seek professionals capable of adapting, innovating and collaborating in a competitive global environment. Recent studies show that companies prioritize these skills as much as technical knowledge, as they influence graduates' ability to integrate and excel in multidisciplinary teams (Raj *et al.*, 2022). Communication and critical thinking skills are essential to thrive as a citizen in the 21st century. These skills are necessary to contribute as a member of society, to operate effectively in university institutions and to be competitive in the global marketplace. Communication skills are one of the elements of generic skills that are essential among university students, since their development contributes to improving, not only their health, but also their behavior and performance (Good and Brophy, 1996; Camacho and Sáenz, 2000; Hargie, 2011). For its part, critical thinking starts from observation, experience, reflection and reasoning of information to conceptualize, apply, analyze, synthesize and evaluate it (Creamer, 2011; Núñez-López *et al.*, 2017). Throughout their years in college, students will be exposed to situations, inside and outside the classroom, where they have to use their communication skills in, for example, group assignments and class presentations, and their critical thinking skills to be able to generate a reflective judgment of the information they receive (Facione, 1990) and regulate their own learning through self-assessment and adaptation of study strategies (Rivas *et al.*, 2022). Communication involves a process where information is shared through the exchange of verbal and nonverbal messages (Brooks and Heath, 1985), creating a relationship by interacting with each other (Groogan, 1999). It also enables human functioning because it is the cornerstone of strong and healthy interpersonal relationships. The use of effective communication skills is an important interpersonal competence that enables the development of the ability to interact interpersonally to understand people effectively. Thus, companies significantly value communication skills when hiring new employees,

which makes them crucial for the competitiveness that exists in the labor market (Ansari *et al.*, 2022). Several authors have emphasized that communication skills are not innate, but require a continuous process of learning and practice. Despite this, for Yu and Zin (2023) traditional teaching methods: (1) do not adequately foster the development of critical thinking skills in students; (2) lack authenticity, which limits their effectiveness; and (3) are insufficient to fully cultivate communicative competencies. To address these deficiencies, educational systems must be designed to facilitate the development of critical thinking (Dekker, 2020), using the most current and effective pedagogical strategies.

Critical thinking, on the other hand, is a process of permanently questioning information. This can occur in different areas. For example, one can question the information one reads or hears. It can also question a common belief or a new idea, since it is related to a responsibility to the "other" and to society that leads the subject to adopt a particular action (Lipman, 1987). Critical thinking seeks to build reasoned perspectives, leaving aside emotions or prejudices to give way to reason (Kurland, 2005). Seen in this way, it is perceived as a cognitive capacity that conveys meanings to develop ideas, enabling people to dialogue with others and experience satisfactory experiences, both in personal and social life (Saiz and Rivas, 2011; Karakus, 2024). The most generic definition was provided by Sternberg (1986), who stated that this type of thinking involves the processes, strategies and representations that allow learning new concepts, making decisions and solving problems, since it is linked to intellectual growth and a sense of purpose, which leads individuals to examine their beliefs and explore new ideas and perspectives (Vázquez-Parra *et al.*, 2023). However, years later, it would become clear that students are generally not taught to think critically (Stenberg *et al.*, 2007). On the other hand, seeking a certain level of convergence of the different definitions available, critical thinking implies a complex and highly demanding logical form of higher-order reasoning (Philly, 2005; Brady, 2008). For his part, Golden (2023) states that critical thinking is a multidimensional process that involves both the development of skills and the formation of critical dispositions. For the author, it should be taught in a way that recognizes individual differences in academic ability and other factors related to critical thinking performance. For Vázquez-Parra

et al., (2023), critical thinking allows discerning between true and false information, as well as the ability to objectively evaluate environmental stimuli beyond existing paradigms. In terms of its operationalization, it involves a set of faculties: articulation of ideas, elicitation of meaning, consideration of divergent arguments and search for evidence for their legitimacy, formulation of hypotheses, justification of arguments and personal beliefs, decision making, problem solving, monitoring and evaluation of cognitions and personal actions (Facione, 2010; Halpern, 1998; Yu and Zin, 2023). On the other hand, it is important to mention that there are studies that have proposed ways to better develop critical thinking. This is the case of Boa *et al.* (2018), who developed the Blended Socratic Method of Teaching (BSMT), where the teacher facilitates the discussion and guides the students so that they are on track in the discussion, where even the teacher himself participates in it. This is important because it also allows, in turn, the development of other cognitive aspects such as critical reading, which also has to do with the attitude of the students and their command of the language (Din, 2020). In previous work, Gabriel and Hirsch (1992) describe the problems associated with implementing an integrated approach to critical thinking and communication skills within accounting courses. Bonet *et al.* (2019) identified critical thinking skills in nursing students that enabled diagnostic reasoning. Their study allowed progressive monitoring of critical thinking skills in both assessment and diagnostic formulation. Likewise, Soria-Barreto and Cleveland-Slimming (2020) proposed to analyze how the transversal skills of critical thinking and teamwork are perceived by students. Among their results, they highlight that the students' valuation of active methodologies was positive. Several research studies have addressed critical thinking from different perspectives, among which the contributions of Romero (2012) and Chacón (2013) stand out. The former implemented a program aimed at the development of critical thinking, focusing his efforts on the creation of a structured methodology to stimulate these skills in students. For his part, Chacón conducted a comprehensive study that revealed the correlation between learning strategies and the development of critical thinking, using the Critical Thinking Inventory, designed by Acevedo and Carrera (2008), as the main tool. In a complementary line, Aguila (2014) stresses the importance

of modifying pedagogical strategies to foster both critical and creative thinking, suggesting a more dynamic and innovative approach in teaching-learning processes. Finally, Roca (2013) highlights the value of collaborative work as an effective means to promote deep reflection in students, which strengthens their development in educational environments. Hussainy *et al.*, (2012), developed communication skills in second-year pharmacy students, using a virtual practice environment (VPE) and evaluating the experiences of students and tutors (instructors). Similar study was conducted by Choi *et al.* (2015), who tested communication skills training for a group of nursing students using a video clip on a smartphone. As stated by Hernandez and Curbero (2018), systematic training is the most efficient process for acquiring appropriate communication skills. Likewise, Palmer-Silveira (2019) asserts that successful communication relies on language, although most messages are delivered through a lot of modes in addition to words to implement meaning. This is essential, for example, in the business environment, with clear and direct messages, so that customers can obtain all the information they may need. This is also reinforced by Quinquer (cited by Baidez, 2015), who states that in order to build knowledge, clear communication is important and, for this, linguistic skills must be developed. The relationship between both variables has also been worked on by Rengifo (2021), who points out the existence of a positive and significant influence of critical thinking and communicative skills when it has been developed in image reading, this after applying Nagelkerke's statistical test. For their part, Jeong *et al.* (2013) confirm that critical thinking and communicative competence are recognized by educators as vital skills required for the mastery of school subjects. However, it is observed that they are underdeveloped in students. The authors state that communication skill was the most significant predictor and accounted for 41.3% of the variation in critical thinking disposition in the case of nursing students, but, according to the characteristics, it is applicable, by extension, to those of other specialties. As we have seen, communication skills and critical thinking are crucial to academic and professional success. Clear communication improves understanding and the exchange of ideas, while critical thinking optimizes decision making. Together, these competencies support superior performance in college and prepare students for career

challenges. Understanding the importance of both variables in young university students, the present research aims to determine the relationship between communication skills and critical thinking in students of a Peruvian public university. The present research aims to explore the link between violence and emotional dependence, as well as to explore the psychometric evidence of two instruments that measure the variables of interest.

METHOD

Type of research

As for the type of research, it is correlational, since its objective is to measure the relationships between the two variables mentioned. Likewise, it is a cross-sectional or transactional study because the information is analyzed at a single point in time. At the same time, the initial part of the study has a psychometric phase, since it is concerned with evaluating the optimal functioning of the measurement instruments.

Population and sample

The population consisted of 1625 students, and a sample of 545 individuals was taken, 287 males and 258 females, with an average age of 19 years and selected from the first cycle of 8 professional careers of a Peruvian public university, in the Faculty of Letters and Human Sciences. An incidental non-probabilistic procedure was used for this selection.

Measurement instruments

The instruments applied were as follows:

a) The Communication Skills Questionnaire. Created by Cangalaya (2021) for this research. It consists of 27 items, which are originally responded to with a scale of five alternatives (from totally disagree for scale 1 to totally agree for scale 5) evaluating four dimensions: listening, speaking, critical reading and textual production.

b) The Critical Thinking Questionnaire. Created by Acevedo and Carrera (2008) in Mexico. It presents five independent scales: decision making, problem solving, motivation, emotional

control and usefulness of thinking. It consists of 34 items, with five response alternatives, from totally disagree (scale 1) to totally agree (scale 5).

The instruments were subjected to validity and reliability criteria, where a high level of reliability was obtained when applied to a sample similar to that of the present research. Then, for the development of the data collection, the corresponding permissions were requested, so that it was possible to enter the classrooms for the application. Both instruments were administered in the classrooms corresponding to each group of the selected sample, according to the previously determined careers. Since the instruments were brief and easy to implement, the application time was approximately 15 minutes.

Procedure

Student participation was facilitated by the teachers in charge of academic subjects such as general biology, introduction to literature, history of Peruvian cultures, logic I and Spanish language II, all taught in the first cycle of the aforementioned university. Prior to implementation, and after the necessary permissions were obtained, personalized training was provided to those in charge of data collection, in order to ensure the quality and accuracy of the process. At the beginning of the application, the purpose of the study was explained to the students, as well as the characteristics of the instruments to be used. Their participation was completely voluntary and was carried out without any type of academic or monetary incentive, thus guaranteeing a pressure-free environment.

RESULTS

Psychometric Analysis

Communication Skills Questionnaire

Table 1 shows the psychometric analysis of the Communication Skills Questionnaire, which determines that the items present homogeneity indexes (ritc) ranging from .21 to .57 (Figure 1). They are significant and exceed the minimum values established by the Kline (1998) criterion of .20. Thus, it can be affirmed that the items have correct homogeneity indexes. Likewise,

the reliability coefficient was achieved with the internal consistency method, with which a Cronbach's alpha of .887 was obtained, based

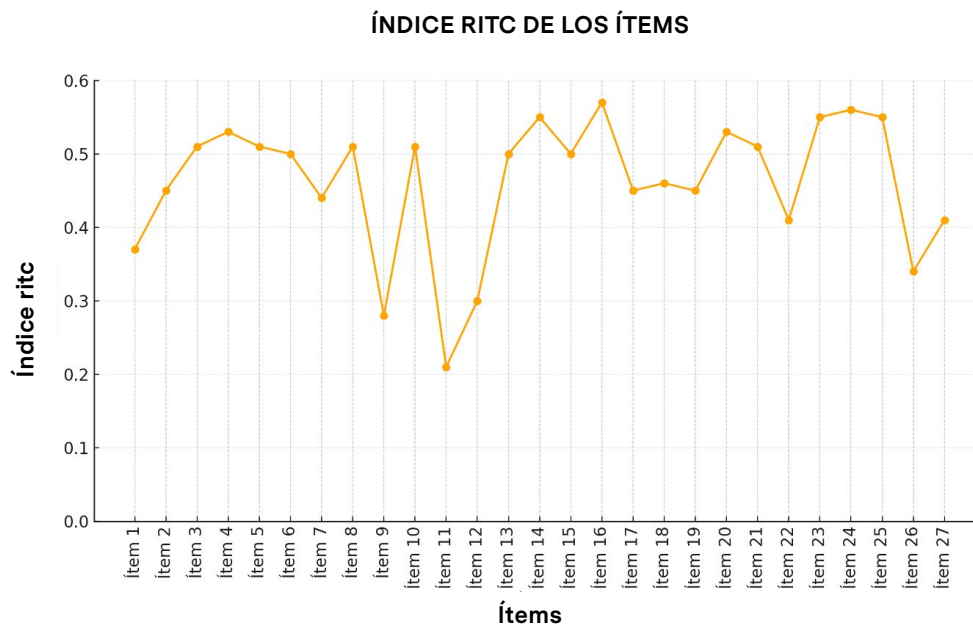
on the 27 items of the scale. Based on this, the Communication Skills Questionnaire has a high reliability.

Table 1

Analysis of items of the Communication Skills Questionnaire

Communication skills questionnaire items	M	DE	ritc
Ítem 1	3.95	.70	.37
Ítem 2	3.70	.79	.45
Ítem 3	3.71	.80	.51
Ítem 4	3.67	.83	.53
Ítem 5	3.77	.82	.51
Ítem 6	3.61	.85	.50
Ítem 7	3.50	.81	.44
Ítem 8	3.51	.85	.51
Ítem 9	3.2	1,03	.28
Ítem 10	3.59	.78	.51
Ítem 11	3.1	1,21	.21
Ítem 12	3.25	.94	.30
Ítem 13	3.47	.85	.50
Ítem 14	3.52	.87	.55
Ítem 15	3.47	.87	.50
Ítem 16	3.79	.88	.57
Ítem 17	3.44	.85	.45
Ítem 18	3.69	.94	.46
Ítem 19	3.35	.87	.45
Ítem 20	3.41	.88	.53
Ítem 21	3.71	.81	.51
Ítem 22	3.37	.82	.41
Ítem 23	3.64	.91	.55
Ítem 24	3.61	.83	.56
Ítem 25	3.81	.88	.55
Ítem 26	3.70	.92	.34
Ítem 27	3.57	.78	.41

Note. n=545, ritc=corrected item-test correlations.

Figure 1*Item-test correlation of the Communication Skills Questionnaire.*

Regarding the construct validity of the scale (Table 2), this was obtained through the exploratory factor analysis. The Kaiser-Meyer-Olkin index was .922, which evidences the presence of an explanatory potential, while Bartlett's test of sphericity is significant as the Chi-square was 4199.600 and the $p= 0.00$ which

is less than $p < .05$. Therefore, it is pertinent to perform a factor analysis with the data. Thus, the exploratory factor analysis was found to explain 53.072% of the total variance. On this basis, it is concluded that this instrument presents evidence of construct validity.

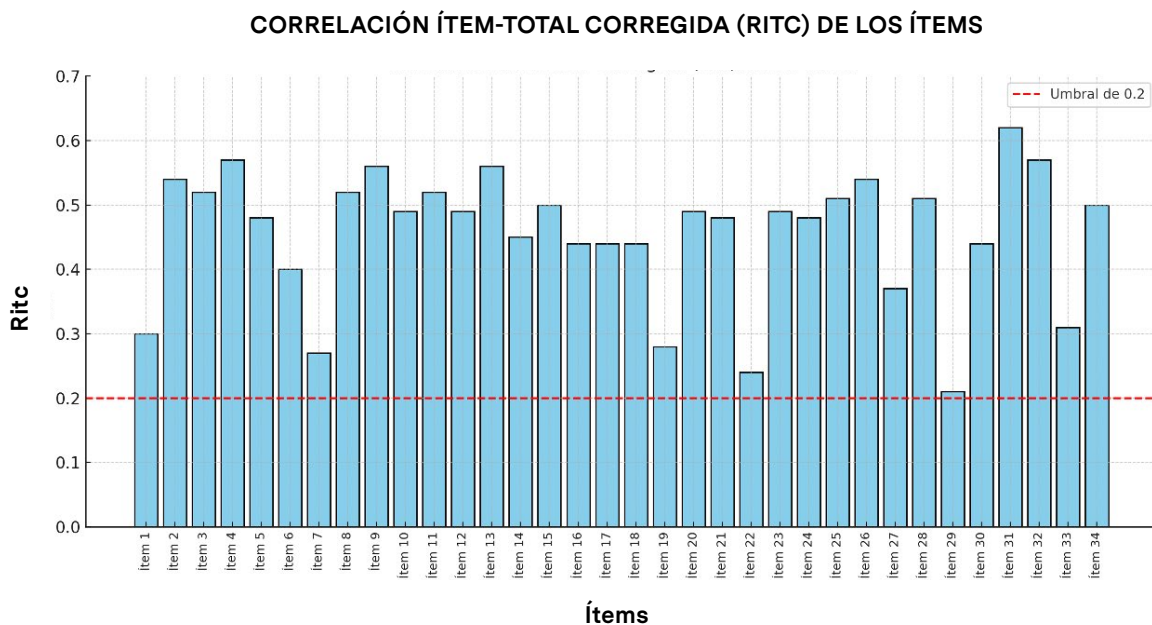
Table 2*Construct validity of the Communication Skills Questionnaire through exploratory factor analysis*

Ítem	Component					
	1	2	3	4	5	6
Ítem 1		.68	.11			
Ítem 2		.67	.10		.23	
Ítem 3	.41	.56	.11			
Ítem 4	.27	.61		.15	.14	
Ítem 5	.28	.65		.18		.13
Ítem 6	.35	.49	.13	.13		.14
Ítem 7		.17	.12	.75	.14	
Ítem 8	.28	.11	.13	.68	.11	
Ítem 9		.16		.14		.76
Ítem 10	.30	.34	.19	.44	-.10	

Ítem 6	3.48	.96	.40
Ítem 7	3.62	.95	.27
Ítem 8	3.58	.84	.52
Ítem 9	3.74	.86	.56
Ítem 10	3.57	.87	.49
Ítem 11	3.67	.82	.52
Ítem 12	3.42	.86	.49
Ítem 13	3.77	.95	.56
Ítem 14	3.79	.91	.45
Ítem 15	3.82	.85	.50
Ítem 16	3.60	.89	.44
Ítem 17	3.53	.88	.44
Ítem 18	3.50	1.00	.44
Ítem 19	3.61	.97	.28
Ítem 20	3.72	.95	.49
Ítem 21	3.49	.88	.48
Ítem 22	3.38	1.00	.24
Ítem 23	3.57	.88	.49
Ítem 24	3.54	.87	.48
Ítem 25	3.60	.86	.51
Ítem 26	3.64	.90	.54
Ítem 27	3.47	.87	.37
Ítem 28	3.80	.90	.51
Ítem 29	3.44	.90	.21
Ítem 30	3.65	.86	.44
Ítem 31	3.80	.88	.62
Ítem 32	3.91	.90	.57
Ítem 33	3.47	.89	.31
Ítem 34	3.66	.94	.50

Note. n=545, ritc=corrected item-test correlations

Figure 2
Item-test correlation of the Critical Thinking Questionnaire



Regarding the construct validity of the questionnaire, as shown in Table 4, it was achieved by means of the exploratory factor analysis. The Kaiser-Meyer-Olkin index was .925, which points to the explanatory potential of the instrument, while Bartlett's test of sphericity is significant as the Chi-square was 5517.801 and

the $p = .00$, which is less than $p < .05$. Therefore, it is possible to develop a factor analysis with such data. With all this, the exploratory factor analysis explains 51.828% of the total variance. Therefore, it is affirmed that the critical thinking instrument presents evidence of optimal construct validity.

Table 4
Construct validity of the Critical Thinking Questionnaire through the exploratory factor analysis

Ítem	Component						
	1	2	3	4	5	6	7
Ítem 1				.76			
Ítem 2	.29		.25	.47	.23		
Ítem 3	.18	.18		.67	.23		.11
Ítem 4	.44	.19		.22	.40		.11
Ítem 5	.14	.17		.60	.17	.13	
Ítem 6					.71	.15	
Ítem 7	.30		.11				.65
Ítem 8	.28	.25		.28	.44		.15
Ítem 9	.49	.14	.20	.17	.36		
Ítem 10	.14	.17	.22	.34	.41		-.13

Ítem 11	.29	.18	.10	.14	.54	.13	
Ítem 12		.19	.17	.44	.42		
Ítem 13	.40	.17	.30	.14	.39		
Ítem 14	.50	.14	.37				-.12
Ítem 15	.36	.12	.53		.14		
Ítem 16	.13	.19	.62	.11		.12	
Ítem 17			.62	.17	.23		.18
Ítem 18	.11		.53	.51			-.18
Ítem 19	.13		.59	-.18			.31
Ítem 20	.23	.19	.58	.29			-.12
Ítem 21	.14	.35	.23		.41	-.13	.28
Ítem 22		.18				.13	.67
Ítem 23	.20	.55	.163	.12	.12	.10	
Ítem 24	.19	.64		.11	.27		
Ítem 25	.22	.68	.15	.12			
Ítem 26	.31	.63		.19	.12		
Ítem 27	-.11	.67	.13		.11		.24
Ítem 28	.66	.12		.19		.14	.15
Ítem 29	.15					.82	
Ítem 30	.56		.11			.27	.21
Ítem 31	.56	.19	.14	.16	.35		
Ítem 32	.68	.18	.15		.17	.10	
Ítem 33		.12			.15	.79	
Ítem 34	.32	.13	.27	.13	.20	.38	

Método de rotación: Varimax

Analysis of the normality assumption

The Kolmogorov-Smirnov test made it possible to analyze the goodness of fit to the normal curve, which yielded statistics with high and significant

values for the communication skills and critical thinking scales (Table 5). From this, it is concluded that the scales present a distribution far from normal. Therefore, a nonparametric statistical analysis of the data was performed.

Table 5*Goodness-of-fit analysis to the Kolmogorov-Smirnov normal curve*

	Kolmogorov-Smirnov		
	Statistical	GI	Sig.
Communication skills	.12	544	.000
Critical thinking	.08	544	.000

Hypothesis contrastation

The hypothesis states that there is a significant relationship between communication skills and critical thinking in students of a Peruvian public

university. The contrastation was carried out through the Spearman correlation coefficient. Table 6 shows that the correlation is .76 (Figure 3).

Table 6*Correlation between communication skills and critical thinking variables*

	Critical thinking	
	Rho of Spearman	0.76**
Communication skills	Sig. (bilateral)	0.000
	N	545

Note. ** The correlation is significant at the 0.01 level.

In view of this, the hypothesis is accepted, since a high relationship between communication skills and critical thinking has been demonstrated. Similarly, Table 7 shows that the effect size

is large, being 0.8752, which also validates the correlation and its relevance. In terms of statistical power, the values exceed 0.80, which gives a value of 0.87.

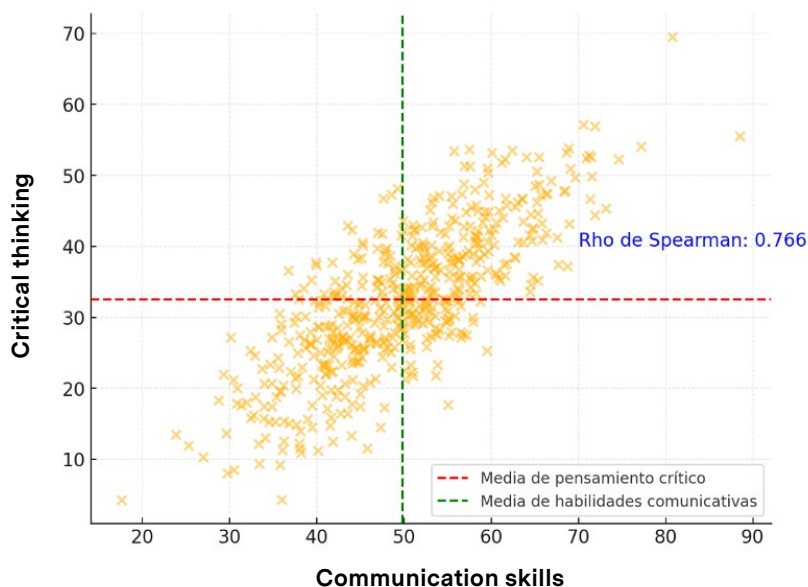
Table 7*Effect size and statistical power of the correlation between the communication skills and critical thinking variables*

	Critical thinking	
	Rho de Spearman	0.76**
	Sig. (bilateral)	0.0000
Communication skills	p	0.87
	1-β	0.95
	N	545

Note: ** Correlation is significant at the 0.01 level (2-tailed)

Figure 3

Scatter plot of the correlation between the study variables



DISCUSSION

The research developed sought to determine the existence of a relationship between communication skills and critical thinking in a group of Peruvian university students. Precisely, after analyzing the relevance of the instruments and the results found, the existence of a significant and high relationship between both variables is concluded. The results of this research, in line with previous studies, underline the importance of both variables as essential competencies in the educational field (Jeong *et al.*, 2013; Rengifo, 2021). Furthermore, the relationship between both variables has profound implications, since they are not only recognized as fundamental by educators, but they complement and reinforce each other as well. In this sense, Jeong *et al.* (2013) highlight that the disposition towards critical thinking directly influences communication skills, suggesting that students with developed critical thinking are better equipped to express their ideas clearly and effectively. Likewise, Rengifo (2021) argues that the lack of development in both skills limits the ability to comprehend texts in any format. This statement has significant repercussions, especially in a world where access to information is increasingly broad and diverse. Without these competencies, students not only face difficulties in their reading comprehension, but also in the critical interpretation of information, which could

affect their academic performance and their ability to participate actively at work and in social environments.

Moreover, the implications of these findings go beyond the classroom. In the current context, where effective communication and critical analysis skills are key skills in almost all sectors, the lack of these competencies could limit students' professional development. Therefore, educators and institutions must reconsider their pedagogical approaches, integrating strategies that promote both critical thinking and communication skills in a more deliberate and effective manner. This will enrich the learning process and prepare young people for the challenges of the modern world, where information and communication are essential for success.

The present work highlights, consistently with previous studies, the close relationship between the variables mentioned, a link that has also been corroborated by Pando *et al.* (2020). These authors identified a significant positive correlation in graduate students, suggesting that strengthening communication skills not only improves the ability to express ideas and concepts, but also enhances the development of critical thinking. This finding is especially relevant in the field of higher education, where critical thinking becomes an essential tool for analyzing and solving complex problems.

Furthermore, this progress not only impacts on the student's critical capacity, but also facilitates the development of other key aspects, such as critical reading, as pointed out by Din (2020). Thus, critical reading implies evaluating a text from an analytical and reflective perspective, which reinforces the interdependence between communicative ability and critical thinking. For this improvement to occur, it is essential that students adopt a favorable attitude toward critical thinking, which implies being willing to question, analyze and reflect on the information they receive. The implications of these findings are broad. Improved communication skills not only enrich academic dialogue, but also prepare students to participate more effectively in professional and social debates, where the ability to argue critically and coherently is increasingly in demand. In this sense, the educational programs that simultaneously foster the development of the variables analyzed in this study will provide key tools for the success of young people in the academic space and in their future professional life. Similarly, the results obtained in this research coincide with the conclusions of Aguila (2014), who stresses the urgency of changing educational strategies to consistently foster critical and creative thinking skills. The author argues that these competencies should not be addressed as an isolated aspect of the educational process, but as a permanent and integrated component in teaching, which implies a substantial change in pedagogical methods. This approach is key to prepare students to critically and creatively face the challenges of the academic and professional environment. Likewise, the findings obtained coincide with Roca (2012), who highlights the importance of using active teaching methods. This author emphasizes that teachers should adopt approaches that promote deep reflection in students, allowing them to "make knowledge their own" through collaborative work. This type of active teaching facilitates the acquisition of knowledge and encourages participation and critical thinking, which is essential for academic development.

Similarly, this research reflects the results of Romero (2012), who implemented the Development of Critical Thinking Program (DPC, from its initials in Spanish) and concluded that it is a highly effective resource. The author posits that the implementation of a systematic program for the promotion of critical and reflective thinking is essential, especially in the

first university cycles, when students are at a crucial stage of formation. The integration of a structured program not only boosts intellectual development, but also prepares students to critically confront the contents and situations they face in their academic career. In all this, it is worth highlighting the research of Chacón (2013), since it is from where one of the instruments used, that of Acevedo and Carrera, was collected to gather information regarding the Critical Thinking variable. This study highlighted the relationship between critical thinking and learning strategies, also in university students. Indeed, the results showed the existence of a significant and positive correlation between these variables, which is in accordance with the findings of this study. Similarly, the results of this research are in line with Quinquer (cited by Baidez, 2015), confirming the importance of communicative skills and abilities in the educational context. These competencies not only facilitate the transmission of ideas, but also play a crucial role in the construction of knowledge, especially when combined with critical and selective information search, an aspect closely linked to critical thinking, which is one of the key variables in this study. This finding (Quinquer's) becomes especially relevant in university environments, where students, being at an advanced stage of training, benefit greatly from the ability to filter and critically analyze different types of information. In this context, the teacher should not only be a transmitter of knowledge, but an active mediator who facilitates and enriches academic discussions, as highlighted by Boa et al. (2018). This mediation allows students to delve deeper into the topics covered and develop a more critical and reflective understanding of the content, thus preparing learners to autonomously and effectively face the academic and professional challenges they face. On the other hand, although critical thinking is one of the central issues in different aspects, it is highlighted in the educational and work spheres, as well as in the creation of new programs or products (Sternberg et al., 2007). Therefore, it is of utmost importance to implement programs to develop cognitive and metacognitive skills. If this is not done, academic problems will continue due to the absence or low development of critical thinking, especially in undergraduate students in the first cycles, as has been done in the present research. This is also corroborated by Gabriel and Hirsch (1992), who conclude that an integrated approach to teaching critical thinking and communication

skills works well in most college courses. Seen in this way, the aforementioned research highlights the importance of critical thinking and the implementation of communication skills during university studies and even from basic education, and this is important to highlight in university education. Thus, communicative skills develop almost naturally in people, since there is a need to socialize, and for this purpose language becomes an indispensable tool. Therefore, it is important that students not only understand, but also produce from the use of language. And this, precisely, is carried out along with critical thinking. As mentioned by Paul and Elder (2013), a series of steps must be followed in the course of the critical thinker: unreflective, challenged, beginner, practitioner, advanced and master. Therefore, this type of thinking must become an educational urgency at all levels, especially, in the first cycles of university studies.

Finally, it is important to highlight the limitations of the present study. These include the restricted focus on university contexts and the lack of longitudinal studies that allow us to observe the development of the variables studied over time. In addition, there is an excessive reliance on the role of the teacher as mediator, without considering other pedagogical strategies, and sociodemographic variables that may influence the development of these competencies are not explored. Future studies should extend the analysis to other educational levels, such as secondary or technical education, and include longitudinal research to evaluate the long-term impact. It is also necessary to investigate diversified pedagogical strategies, beyond teacher mediation, and to analyze how factors such as gender, age or socioeconomic context affect these skills. It would also be relevant to explore how critical thinking impacts other competencies, such as problem solving, creativity or decision making, in various contexts.

CONCLUSIONS

The findings of the study confirm a significant and high relationship between communication skills and critical thinking in first-year students of a Peruvian public university, supported by the Spearman correlation coefficient obtained. This suggests that as students develop their

communication skills, they also increase their ability to analyze and critically evaluate information. In this sense, communication skills and critical thinking are fundamental in the integral development of young university students, since they not only enhance their academic performance, but also their future integration into the workplace, where these competencies are highly valued. Regarding the questionnaires used, these showed high levels of reliability and validity, which supports the soundness of the results obtained in this research. Thus, this consistency highlights the applicability of the instruments in future correlational studies.

The work carried out suggests the importance of educational institutions adapting their pedagogical methods, incorporating strategies that actively encourage the development of critical thinking and effective communication in students. This approach is essential to face the demands of an increasingly globalized and competitive world. To achieve this, it is advisable to conduct longitudinal research to evaluate the long-term development of these skills, as well as to explore how sociodemographic factors may influence their evolution. In addition, it is recommended to diversify pedagogical strategies to promote these competencies, considering methods beyond teacher mediation.

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