

SEEJPH 2024 Posted: 16-08-2024

# **Interpersonal Skills And Cooperative Learning In Psychology Students Of A** Private University In Guayaquil, 2023

## Stalyn Israel Paz Guerra<sup>1</sup>

<sup>1</sup>Universidad César Vallejo

#### KEYWORDS ABSTRACT

Interpersonal Skills, Collaborative Learning, Psychology, Higher Education

The objective of this document is to propose a training plan based on the development of interpersonal skills with the aim of fostering cooperative learning among psychology students at a private university in Guayaquil in 2023. The research was conducted using a non-experimental design, which entailed observing and evaluating the variables or phenomena under investigation without any manipulation. The research findings indicate that inter-institutional alliances facilitate the expansion and enhancement of future psychologists' and professionals' competencies, offering them experiential learning opportunities in authentic work environments. The provision of internships in companies that offer training in this regard will be pivotal in complementing the academic training of students and better preparing them to address the issues they would encounter in professional practice. In this way, the university will not only fulfill its obligation to train competent professionals but will also become an agent of constructive social change.

### 1. Introduction

The current educational system places significant emphasis on cooperative work, as it fosters enhanced sociability and collaboration among students in both digital and face-to-face environments. This approach aligns with the revised instructional strategies and methods currently being implemented. Lobato et al. (2015) posit that the process of socialization and cooperation is an active process that requires the direct commitment of both the students and the instructor, who serves as a guide.

As students progress towards becoming effective and responsible collaborators, they gain an appreciation for the value of their contributions in achieving their proposed objectives. Additionally, they begin to recognize the potential for growth and development of their talents and abilities. In this type of technique, individual competence is subordinated to the common goals of team members. This technique is distinguished by the fact that each member contributes to the team's work and is considered a member of the group. As posited by Johnson et al. (1999), the development of teamwork is characterized by four distinct attributes: Individual and social responsibility, positive interdependence, face-to-face interaction, social skills, and group appreciation are crucial elements of social development.

The following capabilities are included in this category due to their intrinsic value. The manner in which subjects interact with one another or with other individuals associated with these skills is indicative of a relationship. The ineffectiveness of implementing these activities in the classroom is evident in the skills and attitudes of students who have low proficiency in these elements. Despite the benefits of cooperative work, there is widespread concern that these activities are not properly implemented. The prevailing individualistic culture in many societies is a significant contributing factor to this situation. In addition to the aforementioned considerations, it is crucial to acknowledge the constraints posed by financial limitations, time constraints, and inadequate teacher training. These factors, as highlighted by Bonal (2021), represent significant challenges that must be addressed to effectively implement cooperative learning in the classroom. It is possible that the overall development of their learners may be adversely affected in the absence of sufficient opportunities to practice the skills that are interconnected with cooperative learning. The ability to succeed in a variety of contexts, including the workplace, the classroom, and the personal sphere, hinges upon the development of these skills.

Intelligence, as defined from an intellectual perspective, is understood to encompass a range of



SEEJPH 2024 Posted: 16-08-2024

cognitive processes. These processes are further associated with a set of skills, including empathy, the use of social media, and engagement in human interactions, as outlined by Drigas and Papoutsi (2018). This particularity is taken into account when they posit that intellectual intelligence is linked to these abilities. They posit that these skills are of vital relevance in the construction of healthy affective interactions and that they are the skills that are connected to working in a collaborative environment.

The traditional school system fails to provide the necessary development of competencies. Consequently, a set of sixteen core competencies is proposed for integration into the curricula of contemporary educational institutions. Four competencies fall under this category. Those who fulfill the criteria for acquiring these competencies are endowed with the capacity to overcome challenges by employing skills such as critical thinking, collaborative work, effective communication, and problem-solving. Such abilities are developed through the process of acquiring competencies.

Furthermore, there are six competencies that are designated as "character competencies." These competencies demonstrate that the student is capable of empathizing with their environment. They stimulate curiosity, facilitate adaptability, and cultivate social and cultural awareness.

In order to foster an inclusive environment for both educators and learners in educational institutions, MINEDU has also developed guides that provide data on the subject of skills and collaborative work. The objective is to highlight the advantages gained from working with these capabilities, where all participants exhibit diverse yet constructive attitudes. In light of these considerations, Bar-On (2018) highlights the importance of directing and controlling one's thoughts in order to regulate behavior with others, which is a crucial aspect of emotional intelligence.

It can be observed that a high level of academic performance in children is positively correlated with their emotional intelligence and their ability to learn in a collaborative manner. This proposal presents a conceptual framework for a potential method to motivate students to achieve academic excellence. The method is one that could be implemented. As Tapia (2016) asserts, interaction with other individuals is an indispensable aspect of human existence, serving as the foundation for the capacity to adapt to ever-evolving circumstances. Article 9 of Peru's LGE (General Education Law), otherwise known as Law No. 28044, stipulates that the objective of education is to create opportunities for individuals to develop their full potential and become fully fulfilled through training. The training process encompasses the cultivation of human capabilities and talents, thereby facilitating integration into the surrounding environment.

The issue has been identified based on observations made at a private university in Guayaquil, Ecuador. Students at this university have been found to experience difficulties in developing their interpersonal skills, particularly in group work, teamwork, and other educational environments. These difficulties manifest as a lack of professional attitudes towards their chosen professions. Personal growth and interpersonal skills are of great importance in human and professional development, particularly in terms of psychosocial growth.

Goleman (1996) presents a series of cases that illustrate a lack of emotional control in our society, which often results in individuals being dominated by their own impulses. This lack of emotional control can lead to personal discomfort, family environment disruption, and future conflicts with those with whom we interact daily in different activities. Similarly, he identifies interpersonal relationships as a crucial competency that enables individuals to regulate their impulses and emotional states, foster empathy, trust, and social integration, and ultimately contribute positively to society.

The term "cooperative learning" is used to describe a process whereby students work together to enhance both their individual learning and the collective learning of the group. Furthermore, it is regarded as a form of learning in which objectives are collectively defined and pursued. The use of a method known as cooperative learning allows students to enhance both their individual learning and their ability to study in a group. The process by which students work together to acquire knowledge is referred to as "cooperative learning." This term is used to describe student learning. Furthermore, it is



SEEJPH 2024 Posted: 16-08-2024

regarded as a pedagogical approach wherein learning objectives are collectively defined and learning outcomes are attained by all participants. It is imperative that avenues for teacher reflection on the subject of general skills and learning be maintained and expanded.

This research is based on the constructivist epistemological foundation, which safeguards the construction of knowledge between the teacher and the student, respectively. It facilitates a linkage between research and the diverse dimensions of reality that prioritize the significance of educational practices and human behaviors, as well as the means of interpreting them.

The field of study is interdisciplinary, with a primary focus on educational psychology. This provides a contribution to the line of enquiry into evaluation and learning, which is responsible for the study of this phenomenon.

From this perspective, the problem and research are synthesized, and the following questions are formulated: What characteristics should a program based on interpersonal skills aimed at the development of cooperative learning in psychology students at a private university in Guayaquil have in 2023? What are the theoretical and methodological foundations for interpersonal skills and cooperative learning among psychology students at a private university in Guayaquil in 2023? What are the main interpersonal skills that students at a private university in Guayaquil should have in 2023? What are the principal interpersonal skills that students at a private university in Guayaquil should possess in 2023? What techniques related to cooperative learning should psychology students at a private university in Guayaquil have in 2023? What activities should be included in the interpersonal skills training plan aimed at the development of cooperative learning for psychology students at a private university in Guayaquil?

The rationale and significance of this research are theoretical, as it is grounded in the conceptual frameworks established by prominent figures in the field of interactionist psychology, including Piaget (1951) and others. This author posits that an individual's cognitive development is a function of both the conditions of their environment and external factors. Piaget is unequivocal in his assertion that social connection is of paramount importance for the development of cognitive abilities. The internal elements encompass biological development and psychological processes, whereas the external factors comprise the social and cultural environment. Internal factors are of greater consequence than external aspects.

Conversely, as posited by Vygotsky (1934), the acquisition of information is both a social and an individual act, with particular emphasis on the social interactions that occur during the educational process. The influence of sociocultural theory on the field of education has been profound.

This has resulted in a shift towards a more subject-centered approach that emphasizes the value of society in education. Similarly, this research will make a theoretical contribution through the support of expert authors in the analysis of the study variables. These standards will enrich the research and provide a real vision of the phenomenon addressed, thus contributing to the scientific community as updated material on the topic raised for future research related to the topic under study.

The objective is to guarantee that young university students who are studying psychology gain valuable knowledge with the intention of enhancing their comprehensive academic performance, as well as developing their interpersonal skills, facilitating their individual and group learning, and meeting goals and objectives similar to those described by Ortega (2016) in order to facilitate optimal development in the context of new challenges. This objective is related to the implementation of the concept in a variety of institutional contexts.

It is evident that cooperative learning represents a sophisticated methodology, as it facilitates the growth of competencies through communication, thereby enhancing students' emotional well-being. This approach also reinforces their comprehensive formation and contributes to the development of individuals who are attuned to the nuances of the present reality, as Torrego-Seijo (2021) asserts. It is imperative that the society develops these skills, as they constitute an indispensable aspect of human



SEEJPH 2024 Posted: 16-08-2024

#### nature.

The incorporation of cooperative learning strategies enhances socialization and collaborative work in both traditional classroom settings and virtual learning environments, making it a crucial element in modern education. This is because it provides a reference point for the new instructional and learning strategies and methodologies that are currently being applied.

As García-Peñalvo et al. (2023) posit, the significance of socialization and collaboration lies in the capacity to utilize knowledge in collaborative settings, a skill that is particularly crucial in light of the necessity to confront genuine challenges.

In conclusion, with regard to Gardner's theory of interpersonal intelligence, it is essential to comprehend the rationale behind the actions of those in our immediate vicinity and the methods through which they collaborate with one another. The capacity to respond rationally to the behaviors of others is contingent upon a shared mindset. In 1995, Theresa Gardner published a seminal work on the subject. In light of these ideas, it is essential to understand the connection between interpersonal connections and collaborative work in order to address the questions that have been raised in this research.

The objective of this research is to present a proposal for a training plan based on the development of interpersonal skills with the aim of fostering cooperative learning in psychology students at a private university in Guayaquil in 2023. The specific objectives are as follows: The first specific objective is to identify the theoretical and methodological foundations for the development of interpersonal skills and collaborative learning among psychology students. A second specific objective is to: The primary objective is to ascertain the essential interpersonal skills that psychology students from a private university in Guayaquil should possess by the year 2023. A third specific objective is to: The fourth specific objective is to delineate the techniques related to cooperative learning that psychology students from a private university in Guayaquil should have by the year 2023. The objective is to design a training plan in interpersonal skills aimed at the development of cooperative learning for psychology students at a private university in Guayaquil in 2023. The fifth specific objective is to: The proposal for the plan for the development of interpersonal skills and cooperative learning must be validated by experts.

In conclusion, the research hypothesis is based on the premise that the proposed program will demonstrate a direct and significant relationship between interpersonal skills and cooperative learning in psychology students at a private university in Guayaquil in 2023. A number of factors contribute to this situation. For instance, teachers may lack the requisite training in group management, resources and strategies. Furthermore, the individualistic culture that prevails in many societies (Bonal, 2021) also presents a challenge. This is evidenced by the limited implementation of such activities in the classroom, which is reflected in the aptitudes and attitudes of students, who often display limited skills in these areas. Notwithstanding the advantages of collaborative learning, students often lack the requisite skills to engage effectively in such an environment.

## 2. Objectives

## 2.1 General objective

To propose a training plan based on the development of interpersonal skills aimed at the development of cooperative learning in psychology students from a private university in Guayaquil, 2023.

## 2.2 Specific objectives

- ✓ Identify the theoretical and methodological foundations. Fundamentals for the development of interpersonal skills and collaborative learning of psychology students
- ✓ Determine the main interpersonal skills that psychology students at a private university in Guayaquil should have, 2023.



SEEJPH 2024 Posted: 16-08-2024

- Delimit the techniques related to cooperative learning must be handled by psychology students of a private university in Guayaquil, 2023.
- ✓ To design a training plan in interpersonal skills aimed at the development of cooperative learning for psychology students at a private university in Guayaquil, 2023.
- ✓ Validate the proposal of the plan for the development of interpersonal skills and cooperative learning by experts.

Methodology

## 3.1 Type and design of research.

## 3.1.1 Type of research.

CONCYTEC, in its Regulations for the Qualification, Classification and Registration of Researchers of the National System of Science, Technology and Technological Innovation, indicates that the following rules must be followed. According to RENACYT (2021), applied research is defined as the application of scientific knowledge with the aim of making a community or social system aware of its needs and ensuring that they are met.

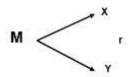
The Organization for Economic Cooperation and Development (OECD) published a manual in 2018, called the Oslo Manual, which described two different forms of research: basic research and applied research. In this framework, an applied purpose was established because a real problem was addressed by describing the phenomenon using scientific, methodological, and technological means. This was done in accordance with the objective of the study.

Given that the objective of this research is to delineate the defining features, characteristics, and properties of the concepts and phenomena pertaining to a specific context, a descriptive approach will be employed. As Carrasco (2006) notes, this type of study entails the creation of new knowledge to provide new information. In addition, Sánchez et al. (2018) posit that the study will elucidate disparate theories and concepts related to current events, without the intention of seeking immediate application. A quantitative approach is employed, utilizing statistical and numerical techniques to examine the variables and their behavior. Furthermore, in order to express the results obtained (Hernández et al., 2014), the collection of data is expected through a series of evidentiary procedures, which will eventually lead to the formation of conclusions and the answering of questions, and finally to the establishment of an apparent answer in the population. This process necessitates the formulation of hypotheses and measurements.

## 3.1.2 Type of research

The research will be carried out according to a nonexperimental design, which means that the variables or phenomena studied will not be subject to any manipulation but will be observed and evaluated after they have already occurred.

In the same way, as pointed out by Sánchez et al. (2018), it will be a cross-sectional study, since it will take into account real events that have occurred during a predetermined and determined period of time.





SEEJPH 2024 Posted: 16-08-2024

Where:

M: Sample.

X: It is the variable Interpersonal Skills.

Y: It is the Cooperative Learning variable.

A: It's the relationship.

## 3.2 Population, sample and sampling

## 3.2.1 Population

In this specific context, the population is comprised of individuals, such as educators and learners, engaged in the study of andragogical attitudes (López, 2004). The term "population" is used to describe the objects or individuals that are intended to be taken into consideration in a given research project. In accordance with the criteria established by Hernández, Fernández, and Batista (2016), a quantitative approach study considers a sample as a reference subset of the universe or population. This is done with the intention of generalizing the conclusions drawn from the research.

The population under consideration in this study comprises 80 students pursuing the first level of the psychology degree at a private university situated in the city of Guayaquil. The cohort of students will be enrolled in courses leading to a degree in psychology and will all be from the same institution. As defined by Sánchez et al. (2018), the term "population" refers to the entire group of students who share the same parameters of time, place, and content, in addition to the observable characteristics that define them.

In accordance with the criteria established by Manzano and García (2016), the inclusion-exclusion criteria are employed to ascertain whether the incorporation of a study into the research process enhances the methodology and to determine the internal and external validity of the study. Furthermore, the study's findings can be extended to populations with similar characteristics.

Inclusion criteria: Students enrolled in the first cycles of Psychology at the same institution on the same day. The researcher's ability to access populations with similar characteristics.

### **3.2.2 Sample**

Given that a sample is a subset of the total complete grouping of students from the same educational center, this research will focus on 80 mixed students enrolled in the first level of the psychology program and hailing from the same educational institution.

### 3.2.3 Sampling

As outlined by Otzen and Manterola (2017), the following factors were considered in relation to the selection specifications: the sampling method was straightforward and non-probabilistic, chosen for its representativeness and ease of implementation. The selection was conducted at the discretion of the researcher and included only students enrolled in the initial cycles of the psychology program. The unit of analysis is as follows: the subject population consisted of psychology students.

## 3.3 Data collection techniques and instruments.

In their 2016 study, Hernández, Fernández, and Batista underscore the importance of considering specific factors when selecting research instruments. This research employs a methodology that entails conducting the survey in a virtual setting. As Wolf et al. (2016) observe, the notion that an instrument is a pre-established format is reflected in the concept that an instrument is the means through which all data pertaining to the variable under investigation can be obtained.

Moreover, Hernández et al. (2014) express a similar viewpoint. The questionnaire, the instrument utilized in this research, was constructed using Google Forms. This section of the questionnaire comprises questions that do not permit open-ended responses and that address the two variables that

SEEJPH 2024 Posted: 16-08-2024

require attention. The questionnaire is organized and structured in a way that facilitates completion. As Hurtado (2010) posits, the questionnaire is designed to yield data that will enable the attainment of reliable results. The questionnaire is composed of a total of 32 questions, which are divided into two categories. The first category comprises twelve questions, while the second category includes twenty interrelated questions

## 2. Result and Discussion

This section presents the findings of the investigation, derived from the measurement of the variables under study. The aforementioned results were obtained through the implementation of the instruments in alignment with the objectives of the research project.

## **Descriptive data**

Table 1. This table presents the percentage and frequency data of the interpersonal skills variable.

LEVEL	Frequency	%
High	56	70%
Middle	24	30%
Low	0	0%
TOTAL	80	100%

Note: Own elaboration.

Table 1 presents a detailed interpretation of the data obtained. The data indicate that, of the 100% of psychology students attending a private university in Guayaquil in 2023, 30% demonstrated a medium level of interpersonal skills, while 70% exhibited a high level of such skills.

Table 2. General results of the questionnaire dimensions of variable 1. Note: Own elaboration

LEVELS	D1	D1		%	D3Frequenc	%
LEVELS	Frequency	<b>%</b>	Frequency		y	
High	37	46.7%	61	76.7%	43	53.3%
Middle	43	53.3 %	19	23.3%	35	43.3%
Low	0	0%	0	0%	2	3.3%
TOTAL	80	100%	80	100%	80	100%

Table 2 illustrates that 53.3% of individuals exhibit a medium level of empathy, while 46.7% demonstrate a high level of empathy with regard to interpersonal relationships. The data indicates that 23.3% of individuals exhibit a medium level of empathy, 76.7% demonstrate a high level, and the remaining 3.3% display a low level. Nevertheless, 43% of respondents exhibited a medium level of empathy, while 53% demonstrated a high level.

Table 3. The information related to the percentages and frequencies of variable 2: cooperative learning.

Note: Own elaboration

LEVEL	FREQUENCY	%
High	48	60%
Middle	32	40%
Low	0	0%



SEEJPH 2024 Posted: 16-08-2024

ТОТАІ	80	100%
IUIAL		

The data collected is presented in Table 3, which reveals that, of the total number of psychology students attending a private university in Guayaquil in 2023, 40% demonstrate a medium level and 60% demonstrate a high level with respect to the variable of Cooperative Learning.

Table 4. Overall results of the variable dimensions 2 questionnaire

Note: Own elaboration.

LEVELS	D1		D2	%	D3		D4	%	D	<b>)</b> 5
LEVELS	Frequency	<b>%</b>	Frequency		Rub.	%	Frec.		Frec.	%
High	51	63.3%	48	40	40	50%	50.0%	60.0%	27	33.3
Middle	29	36.7 %	32	40	40	50%	50.0%	40.0%	51	63.3
Low	0	0%	0				8	0%	2	3.3
TOTAL	80	100%	80	80	80	100 %	100%	100%	80	100%

With regard to positive interdependence, the item pertaining to individual and group responsibility exhibits a medium level of 37% and a high level of 64%. Forty-one percent of the participants demonstrated a medium level of proficiency, whereas 59% exhibited a high level of proficiency in social skills. Forty-nine percent of the sample exhibited a high level of face-to-face interaction. The group evaluation yielded a score of 63.3% at the medium level, 3.3% at the low level, and 33% at the high level.

## Testing the general hypothesis.

The general hypothesis is as follows: The hypothesis that interpersonal skills are related to cooperative learning in psychology students from a private university in Guayaquil (2023) was not supported by the findings.

The null hypothesis is as follows: The hypothesis is that there is a relationship between interpersonal skills and cooperative learning in psychology students from a private university in Guayaquil in 2023.

Table 5. General hypothesis testing

Note: Own elaboration.

Rho de Spearman		Interpersonal skills	Cooperative learning
Interpersonal skills Correlation coefficient		1,000	0,504
	Sig. bilateral		0,005
	Number	80	80
Cooperative learning	Correlation coefficient	0,504	1,000
	Sig. bilateral	0,055	
	Number	80	80

Table 5 illustrates that the variables "interpersonal skills" and "cooperative learning" exhibit a correlation coefficient of 0.504, which is indicative of a positive association. It is noteworthy that the p-estimate is 0.005, which is below the pre-established threshold of 0.05. This indicates that the null hypothesis is rejected, and the alternative hypothesis is accepted. In conclusion, a correlation exists between interpersonal skills and cooperative learning among psychology students at a private university in Guayaquil in 2023.



SEEJPH 2024 Posted: 16-08-2024

An alternative hypothesis is presented herewith. The present study did not find a relationship between empathy and cooperative learning among psychology students at a private university in Guayaquil in 2023.

The null hypothesis is as follows: The relationship between empathy and cooperative learning in psychology students at a private university in Guayaquil in 2023 is yet to be determined.

Table 6. Specific hypothesis test 1

Note: Own elaboration.

Rho de Spearman		Empathy	Cooperative
			learning
Empathy	Correlation	1,000	0,490
	coefficient		
	Sig. bilateral		0,007
	Number	80	80
Cooperative	Correlation	0,490	1,000
learning	coefficient		
	Sig. bilateral	0,07	
	Number	80	80

As evidenced by the data presented in Table 6, the correlation coefficient between the cooperative learning variable and the empathy dimension is 0.49, which is higher than the average.

Conversely, the p-value is 0.007, which is less than the predetermined level of significance. In light of the evidence presented, it can be concluded that the null hypothesis is rejected, and the alternative hypothesis is accepted as a viable explanation. In essence, students who demonstrate empathy are more prone to engage in cooperative learning.

### **Specific Hypothesis Test 2**

An alternative hypothesis is presented herewith. The present study did not find a relationship between interpersonal relationships and cooperative learning among psychology students at a private university in Guayaquil in 2023.

The null hypothesis is as follows: The relationship between interpersonal relationships and cooperative learning in psychology students at a private university in Guayaquil in 2023 is yet to be determined.

Table 7. Specific hypothesis test 2

Note: Own elaboration.

Rho de Spearman		Empathy	Cooperative learning
interpersonal relationships	Correlation coefficient	1,000	0,35
	Sig. bilateral		0,55
	Number	80	80
Cooperative learning	Correlation coefficient	0,35	1,000
	Sig. bilateral	0,55	
	Number	80	80

Table 7 illustrates that, based on the correlation coefficient between the interpersonal interactions dimension and the cooperative learning variable, which is 0.355, it can be inferred that the correlation between the two is weakly positive.



SEEJPH 2024 Posted: 16-08-2024

Conversely, the *p*-value is 0.055 greater than 0.05, indicating that the null hypothesis is accepted, and the alternative hypothesis is rejected. In light of the aforementioned evidence, it can be posited that there is no discernible correlation between cooperative learning and interpersonal interactions among psychology students from a private university in Guayaquil in the year 2023.

## **Specific Hypothesis Testing 3**

An alternative hypothesis is proposed as follows: The present study did not find a relationship between social responsibility and cooperative learning among psychology students at a private university in Guayaquil in 2023.

The null hypothesis is as follows: The relationship between social responsibility and cooperative learning in psychology students at a private university in Guayaquil in 2023 is of interest.

Table 8. Specific hypothesis test 3

Note: Own elaboration

Rho de Spearman		Social	Cooperative
		Responsibility	learning
Interpersonal	Correlation	1,000	0,415
relations	coefficient		
	Sig. bilateral		0,23
	Number	80	80
Cooperative	Correlation	0,415	1,000
learning	coefficient		
	Sig. bilateral	0,23	
	Number	80	80

As evidenced in Table 8, the correlation coefficient between the dimension of social responsibility and the variable of cooperative learning is 0.415, which suggests a positive yet relatively weak association between the two variables. This information is presented in Table 8 for your convenience.

In contrast, the p-value is 0.023, which is considerably less than the conventional significance level of 0.05. This indicates that the null hypothesis is rejected, and the alternative hypothesis is accepted.

In conclusion, the present study demonstrates a correlation between cooperative learning and the social responsibility of psychology students at a private university in Guayaquil in 2023.

In regard to hypothesis testing, the present research employed the Shapiro-Wilk hypothesis test, as the Shapiro-Wilk test is an appropriate tool for evaluating the normality of a sample of any size. The application of this method allows for a comprehensive evaluation of the data distribution. Consequently, the hypothesis to be tested is as follows:

**Ho**. The results of the Interpersonal Skills and Cooperative Learning Questionnaire exhibit a normal distribution.

**Ha:** The results of the Interpersonal Skills and Cooperative Learning Questionnaire do not exhibit a normal distribution.

Accordingly, Table 8 illustrates the outcomes of the normality tests conducted on the variables of Interpersonal Skills and Cooperative Learning, indicating that both variables do not adhere to a normal distribution.

Table 9. Specific hypothesis test 3

Note: Own elaboration.



SEEJPH 2024 Posted: 16-08-2024

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistical	G l	Mr.	Statistical	Gl	Mr.
Interpersonal skills	0,091	8 0	0,200*	0,980	80	0,662
Cooperative Learning	0,125	8 0	0,106	0,975	80	0,483

<sup>\*.</sup> This is a lower limit of true significance.

## to. Lilliefors Correction of Significance

With regard to the variable of interpersonal skills, the value of the Kolmogorov-Smirnov statistic is 0.091, with a *p*-value of 0.200. This indicates that there is insufficient evidence to reject the null hypothesis of normality.

Nevertheless, the Shapiro-Wilk statistic is 0.980, with a *p*-value of 0.662, indicating that the variable in question follows a normal distribution.

In contrast, the Kolmogorov-Smirnov statistic for the cooperative learning variable yielded a value of 0.125, with a p-value of 0.106, while the Shapiro-Wilk statistic returned a value of 0.975, with a p-value of 0.483. The results indicate that there is insufficient evidence to reject the null hypothesis of normality for this variable. Consequently, non-parametric statistics with the Rho Spearman coefficient were applied for the calculation in the hypothesis test. The results demonstrate that the proposal of a model for the inclusion of interpersonal skills will enhance the teaching-learning processes of psychology students at a private university in Guayaquil, Ecuador, in 2023.

#### 5. Discussion

In the context of the post-pandemic era, it is evident that the global emergency has precipitated a transition across all spheres of academic life. The curriculum, too, has been affected, moving from a traditional face-to-face format to a virtual one. This shift has necessitated the introduction of hybrid educational environments and the eventual return to the classroom. This transition has also led to an evolution in the interpersonal skills of students, who are now required to adapt to different modalities of methodologies and teaching in order to respond effectively to the changing challenges of the educational environment. The present research project is the result of a growing need to explore the reality of these interpersonal skills and cooperative learning in psychology students from a private university in the city of Guayaquil.

The principal objective of this study is to present a training plan that is specifically designed to facilitate the growth of interpersonal skills and to encourage the practice of cooperative learning among psychology students at a private university in Guayaquil in the year 2023. This finding serves to reinforce the conclusions of the study. The findings of the research indicate a relatively positive correlation between the variables under study, derived from the use of two distinct sets of methodological data.

The results, as determined by Spearman's correlation method, substantiate the proposal of an inclusion model for interpersonal skills that will reinforce cooperative learning. In the context of our research, we concur with the assertion put forth by Azorín (2018) that cooperative learning offers a valuable avenue for fostering the growth of interpersonal abilities. These competencies encompass the practice of values such as mutual support and acceptance of others, the development of a robust self-esteem, and the ability to communicate effectively, which are essential for engaging with others and contributing to society. These capabilities are considered essential for effective functioning. However, as Rogers (2011) notes, the accumulation of experience, cooperation, and communication fosters the growth of beneficial relationships with others.



SEEJPH 2024 Posted: 16-08-2024

The formation of cooperative relationships between individuals can result in the development of stronger and more beneficial relationships with others. This is a significant phenomenon because human beings are inherently dynamic and driven by the pursuit of self-interest, particularly in an increasingly social and globalized world. Additionally, he asserts that genuine self-acceptance and interpersonal acceptance are essential for personal growth.

However, as Jaramillo et al. (2019) have observed, programs designed to promote cooperative learning and to enhance interpersonal competencies within the school curriculum have the potential not only to enrich pedagogy and the educational community but also to facilitate the full integration of students into society. It is of paramount importance to consider this in the context of global environments, where the demand for skills represents a persistent challenge to the capacity for adaptation and personal development. It is of paramount importance to consider the statistical data collected for the study variables, as this provides crucial insight into the findings.

As evidenced by the Rho coefficient of 0.490, which is significant at the regular level, the results collected suggest a substantial correlation between empathy and cooperative learning. This demonstrates the existence of a significant relationship between the two variables. Conversely, the p-value is 0.007, which is less than the predetermined level of significance. This indicates that the null hypothesis is rejected, and the alternative hypothesis is accepted. In light of the aforementioned findings, it can be concluded that there is a correlation between empathy and cooperative learning among psychology students at a private university in Guayaquil in 2023.

These findings are in alignment with the research conducted by Armejo (2018), which elucidates the interconnection between self-esteem and interpersonal skills. This is the same connection that is identified in this research, which means that it aligns with the relationship that both variables have. These findings are accompanied by the observation that students with low self-esteem tend to exhibit inappropriate behaviors, and that their social skills are influenced by the environment in which they are raised, both at home and at school.

In other words, the absence of these aspects in the curriculum can impede the comprehensive development of teachers and, in turn, affect the quality of teaching. Therefore, it is imperative that teacher education programs effectively consider and integrate interpersonal skills and teamwork to better prepare university students for their future roles.

With regard to the variables of interpersonal relationships and cooperative learning, the correlation coefficient was 0.355, indicating a low level of correlation. The p-value is 0.055 greater than 0.05, indicating that the null hypothesis is accepted, and the alternative hypothesis is rejected. This suggests that there is no relationship between interpersonal relationships and cooperative learning among psychology students from a private university in Guayaquil in 2023.

In contrast to the findings of Vera (2020), which indicate a significant correlation between emotional intelligence and collaborative learning in schoolchildren at the M.G.P San Borja 2019 Educational Institution, with a p-value of 0.000, the current study's results suggest the opposite. The findings substantiate the assertion that the advancement of social competencies associated with emotions markedly impacts the enhancement of collaborative learning in fifth-year secondary school students. The year in question is 2019, which corresponds to the M. G. P.

The ability to express interest in events occurring to other individuals and to engage in mutual connection and exchange, as defined by Huamán et al. (2020), can be understood as an understanding of another person and the valuation of the emotions experienced by that person. Goleman (1995) defines empathy as the ability to recognize and appreciate the feelings and sensations of individuals with whom one interacts. Furthermore, empathy enables the identification of these feelings in others, even in the absence of verbal communication. Attitudes, verbal and non-verbal emotions, and their interactions within a social context contribute to the creation of a harmonious and motivating environment for learning.



SEEJPH 2024 Posted: 16-08-2024

The results of our study, which yielded a significantly low value of 0.055 in 2023, are in stark contrast to the findings of Vera (2020), which yielded a value of 0.00. This discrepancy suggests that psychology students from a private university in Guayaquil may face challenges in working cooperatively due to the prolonged impact of the pandemic and the accompanying psychosocial issues. Caballo (1993) asserts that the students did not demonstrate improvement in their interpersonal competence, which encompasses not only emotions and feelings but also the ability to express opinions, respect the rights of others, and recognize the rights of their classmates.

During this period of adolescence, when young people are developing autonomy and moving away from their parents, encouraging them to cultivate feelings of gratitude, solidarity, and understanding, as well as a moral compass, can facilitate their transition to independence. As posited by Papalia et al. (2012), with further investigation by Posada et al. (2021), interpersonal relationships with peers exert a profound influence on adolescent development. This is due to the fact that these qualities are formed during this developmental stage.

In light of the aforementioned considerations, the following discussion will present the findings of a study conducted on university students, with a particular focus on those pursuing psychology at a private university in Guayaquil. These students have been developing their post-pandemic careers in a virtual and hybrid manner, which has resulted in a lack of opportunities for them to hone their interpersonal skills through practice.

As a result of their relative immaturity at the onset of the pandemic in 2020, students were among the significant proportion of the secondary education population that was compelled to conclude their studies remotely. This circumstance contributed to a notable reduction in their opportunities for physical contact and interaction, which are crucial for fostering trust, friendship, and other meaningful relationships. Therefore, it is of paramount importance to ensure that this relationship is maintained by all possible means, as working cooperatively strengthens performance and learning. This is because the development of interpersonal skills depends on maintaining physical proximity.

As Monjas (2000) asserts, alterations in interpersonal interactions represent a fundamental aspect of human existence. These interactions serve not only as a means to achieve categorical goals but also as an end in themselves, constituting an essential component of life. Therefore, the formation of interpersonal connections is not a simple or optional task; it is not something that can be left to chance. Conversely, this objective must be attained by enhancing the institution's environment, which is imperative given that it is a community established for the purpose of education.

A significant correlation was found between the social media dimension and its cooperative learning variable, with a value of 0.415. This suggests that the findings associated with these two variables are noteworthy at the conventional level. This indicates that the results obtained with these two variables are significant at a regular level. Conversely, the p-value is 0.023, which is less than the predetermined significance level of 0.05. This indicates that the null hypothesis is rejected, and the alternative hypothesis is accepted. In conclusion, the findings indicate a correlation between cooperative learning and social responsibility among psychology students at a private university in Guayaquil in 2023.

These results are comparable to those obtained by Rojas (2018), whose findings, according to the tests, yielded a correlation coefficient of r=0.794. The results of this specific study indicate that the t-test value was 6.220, suggesting a notable correlation between social engagement and cooperative learning. This correlation was determined to be statistically significant. This value determined whether the null hypothesis was accepted or rejected. The  $\alpha$  value, which is 1.96, is less than the result of the student's t-test. Consequently, the alternative hypothesis, which posits a relationship between significant learning and participation in alternative social activities among students enrolled in educational institutions within the Huariaca district in 2017, was accepted.

Similarly, students are not encouraged to engage in pedagogical actions that promote social responsibility, which can contribute to the development of their ethical framework and various forms



SEEJPH 2024 Posted: 16-08-2024

of personal and social growth within the context of their educational institution. It is also challenging to identify students who are actively involved in social initiatives related to road culture, productivity, the environment, communication, community support, and the potential for institutional creation.

Significant enhancements to the teaching process can be realized through the implementation of programs that facilitate the exchange of ideas and opportunities for collaboration between university students of disparate generations. As Cadillo and Centeno (2020) observe, the twenty-first century requires individuals to possess the skills necessary to adapt and integrate into an ever-changing world. This underscores the importance of recognizing our collective responsibility to improve both individually and collectively for the benefit of future generations.

The aforementioned findings provide evidence that social media usage or commitment to cooperative work is correlated with and has an effect on students attending these educational institutions. As Vallaeys (2009) asserts, social responsibility is a behavioral construct that prioritizes the provision of assistance to all individuals, predicated on the tenets of exemplary administration and the pursuit of the common good. Consequently, it serves as a foundation for social growth and, subsequently, for educational advancement.

In light of the findings of Romero et al. (2021), which indicate that cooperative work and digital competencies have a significant impact on the teaching practices of distance educators at a representative educational institution (REI) in Caraballo, Peru, these findings are contrasted with those of Romero et al. In 2021, teachers from an REI who work remotely in Caraballo. Furthermore, the implementation of cooperative work has been shown to enhance pedagogical practices, thereby substantiating the notion that such practices are indeed improved. Consequently, it was determined that the advancement of interpersonal abilities is enhanced by involvement in cooperative endeavors, as well as the optimal circumstances for the dissemination of novel knowledge and experiences, which facilitate the enhancement of pedagogical practices in this novel teaching modality. This has been a pivotal turning point for innumerable professionals in the field of education.

It is therefore proposed that socio-constructivist and dialogic theories provide the foundation for this capacity, with supporting evidence. This theory is based on the principle that interaction between peers is beneficial because the growth of the proximal area is measured in such a way as to assess their degree of efficiency and cognitive potential to construct information that will be significant. This is because the members consider themselves equal in their cognitive, behavioral, and logical notions, as Peralta and Roselli (2016) have previously pointed out. This is corroborated by Yerba (2019), who, in his thesis, focused on cooperative learning in students attending a private university in Arequipa. His findings demonstrated that cooperative learning has a positive and substantial correlation with organizational dimensions.

In this context, undergraduate students engage in collaborative learning, employing diverse techniques to comprehend and process information of interest. This approach is designed to enhance the organization of their information. However, the outcomes have not been entirely satisfactory. Research has demonstrated that data reconstruction is subject to specific limitations, necessitating the application of the principle of hierarchy. To this end, the development of skills such as cohesion and coherence in presentation represents a crucial area of focus. In this regard, university students evince a keen interest in teamwork and, in particular, in cooperative learning, which they engage in through hands-on experience. Nevertheless, they also exhibit certain attitudes that are incongruent with positive interdependence and the ultimate reflection of their completed tasks or work. Additionally, they display attributes of independence such as protagonism and distrust, among others, in order to achieve optimal cooperative learning.

The current curriculum should include the teaching of interpersonal skills and cooperative work so that students can manage significant learning and consolidate their learning, being aware of what this implies. To do this, it is necessary to train university students to acquire this skill and lead them to rethink the different levels of complexity of this process, starting again with simple work and



SEEJPH 2024 Posted: 16-08-2024

progressively increasing the complexity so that the student can gradually enhance this skill, at the same time re-enhancing reading comprehension, analysis, the synthesis, and cognitive processes of critical thinking, respecting the learning styles and rhythm of each student.

It is thus incumbent upon educational institutions to recognize the importance of incorporating training in these skills as a crucial element in the professionalization process for university students. These skills represent a crucial element in the generation and acquisition of knowledge. The ability to communicate, active listening, leadership, and general interpersonal and cooperative skills are essential for professional development and the acquisition of new knowledge. These competencies must be promoted selectively by every future professional and every new university student.

As Stenhouse (2003) notes, one of the educational approaches currently in use in the field of education is socio-critical theory. This approach was initially developed in Frankfurt and later reflected by Freire. This strategy underscores the importance of fostering the development of soft skills in students, while also ensuring that the pivotal role of education in students' lives and their status as creators of knowledge are duly acknowledged. Toffler (1990) posits that in this knowledge-based society, it is imperative to implement a curriculum that enables concurrent action research in the classroom and the community. Furthermore, the curriculum must be adaptable to the demands of the information and knowledge society.

A conceptual framework is required that incorporates the various components of competence associated with these skills, including cognitive, motivational, and metacognitive elements. It is imperative that this framework be established across the various professional exit profiles. It is imperative that this be done in order to successfully construct humanistic competence. This is because certain professional aspects of work activity are contingent upon social activity.

Over the past decade, Ecuadorian education has undergone a significant transformation as a result of the implementation of the Organic Law on Intercultural Education (LOEI). This transformation has been accompanied by the implementation of new educational reforms by the Ministry of Education. The objective of these reforms is to implement changes in all types and modalities of educational establishments with the intention of improving student learning and emphasizing the development of social and cognitive skills.

The national curriculum has been modified to align with the requirements of the state, including those related to the pandemic, state budget, digital skills, and modality of study. This modification has resulted in a notable challenge in the sociocognitive development of students, as well as a lack of proficiency in interpersonal skills and group leadership. In this context, educators place an emphasis on developing students' cognitive abilities in order to facilitate the acquisition of more structured knowledge. This can be conceptualized as a training curriculum based on scientific principles, designed to enhance students' skills.

In Ecuador and Peru, the term "quality" in the context of university higher education is defined in accordance with the quality assurance policy as the degree of alignment between the actions undertaken by the university or academic program to implement the guidelines set forth in the mission statement and the institutional objectives (Ministry of Education, 2015; National Council of Education, 2014; UNESCO, 2005). This definition is based on the premise that quality is defined as the degree to which an academic institution implements the guidelines set forth in its institutional mission and purposes.

The organization of knowledge will be enhanced to the extent that cooperative learning is optimized. The ability to interact effectively with others is an essential attribute for the application of knowledge in a professional context.

This research may be regarded as a notable contribution to the academic literature on the subject of cooperative learning, given that it is based on a theoretical framework derived primarily from the seminal work of Johnson, Johnson, and Holubec (1999). The term "cooperative learning" is defined as a process whereby individuals work together with the objective of optimizing their collective



SEEJPH 2024 Posted: 16-08-2024

learning experience, including that of the individual

## 3. Conclusion and future scope

- a. The results of the statistical analysis provide compelling evidence for the necessity of developing a model or program centered on the cultivation of interpersonal skills with the objective of fostering cooperative learning among university psychology students. The positive correlation between interpersonal skills and cooperative learning indicates that enhancing these competencies directly impacts the quality of instruction.
- b. In light of the evidence indicating a robust partnership, the model to be constructed should be sufficiently flexible to accommodate the specific demands of higher education and prioritize competencies that have been demonstrated to be crucial in pedagogical practice at the university level.
- c. The objective is to assess the relevance of the design of the proposal for a model of inclusion of skills. This suggests that the general hypothesis is accepted: namely, that interpersonal skills influence the development of cooperative learning among psychology students at a private university in Guayaquil.
- d. In conclusion, it can be stated that the correlation coefficient between social responsibility and cooperative learning at the conventional level of 0.417 is statistically significant. This demonstrates a substantial association between social responsibility and cooperative learning among psychology students at a private university in Guayaquil in 2023. The results of numerous studies indicate that cooperative learning is an effective pedagogical approach that facilitates students' comprehensive growth and development. This practice, which encourages peer contact and collaboration, facilitates the creation of a dynamic and rewarding learning environment that extends beyond the mere acquisition of academic content.
- e. The model of interpersonal skills and cooperative learning must be designed strategically, incorporating teaching-learning techniques based on participatory action methodologies that consider the dimensions of this study and their respective adaptations of the model in the context of the specific aspects of the psychology career, taking into account the professional trajectory and academic training of the teachers. It is therefore essential to validate the design of this program in order to guarantee its relevance and effectiveness. This process of validation should include improvements and enhancements to the aforementioned model, ensuring that the principles of educational quality are upheld.
- f. It can be concluded from this analysis that it is essential to extend beyond the boundaries of the academic environment. Inter-institutional partnerships have been demonstrated to facilitate the expansion and enhancement of future psychologists' and professionals' competencies, providing them with experiential learning opportunities in authentic work environments. It is imperative that students be offered internships in companies that provide training in this regard, as this will complement their academic training and better prepare them to address the problems they would encounter in professional practice. In this manner, the university will not only fulfill its obligation to educate capable professionals but will also become a catalyst for constructive social transformation

#### Recommendations



SEEJPH 2024 Posted: 16-08-2024

- 1. The directors of the University and the Department of Psychology of the private University of Guayaquil are to implement a continuous training program addressing each aspect that integrates interpersonal skills and collaborative learning. These aspects include, but are not limited to, teamwork management, social skills, effective communication, leadership, and individual and group dynamics. In consideration of the requisite competencies and the anticipated impact on the students' entry and exit profiles, those enrolled in the psychology program will receive a substantial contribution to their cognitive, social, and psychological development.
- 2. It is recommended that this program be expanded and institutionalized to include the coordination of academic development, human talent management, and all other key areas. This should be done as part of a training plan that includes workshops, webinars, and other activities designed to enhance the interpersonal and cooperative learning skills of students and facilitate their application in academic activities. Furthermore, the program should be expanded to include certification in order to have a significant impact on the academic training of future psychologists.
- 3. Once a training program has been launched that includes teachers and students, new integrating projects, faculties, and ecosystems must be produced in order to consolidate the training offer for future psychologists. In this manner, the training program will be modified to align with the requirements of a professional profile that is responsive to present and future demands.
- 4. The use of a teaching strategy known as cooperative learning encourages students to interact with each other and collaborate with each other to achieve common goals. A substantial body of research indicates that participation in this activity is beneficial for the development of cognitive, social, and emotional competencies, particularly those pertaining to interpersonal skills.
- 5. By fostering the growth of students' interpersonal abilities and facilitating cooperative learning, this research has the potential to enhance the quality of psychology instruction. This validation study will confirm the relevance and efficacy of the cooperative learning and interpersonal skills model. Consequently, it will be possible to ensure adherence to the principles of educational quality in the training of future psychologists.
- 6. It is recommended that the university develop strategic and corporate collaborations with organizations from the public, private, and civil sectors. These collaborations should be designed to expand and develop the capacities of future psychologists in terms of their training experiences. The provision of internship opportunities in organizations that offer training in real-world contexts capable of facilitating effective and timely psychosocial assistance in this community will serve as the means through which this objective will be met, which will result in an improvement in the quality of life for individuals in this community.

#### Reference

- [1] Acosta, E. (2023). Making mathematics word problems reliable measures of student mathematics abilities. *Journal of Mathematics Education*, 15-26.
- [2] Acosta, R., Martín, A. V., y Hernández, A. (2022). Nivel de satisfacción en estudiantes de secundaria con el uso de aprendizaje colaborativo mediado por las TIC en el aula. *Revista Electrónica Educare*, 26(2), 23-41.
- [3] <a href="https://www.scielo.sa.cr/scielo.php?script=sci">https://www.scielo.sa.cr/scielo.php?script=sci</a> arttext&pid=S1409-42582022000200023.
- [4] Aguerrondo, I., y Vaillant, D. (2015). El aprendizaje bajo la lupa: Nuevas perspectivas para América Latina y el Caribe.



SEEJPH 2024 Posted: 16-08-2024

Panamá: UNICEF.

- [5] https://panorama.oei.org.ar/\_dev2/wp-content/uploads/2017/09/UNICEF\_UNESCO\_OECD\_Naturaleza\_Aprendizaje\_.pdf#page=246
- [6] Alsina, Á., y Mulá Pons de Vall, I. (2022). Sumando competencias matemáticas y de sostenibilidad: Implementar y evaluar actividades interdisciplinares. http://hdl.handle.net/10256/21394
- [7] Bandura, A., Freeman, W. H., & Lightsey, R. (1999). Self-efficacy: The exercise of control. New Jersey: Freeman. DOI: 10.1891/0889-8391.13.2.158

[8]

- [9] Belbase, S. (2010). Images, Anxieties and Attitudes toward Mathematics. Online Submission.
- [10] https://eric.ed.gov/?id=ED513587
- [11] Briceño, G. (2021). El rol del docente en la enseñanza: la importancia de un educador eficiente. Servicios Sociales ya la Comunidad.
- [12] https://www.studocu.com/es-ar/u/34943345?sid=01704214215
- [13] Canto, Á. G., Sosa, W. E., Bautista, J., Escobar, J., y Santillán, A. (2020). Escala de Likert: Una alternativa para elaborar e interpretar un instrumento de percepción social. *Revista de la alta tecnología y sociedad*, 12(1).
- [14] <a href="https://www.researchgate.net/profile/Alberto-Fernandez-45/publication/361533522">https://www.researchgate.net/profile/Alberto-Fernandez-45/publication/361533522</a> Escala de Likert Una alternativa para elaborar e interpretar un instrumento de percepci on\_social/links/62b736d0d49f803365b96810/Escala-de-Likert-Una-alternativa-para-elaborar-e-interpretar-un-instrumento-de-percepcion-social.pdf
- [15] Cifuentes, G. (2018). Percepción de la enseñanza de las matemáticas en tres alumnos de educación media según la etnomatemática: estudio exploratorio.
- [16] http://repobib.ubiobio.cl/jspui/handle/123456789/2923
- [17] Coll, C. (2007). Las competencias en la educación escolar: algo más que una moda y mucho menos que un remedio. *Aula de innovación educativa*, 161, 34-39.
- [18] https://www.uaeh.edu.mx/campus/icshu/investigacion/aace/cincide/macrieb/documentos/LlJ001.pdf
- [19] Collazos, C. A., y Mendoza, J. (2006). Cómo aprovechar el "aprendizaje colaborativo" en el aula. *Educación y educadores*, 9(2), 61-76.
- [20] http://ref.scielo.org/xf5jt9
- [21] Congreso de la República del Perú. (2021). Ley Nº 31250, Ley del Sistema Nacional de Ciencia, y Tecnología e innovación.
- [22] <a href="https://busquedas.elperuano.pe/download/url/ley-del-sistema-nacional-de-ciencia-tecnologia-e-innovacion-ley-n-31250-1968664-1">https://busquedas.elperuano.pe/download/url/ley-del-sistema-nacional-de-ciencia-tecnologia-e-innovacion-ley-n-31250-1968664-1</a>
- [23] Córdoba, C. (2020). Estrategias de enseñanza basada en el software that quiz, dirigida al desarrollo de las competencias básicas en matemáticas, de los estudiantes del quinto grado. [Tesis de maestría, Universidad Metropolitana de Educación, Ciencia y Tecnología de Panamá]
- $[24] \ \underline{https://repositorio.umecit.edu.pa/bitstream/handle/001/2920/Tesis\%20de\%20Maestr\%c3\%ada-CarmenCordoba.pdf?sequence=1\&isAllowed=y$
- [25] Cruz, M. J. (2020). Percepción que tienen los clientes del servicio brindado por Coopepococí RL en el segundo semestre



SEEJPH 2024 Posted: 16-08-2024

del año 2019.

- [26] https://repositorio.ulatina.ac.cr/bitstream/20.500.12411/171/1/TFG\_Ulatina\_Maria\_Cruz\_Marin.PDF
- [27] Damián, I. F. (2022). Aprendizaje colaborativo y su influencia en competencias de matemática, en estudiantes de secundaria de la institución educativa UGEL 02, 2021. [Tesis doctoral, Universidad César Vallejo]
- [28] https://repositorio.ucv.edu.pe/handle/20.500.12692/81382
- [29] Di Martino, P., & Zan, R. (2015). The construct of attitude in mathematics education. From beliefs to dynamic affect systems in mathematics education: Exploring a mosaic of relationships and interactions, 51-72.
- [30] https://doi.org/10.1007/978-3-319-06808-4 3
- [31] Domínguez, I. H., Pacheco, N. S. H., y González, S. H. (2018). Inducción a la validez y confiabilidad de instrumentos de medición en estudios de opinión.
- [32] https://www.academia.edu/download/58017175/EEO\_Web\_nov.pdf#page=179
- [33] Do'stov, S., & Xolmirzayev, N. (2023). THE IMPORTANCE OF MATHEMATICS IN HUMAN LIFE AND DIFFERENT APPROACHES TO TEACHING MATHEMATICS IN SCHOOLS. Spectrum Journal of Innovation, Reforms and Development, 11, 87-90.
- [34] https://sjird.journalspark.org/index.php/sjird/article/view/535
- [35] Ecos, A. M., Manrique, Z. R., y Huamán, J. (2020). *Análisis de grupos de trabajo virtuales y su relación con el aprendizaje colaborativo de la matemática en estudiantes universitarios. Propósitos y representaciones, 8*(SPE3), e595.
- [36] https://doi.org/10.20511/10.20511/pyr2020.v8nSPE3.595
- [37] Evans, J. (2000). Adult's mathematical thinking and emotions: a study of numerate jpractices. Routledge Falmer.
- [38] Hhttps://doi.org/10.4324/9780203185896
- [39] Farfán, J. F., Crispín Rommel, L.-, Carreal-Sosa, C. L., Quiñones-Castillo, K. G., & Farfán-Pimentel, D. E. (2022). Aprendizaje colaborativo en el desarrollo de competencias matemáticas en estudiantes de secundaria. *Ciencia Latina Revista Científica Multidisciplinar*, 6(5), 5335-5357. https://doi.org/10.37811/cl\_rcm.v6i5.3505
- [40] Fernández, V. (2006). Las TIC en la enseñanza del inglés como Lengua Extranjera (ILE): una herramienta online y una off-line, *Revista latinoamericana de Tecnología Educativa*, 5(2), 409-416.
- [41] http://www.unex.es/didactica/RELATEC/sumario\_5\_2.htm
- [42] Fonseca, J. R. S. (2012). Student`Attitudes Toward Math Learning. En N.M. Seel (Ed), *Encyclopedia of the Sciences of Learning*
- [43] https://doi.org/10.1007/978-1-4419-1428-6 1078
- [44] Freré, J. S., Véliz, J. P., Sarco, E. M., Campoverde, K. J. (2022). La percepción, la cognición y la interactividad. *RECIMUNDO*, 6(2), 151-159.
- [45] https://doi.org/10.26820/recimundo/6.(2).abr.2022.151-159
- [46] Gairín, J. (1990). Las actitudes en educación: un estudio sobre educación matemática. Barcelona: Promociones y Publicaciones Universitarias. Print.
- [47] https://jabega.uma.es/permalink/34CBUA\_UMA/1bi0plq/alma991003367469704986
- [48] Galarza, C. A. (2021). Diseños de investigación experimental. CienciAmérica: Revista de divulgación científica de la



SEEJPH 2024 Posted: 16-08-2024

Universidad Tecnológica Indoamérica, 10(1), 1-7.

- [49] https://dialnet.unirioja.es/servlet/articulo?codigo=7890336
- [50] Gobierno Regional de Piura (2017). Plan de desarrollo regional concertado 2016 -2021. Impresión Arte Perú S. A. C.
- [51] Goldin, G. A. (2000). Affective pathways and representation in mathematical problem solving. *Mathematical thinking and learning*, 2(3), 209-219.
- [52] https://doi.org/10.1207/S15327833MTL0203\_3
- [53] González, B., y León, A. (2013). Procesos cognitivos: De la prescripción curricular a la praxis educativa. *Revista de Teoría* y *Didáctica de las Ciencias Sociales*, (19), 49-67.
- [54] https://www.redalyc.org/pdf/652/65232225004.pdf
- [55] Gonzáles, N. y Martínez, P. (2020). Relevancia de las competencias transversales en el desarrollo profesional del graduado. Percepción del estudiante. *Profesorado, Revista De Currículum Y Formación Del Profesorado, 24*(2), 388-413.
- [56] https://doi.org/10.30827/profesorado.v24i2.15041
- [57] Gunawardena, C. N., Lowe, C. A., & Anderson, T. (1997). Analysis of a global online debate and the development of an interaction analysis model for examining social construction of knowledge in computer conferencing. *Journal of educational computing research*, 17(4), 397-431.
- [58] https://doi.org/10.2190/7MQV-X9UJ-C7Q3-NRAG
- [59] Gutiérrez Cherres, J. A. (2012). Estrategias de enseñanza y resolución de problemas matemáticos según la percepción de estudiantes del cuarto grado de primaria de una institución educativa-Ventanilla.
- [60] https://repositorio.usil.edu.pe/items/26df69a6-e910-4cc1-9686-22f349cfc1a0
- [61] Guven, B., & Cabakcor, B. O. (2013). Factors influencing mathematical problem-solving achievement of seventh grade Turkish students. *Learning and Individual Differences*, 23, 131-137.
- [62] https://www.example.edu/paper.pdf
- [63] Guzmán Solano, L. A. P. (2019). Competencias matemáticas: Creencias y sus implicaciones en el diseño curricular.
- [64] http://hdl.handle.net/10818/53990
- [65] Hannula, M. S. (2002). Attitude towards mathematics: Emotions, expectations and values. *Educational studies in Mathematics*, 49(1), 25-46.