

RESEARCH ARTICLE

CRITICAL THINKING IN THE EDUCATIONAL IN THE FIELD OF EDUCATION

*Cleyssen Benavides-Caruajulca**

*Escuela de Postgrado, Universidad César Vallejo, Chiclayo, Perú.

Abstract

The purpose of the study was to identify and analyse the contributions made to the development of critical thinking in education. The study corresponds to basic research, with a systematic review research design, for the data collection procedures was carried out by means of the bibliographic and systematic documents search where scientific articles were selected in the search engines of Ebsco and Scielo, the same ones that have been ordered in an Excel matrix to facilitate their quick localization; in total 20 articles were selected. In the analysis technique, the documentary review was used, after the analysis of the results and the conclusions obtained according to the objective, it has been determined that the most predominant investigations have been those of quantitative, descriptive, qualitative and mixed type. The development of critical thinking is essential to become an integral person, so that the subject can define or fully understand a situation or problem that leads to its solution. In this context, a student, as a critical thinker, must develop constantly stimulated specific abilities so that they can be sufficiently enhanced to become a true skill. *ASEAN Journal of Psychiatry, Vol. 22(10) November, 2021; 1-12.*

Keywords: Critical Thinking, Teaching, Teaching Practices, Skills.

Introduction

For decades, educational policies have been based on rote teaching at all educational levels, being the simplest and most rudimentary action, which has been used over many years disguised under traditional learning, which simply consists of accumulating information itself that can show results in cases represented by a minority, but at present teaching has evolved through pedagogical practice, turning from rote learning to meaningful learning, which is an educational challenge of the twenty-first century, as a consequence of the era of knowledge, the implantation of a new meaning to teaching that promotes critical thinking as a way to ensure that students can pour opinions, adapt to reality, encourage innovation and problem solving thus achieving their highest academic level.

In this regard, points out that education in all educational systems aims to develop the capacities that the person possesses for which, through curricular programs, it launches a set of pedagogical activities that contribute to the development of language, thought, reflection, creativity, autonomy, entrepreneurship and other human faculties.

Human capacities integrate knowledge, affection, socialization and the principles of life. These aspects are achieved procedurally and, if it is oriented from the family, society and education, then you will have students capable of performing in different contexts to which it develops. In the international arena, specifically in Spain, states that on the poor results of Spaniards obtained in the latest PISA report, the Ministry of Education specifies that the objectives of the new curriculum, whose implementation is scheduled for the 2022-2023

academic year and which will be approved through a royal decree go precisely in that direction, slim down the contents so that students memorize less and develop other types of higher-order skills such as critical thinking.

The objective of the Executive is to design a shorter, less encyclopedic, more flexible and more focused curriculum on basic competences and essential learning, with simpler assessment tools, which contributes to preparing the student for a world that changes very fast and in which people must continue training throughout their lives. Likewise, in the absence of concrete initiatives by the Administration so that schoolchildren learn to identify false information on the Internet and to make a critical consumption of content, private projects have emerged that are landing in Spanish educational centers.

In coincidence, adds that the moment that comprises teaching and learning should be understood as the foundation for the integral formation of the person, highlighting their development for continuous learning and favoring higher-order capacities, such as critical thinking, so, in a class it must be ensured that everyone learns to observe, analyze, interpret, issue an opinion or argue their own positions within the framework of theoretical bases. This educational purpose must be assumed at all educational levels, and better yet, during basic education, as well as it must be transversal in all curricular lines.

Regarding the Latin American context, Betancourth et al., states that one of the demands and specifically of Chilean higher education, consists of the construction of training and evaluation proposals, which allow young people to develop and strengthen their critical thinking, considering the benefits at a personal, professional, social and disciplinary level that entails the development of skills such as understanding the general panorama of a situation, coping with it, making ethical decisions, autonomy in acts and consequently, the transformation of social reality [1]. Therefore, it is of great importance that institutions lead their own training actions,

prioritizing the learning process of students and involving the teacher within it, hence the development of critical thinking constitutes a channel that makes it possible to comply with this objective, to the extent that it favors the integral formation and the execution of educational practices according to the demand to form critical citizens and Participatory.

In the Peruvian context, the Ministry of Education, specifies that this seems to be a new issue; however, human action leads to see that as a society it has not yet developed with responsibility and autonomy, which is why, in the Peruvian educational system, the competency-based approach, among the different aspects of student development, pays attention to the achievement of reasoning, creativity and critical thinking. Consequently, states that this type of thinking favors inductive or deductive reasoning based on proposed premises or reality. Reflection, even though it is a human faculty, is learned in the process of life, with the support of methods, strategies or materials that avoid theoretical orientation alone.

However, in the educational context, it is observed with concern the little reflection on the different events that are lived, which projects, the image of a human group with little initiative to transform its reality. Faced with the ideas expressed, it is urgent that educational institutions pay attention to developing cognitive processes that favor the ability to reason, for which, students propose solutions to a diversity of facts or issues that demand to be resolved. To do this, you need to use strategies that lead you to make deductions or conjectures that then allow you to reach conclusions and proposals based on reason.

Likewise, it is relevant to highlight the importance of critical thinking and its link to educational processes, in order for students and teachers to work together in mechanisms that promote the understanding and application of knowledge in different scenarios, enabling the reorganization and restructuring of information and, therefore, the assignment of meaning to what is thought, feels and does. In this sense, the problem to be investigated is how is the

development of critical thinking in the educational field currently being addressed? Hence, the objective of this research was to identify and analyze the contributions made to the development of critical thinking in the educational field.

Methodology

Study design

The study is basic type; the research is oriented to achieve a new knowledge in a systematic way, with the sole objective of increasing the knowledge of a concrete reality [2]. The study design is the systematic review; it is a clear and structured summary of the available information aimed at answering a specific clinical question. Since they are made up of multiple articles and sources of information, they represent the highest level of evidence within the hierarchy of evidence. Systematic reviews are characterized by having and describing the process of transparent and understandable elaboration to collect, select, critically evaluate and summarize all available evidence regarding a particular topic. They facilitate and summarize the contents of multiple articles that respond to the same theme [3].

Data collection procedure

The bibliographic and systematic search of documents was carried out, for this purpose scientific articles selected in the Ebsco and Scielo search engines were established as a unit of analysis, which have been ordered in an Excel matrix to facilitate their quick location. The search and selection of the articles began in the period 2017 to 2021.

The way in which the selection of the articles was proceeded followed by an organized structure, which consisted first of all in choosing them based on the revision of the title, the abstract, as well as the words used for the search of the article, to verify if they are consistent with the established inclusion criteria.

The words that were used for the search were placed according to the language that specifically allowed each of the databases and then the results were filtered according to the time period.

The words or terms used for the search were as follows: "critical thinking" "critical thinking in education". Secondly, we proceeded to read the selected articles, which met the inclusion criteria. We obtained 45 full-text articles that were estimated to analyses their eligibility. As a result of the above, he was left with 20 articles. In turn, inclusion and exclusion criteria have been considered: within the first ones, it has been taken into account that the articles are from indexed journals that they are complete, that they are from the period 2017-2021, that they contain most of the keywords and that they contribute to the study.

While, among the exclusion criteria, it can be mentioned that the articles that were not taken into account are those that were incomplete, that did not contain information appropriate to the subject that did not belong to indexed journals, that were outside the search period whose contribution was not relevant to the study.

Analysis technique

In the present research work, the document review technique was used, which was used to review research related to critical thinking, allowing a better collection of data. As an instrument, data collection sheets of scientific articles were used, which allowed a database registry of research.

Data collection consists of collecting information in order to analyse and understand them, through various techniques such as observation, interviews, and documents. The data collection sheet of the documents found contains the following data: reference, objective summary, type/design of research, keywords, statistical techniques used and contributions of the study for this research.

In this study, scientific articles containing information about critical thinking were collected, from which the main data were extracted for their identification (authors, year, journal), as well as their main contributions, results and conclusions to which they arrived.

Results

This section shows the results of the systematic review in the literature of the different articles found on critical thinking. In the following

(Figure 1) it is possible to appreciate that the articles are divided between the Ebsco search engine representing 50% of the information found and finally Scielo with 50% of the articles that will be useful for research.

Selected articles

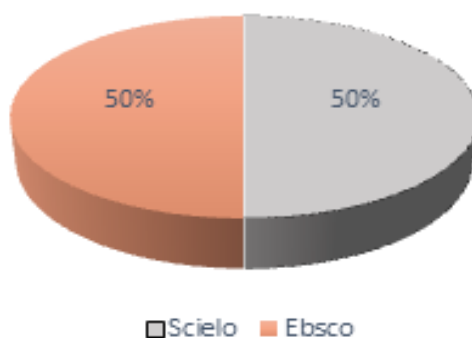


Figure 1: Percentage of articles according to search engine.

As it is appreciated that half of the information is obtained from Ebsco and this is due to the wide variety of articles on the same topic offered combined with the offer of other types of documents more than just scientific articles, this makes it have a greater advantage over the rest of the search engines consulted.

Regarding the variable under study Núñez et al., states that, in the face of cutting-edge ideas, educational institutions need to develop cognitive processes that promote reasoning skills, so that students find solutions to a variety of facts or problems that need to be solved [4].

To do this, you need to use strategies that lead you to make deductions or conjectures that then allow you to reach conclusions and proposals based on reason.

As for the 20 articles found in both databases, these have been distributed according to their year of publication, obtaining that from 2017 we have 2 articles; of the year 2018 4 articles; of the

year 2019 1 article; of the year 2020 4 articles and of the year 2021 7 articles.

Thus being able to affirm that most articles have been in the last five years between 2017-2020, and that consequently contain very recent information on the subject analyzed, therefore, their verification will be very useful in the development of the research, also evidences a greater approach to the subject, in this regard, Ossa et al., states that critical thinking is a very complex construct, defined from very diverse theoretical frameworks, as a result of instruments of different nature, in this way, the idea of making visible the ability of critical thinking in a more integrated way arises [5].

That is, consider cognitive and metacognitive skills as a basis and on the other hand the possibility of generating self-regulation and motivation in order to achieve a critical disposition, which implies being open to multiple approaches to make decisions and intervene in social reality (Figur 2).

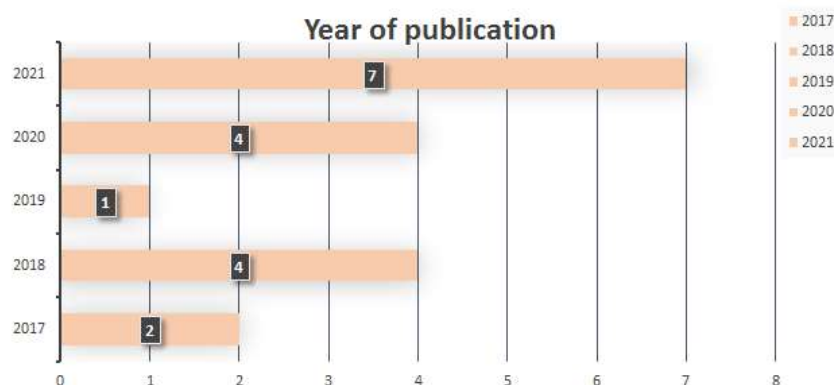


Figure 2: Search result of articles according to year of publication.

Another of the components analysed is the author and publication country of the 20 selected scientific articles, in this way we will be able to know which are the countries that carry out the

highest production of articles, then the (Table 1) is shown in which it is specified in authors and country.

Table 1: Authors of articles by country of publication.

No	Author	Country
1	Núñez A, Gallardo M, Aliaga A, y Díaz R.	Colombia
2	Gómez D, y Gascón A.	Spain
3	Tabares A, Betancourth M, y Martínez A.	Colombia
4	López I, Padilla M, Juárez M, Gallarday S, y Uribe Y.	Peru
5	Cobos A, Gualdrón E, y de la Barrera A.	Colombia
6	Mindiola I, y Castro J.	Colombia
7	López C, Flores R, Galindo A, y Huayta Y.	Peru
8	Pérez G, Bazalar J, y Arhuis W.	Costa rica
9	Madrid M.	Colombia
10	Rivadeneira P, Hernández BI, Loor L, y Palma M.	Colombia
11	Morales M, y Díaz F.	Mexico
12	Ramada J, Solaz J, y López SJ.	Colombia
13	Palma M, Ossa C, Ahumada H, Moreno L, y Miranda C.	Chile
14	Cangalaya L.	Peru
15	Mena A.	Chile
16	Ossa J, Palm R, Lagos G, Quintana M, y Díaz H.	Uruguay
17	Mackay R, Franco E, y Villacis W.	Cuba
18	Quintero V, Palet J, y Olivares S.	Brazil
19	Salazar D, y Ospina B.	Colombia
20	Prieto H.	Chile

In the table presented, the origin of the authors of the selected scientific articles is appreciated, appreciating that they come from both Europe and Latin America, being preponderantly the Latin American context the one that contributes a

greater number of articles, the number of authors per article is also appreciable, existing a similar proportion between those that present a single author and those articles that have two or three authors (Figure 3).

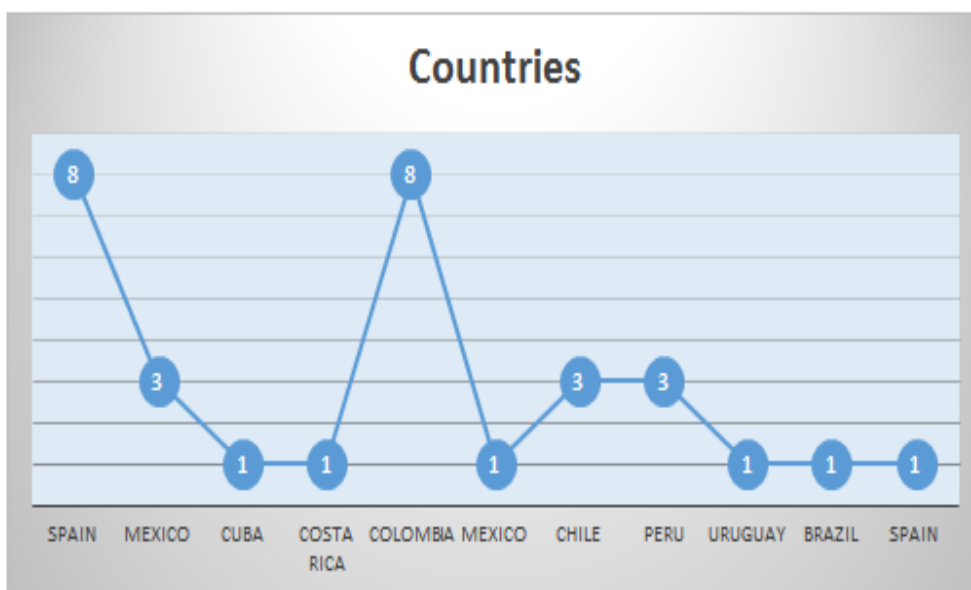


Figure 3: Distribution of articles according to country of publication.

In the figure shown above you can see that of the 20 articles selected according to the country of publication; we have that 8 articles are from Colombia, 3 articles from Chile, 3 from Peru, while in Costa Rica, Spain, Mexico, Uruguay, Cuba and Brazil only 1 article was selected from each, these data evidence and coincide according to Mackay, et al., that logic, constructed or resolved through abstract and critical mental thoughts, it makes people gain greater knowledge and their critical level of decision is more precise, since thoughts, previous experiences, the ability to reason in simulated problems, the order and clarity that the mind has gained through the practice of critical thinking processes converge [6]. For its part, highlights the importance of implementing strategies, considering among some of the key strategies to strengthen the development of critical thinking in students,

debates and interaction in class [7]. Consequently, Tabares et al., considers that among these is also critical argumentation which contributes to the construction of positive and negative arguments against a controversial idea, involving the individual in a process that leads him to reformulate his thought. Meanwhile, Morales et al., adds that, in relation to these strategies and critical thinking approached from the case methodology, it has been shown that these facilitate and promote active learning, help problem solving, in addition to encouraging critical thinking and providing the possibility of inquiring about the situations and dilemmas posed [8]. Next, the relationship of the titles of the articles with the contribution to the research is presented, the same that is related to critical thinking; being of relevant importance because it will allow a greater theoretical support in the research as well as the comparison of the results obtained (Table 2).

Table 2: Title and contribution of the articles analyzed in terms of virtual education and digital gaps.

No	Article title	Contribution to the study
1	Didactic strategies in the development of critical thinking in basic education students	In the face of cutting-edge ideas, educational institutions need to develop cognitive processes that promote reasoning skills, so that students find solutions to a variety of facts or problems that need to be solved. To do this, you need to use strategies that lead you to make deductions or conjectures that then allow you to reach conclusions and proposals based on reason.

2	Development of critical thinking in secondary school students: design, application and evaluation of an educational program.	Although in the university environment some programs have been carried out for the development of critical thinking, in secondary education the situation is much more worrying, its presence, as an explicit skill, is practically nil in the classrooms. Given this situation, the gradual implementation of specific educational programs of critical thinking among the student is absolutely necessary.
3	Intervention program in critical debate on critical thinking in university students	The study aimed to analyze the impact of an intervention program based on critical debate about the critical thinking of undergraduate psychology students. As for the effect of the intervention program, it can be observed that it has greatly increased and improved the critical thinking of students. To this is added the consideration that critical argumentation contributes to the construction of positive and negative arguments against a controversial idea, involving the individual in a process that leads him to reformulate his thought.
4	University pedagogy based on generic competencies to develop critical thinking skills in students of the national university of San Martín.	It manifests the importance of critical thinking skills, which is essential to becoming an integral person. While many educators recognize the need to help their students develop these skills, many teachers feel that they did not have enough time to devote to this goal, others recognize that they did not have the ability to think effectively and therefore did not feel up to being able to meet this challenge.
5	Oral argumentation for the development of critical thinking in the classroom	Key strategies to strengthen the development of critical thinking in seniors are discussions and interaction in class. These occur naturally and are carried out by students, where they express their views regarding a specific topic, a question or a text, usually given by the teacher, but where students also compare, share and discuss their ideas with those of their peers.
6	Development of critical thinking through asynchronous discussion forums with 8th grade students	The analysis of the information allowed to evidence the participation of the students, as a relevant element in the process of sensitization, giving rise to the role of moderator, for the teacher. This indicates that, involving students from the design phase of a mediation is favorable for the development of critical thinking skills, because it stimulates the development of potentialities, corrects poor cognitive functions and leads the student to learn in their potential area; in addition, it develops the capacities to think, feel, create, innovate, discover and transform its environment.
7	Critical thinking in higher education students: a systematic review.	Whereas one of the most interesting challenges for teachers in this new era of science and technology is to teach students to think, on their own, without taking into account the curricular experience or the profession chosen by them; the responsibility is that the student manages enough tools to solve problematic situations by themselves, encouraging critical thinking in them.
8	Diagnosis of critical thinking of primary school students in Chimbote, Peru.	The study points to a deficit of critical thinking in students, which leads to highlight educational interventions based on the use of active learning strategies, applicable from pedagogical practice in educational institutions. In addition, it is perceived that current education remains the same despite time, so the results demonstrate the need to implement educational programs applicable from the National Education Curriculum.
9	Development of critical thinking from the area of Social Sciences in basic secondary education.	The study reflects on the kind of training that the teacher of Social Sciences must have, that in order to understand the socioeconomic and cultural reality that inhabits, value cultural, popular and local knowledge, in short, understand social phenomena from critical thinking, it is necessary an educator whose training tends to the intellectual development of the student and precisely this will not be able to materialize if the attitude of continuing to do things persists. likewise, year after year.

10	Strengthening critical thinking in higher education	An interesting starting point would be for universities to include studies on critical thinking in their lines of research. These studies could be aimed at diagnosing the level of critical thinking of their students and also of the members of the community (link with the community) to which they belong.
11	Critical thinking through a teaching case: an educational design investigation	In relation to critical thinking approached from the methodology of cases, it has been shown that these facilitate and promote active learning, help problem solving, in addition to encouraging critical thinking and providing the possibility of inquiring about the situations and dilemmas raised; likewise, they stimulate the analysis, by demanding from the students' projections of their actions in circumstances such as those exposed and preparing for decision-making and positions.
12	Willingness towards critical thinking, academic level, gender and problem solving in secondary education.	Improving problem-solving performance continues to be a central goal of science and mathematics teachers, as well as researchers in science and mathematics didactics. To achieve this goal, they proposed that problem-solving skills had to be developed in specific classroom activities, and that it was necessary to know and address the difficulties of students during resolution.
13	Adaptation and validation of the critical Thinking Tasks test in university students.	This article provides that the Critical Thinking Tasks (TPC) instrument is reliable, it is based on the idea that the discipline influences the development of critical thinking; in short, it is a priority to strengthen specific skills such as inquiry, analysis and communication and improve this skill.
14	Critical thinking skills in university students through research.	At present it is extremely necessary to know about the skills involved in critical thinking, so that the subject can define or fully understand a situation or problem that leads him towards its solution. It is in this context that a student, as a critical thinker, must develop specific capacities constantly stimulated, in such a way that they can be sufficiently enhanced to become a true skill.
15	A taxonomy of educational means for the development of critical thinking: Domains of action and textual typologies.	In this sense, when promoting critical thinking through educational means, whether in school education or in continuing education, it is recommended to resort to a coordinated use of different media, so that each of them fulfills a specific role in addressing specific components of critical thinking, at the same time that it complements the others.
16	Analysis of instruments for measuring critical thinking.	Critical thinking is a very complex construct, defined from very diverse theoretical frameworks, as a result of instruments of different nature, in this way, the idea of making visible the ability of critical thinking in a more integrated way arises. That is, to consider cognitive and metacognitive skills as a basis and on the other hand the possibility of generating self-regulation and motivation in order to achieve a critical disposition, which implies being open to multiple approaches to make decisions and intervene in social reality.
17	Critical thinking applied to research	His contribution lies in the fact that he points out that logic, constructed or resolved through abstract and critical mental thoughts, makes people gain greater knowledge and their critical level of decision is more precise, since thoughts, previous experiences, the ability to reason in simulated problems, the order and clarity that the mind has gained through the practice of critical thinking processes converge.

18	"Development of critical thinking through the application of problem-based learning"	The study provides that the educational system requires a new comprehensive and prospective model that guides the action of teachers and students towards very clear pre-established ends. In this way, it specifies that Problem-Based Learning is a teaching strategy that promotes generic competencies and skills for the training and development of critical thinking. In this sense, critical thinking allows future professionals, within their work context, to make informed decisions, for effective and effective results.
19	Critical thinking level of first and final semester undergraduate students in nursing at a university in Medellin, Colombia.	Being aware of the importance of critical thinking, it is necessary to move now towards action by implementing strategies that go beyond the inclusion of competencies in curricula or training profiles. Didactic pedagogies and institutional policies should be proposed towards the promotion of critical thinking, accompanied by objective measurements of the levels of critical thinking and its domains, with validated and reliable instruments that demonstrate the achievement of the objective.
20	Critical thinking and self-knowledge	To assume that the epistemological dimension is the most important in terms of critical thinking, that is, the evaluation of the reasons that support it, would mean that human beings can effectively control all their 'nature' through reason, control their emotions, feelings, body, etc., and even the conditions of the environment in which they find themselves, the socio-cultural context.

The contributions of the studies collected according to Pérez et al., indicate a deficit of critical thinking in students, which leads to highlight educational interventions based on the use of active learning strategies, applicable from pedagogical practice in educational institutions [9]. In addition, it is perceived that current education remains the same despite time, so the results demonstrate the need to implement educational programs applicable from the National Education Curriculum.

Discussion

After conducting an exhaustive search of the articles related to the research, it is necessary to point out that the 20 investigations found coincide and stand out, Cangalaya, that at present it is extremely necessary to know about the skills that intervene in critical thinking, in such a way that the subject can define or fully understand a situation or problem that leads him towards its solution [10]. In this context, it refers that a student, as a critical thinker, must develop specific capacities constantly stimulated, in such a way that they can be sufficiently enhanced until they become a true skill. Given this, López, et al., highlights the importance of critical thinking skills, which is essential to become an integral person [11]. While many educators

recognize the need to help their students develop these skills, many teachers feel that they did not have enough time to devote to this goal, others recognize that they did not have the ability to think effectively and therefore did not feel up to being able to meet this challenge. In this way, López, et al., adds that one of the most latent challenges of the teacher in this new era of science and technology, is to teach students to think critically, without taking into account the curricular experience, nor the profession chosen by them; the responsibility is for students to use enough tools to solve problematic situations on their own, encouraging critical thinking in them [12].

Likewise, Gómez et al. point out that, although in the university environment some programs have been carried out for the development of critical thinking; in secondary education the situation is much more worrying, their presence, as an explicit skill, is practically null in the classrooms [13].

Faced with this situation, the gradual implementation of specific educational programs of critical thinking among the student is absolutely necessary. Likewise, Madrid, adds that it is necessary an educator whose training tends to the intellectual development of the

student and precisely this will not be able to materialize if the attitude of continuing to do things in the same way year after year persists [14]. For his part, Quintero, et al. Emphasizes that the educational system needs a new comprehensive and forward-looking model to guide teachers and students towards very clear established goals.

In this way, he points out that, among the strategies to develop critical thinking, is problem-based learning, since it is a teaching strategy that promotes the formation and development of general skills and competencies of critical thinking [15]. Mindiola et al. emphasized that student participation is a relevant element in the awareness process, resulting in the role of the teacher as moderator [16]. This shows that engaging students from the design stage of mediation is conducive to the development of critical thinking skills, because it stimulates the development of potential, corrects the lack of cognitive function, and guides students to learn in their potential areas; In addition, it also cultivates the ability to think, feel, create, innovate, discover and transform the environment [17-20].

Finally, after analyzing the results of the selected articles, we can conclude that, being aware of the importance of critical thinking, it is necessary to act by implementing strategies that go beyond the incorporation of competencies in the curriculum or training profile, so that the pedagogy of critical thinking education and institutional policies must be proposed and promoted, objectively measuring the level of critical thinking and its field, using proven and reliable tools to demonstrate the achievement of goals. In this sense, when promoting critical thinking through educational means, whether in basic or higher education, it is recommended to coordinate the use of different means so that each one can play a specific role while complementing the others [21-24].

Conclusion

After the analysis of the results and conclusions obtained according to the objectives of the systematic review, it has been determined that the most predominant research has been

quantitative, descriptive, qualitative and mixed; according to the database prepared, the studies are distributed between 10 Articles by Ebsco and 10 by Scielo for a total of 20 selected articles.

On the other hand, these are organized from different educational realities among them with greater relevance of the Latin American context; it is worth specifying that the studies correlate with the focus of priorities around the concept of critical thinking. Consequently, it can be sintered from the analysis of the variables under study that, in reference to critical thinking, taking into account that one of the most relevant challenges faced by teachers in this new technological era is to teach students to think independently and that they can handle enough tools to solve problems by themselves and encourage them, their critical thinking, so that teaching should be student-centered and support their independent learning, which requires teachers to use various teaching strategies to stimulate the development of critical thinking, *i.e.*, identify, analyze, evaluate, classify, and explain what they learn.

However, according to what has been analyzed, the approach to critical thinking at present in the development of critical thinking, there are still many shortcomings both in students when it comes to imparting their thinking in a reasoned way and in teachers when addressing strategies that help develop this skill, and this reality persists at all educational levels so it is considered that this, should be a priority to be installed in secondary and higher education, as it would allow the change in pedagogical practices and the quality of education, the idea is to put into practice a series of cognitive and procedural skills that allow building, communicating and evaluating scientific knowledge.

Likewise, the contributions identified in the study allowed us to develop our study and to be able to finish and expose that in the present educational reality it is extremely necessary to know about the skills that intervene in critical thinking, thus, these skills will allow the student to be established within a context that motivates him to think, so it is fair to make visible the ability of critical thinking in a more integrated way. That is, to consider both cognitive and

metacognitive skills as a basis and on the other hand the possibility of generating self-regulation and motivation in order to achieve a critical disposition, which implies being open to multiple approaches to make decisions and intervene in social reality.

Therefore, it is recommended to give continuity to other studies, which allow to clearly controlling the subject investigated with innovative programming and the use of activities that promote the development of critical thinking, taking into account the style and pace of learning of students, directing at the same time, the skills of critical thinking for the improvement of educational quality. Likewise, promote the teaching style where the development of skills such as interpreting, analyzing, evaluating and arguing their theoretical positions is encouraged, as well as the apprehension of knowledge that is functional in their future life.

- Promote spaces and activities that allow reflection and analysis of thought in order to form reflective and analytical human beings respecting diversity.
- Likewise, inform, sensitize and involve the student's environment in the development and stimulation of these skills since they are useful tools in the life of each human being both academically and personally.

References

1. Tabares A, Betancourth M, y Martínez A. Programa de intervención en debate crítico sobre el pensamiento crítico en universitarios. *Educación Y Humanismo*. 2019; 22.
2. Álvarez A. Clasificación De Las Investigaciones. Universidad de Lima. 2020.
3. Moreno B, Muñoz M, Cuellar J, Domancic S, y Villanueva J. Revisiones sistemáticas: Definición y nociones básicas. *Rev Clin Periodoncia Implantol Rehabil Oral*. 2018; 11(3): 184-186.
4. Núñez A, Gallardo M, Aliaga A, y Díaz R. Estrategias didácticas en el desarrollo del pensamiento crítico en estudiantes de educación básica. *Eleuthera*. 2020; 22(2): 31-50.
5. Ossa J, Palma R, Lagos G, Quintana M, y Díaz H. Análisis de instrumentos de medición del pensamiento crítico. *Ciencias Psicológicas*. 2017; 11: 19-28.
6. Mackay R, Franco E, y Villacis W. El pensamiento crítico aplicado a la investigación. *Universidad Sociedad*. 2018; 10: 336-342.
7. Cobos A, Gualdrón E, y de la Barrera A. La argumentación oral para el desarrollo del pensamiento crítico en el aula. *Revista Boletín Redipe*. 2021; 10: 48-65.
8. Morales M, y Díaz F. Pensamiento crítico a través de un caso de enseñanza: Una investigación de diseño educativo. *Sinéctica*. 2021; 56: e1215.
9. Pérez G, Bazalar J, y Arhuis W. Diagnóstico del pensamiento crítico de estudiantes de educación primaria de chimbote, Perú. *Revista Electrónica Educare*. 2021; 25(1): 1-11.
10. Cangalaya L. Habilidades del pensamiento crítico en estudiantes universitarios a través de la investigación. *Desde El Sur*. 2020; 12: 141-153.
11. López I, Padilla M, Juárez M, Gallarday S, Uribe Y. Pedagogía universitaria basada en competencias genéricas para desarrollar habilidades del pensamiento crítico en estudiantes de la universidad nacional de san martín. *Propósitos y Representaciones*. 2020; 8.
12. López C, Flores R, Galindo A, y Huayta Y. Pensamiento crítico en estudiantes de educación superior: una revisión sistemática. *Revista Innova Educación*. 2021; 3: 374-385.
13. Gómez D, y Gascón A. Desarrollo del pensamiento crítico en estudiantes de educación secundaria: Diseño, aplicación y evaluación de un programa educativo. *Profesorado: Revista de Curriculum y Formación*

- Del Profesorado. 2018; 22(4): 269–285.
14. Madrid M. Desarrollo del pensamiento crítico desde el área de Ciencias Sociales en la educación básica secundaria. *PARA*. 2018; 18(22): 49–64.
 15. Quintero V, Palet J, y Olivares S. Desarrollo del pensamiento crítico mediante la aplicación del Aprendizaje Basado en Problemas. *Psicología Escolar y Educacional*. 2017; 21.
 16. Mindiola I, y Castro J. Desarrollo del pensamiento crítico a través de foros de discusión asincrónicos con estudiantes de 8° grado. *Revista Unimar*. 2021; 39(1): 126-144.
 17. Mena A. Una taxonomía de los medios educativos para el fomento del pensamiento crítico: Dominios de acción y tipologías de texto. *Estudios Pedagógicos*. 2020; 46: 203-222.
 18. Ayinde OM. An Instructional Design Model for TPACK Object-Based Mathematics Card Games. *Middle Eastern Journal of Research in Education and Social Sciences*. 2021; 2(4): 53-74.
 19. Palma M, Ossa C, Ahumada H, Moreno L, y Miranda C. Adaptación y validación del test tareas de pensamiento CRítico en estudiantes universitarios. *Revista De Estudios Y Experiencias En Educación*. 2021; 20(42): 199-212.
 20. Prieto H. El pensamiento crítico y autoconocimiento. *Revista De Filosofía*. 2018; 74: 173-191.
 21. Ramada J, Solaz J, y López SJ. Disposición hacia el pensamiento crítico, nivel académico, género y resolución de problemas en educación secundaria. *Sophia*. 2021; 17(1): 13-23.
 22. Rivadeneira P, Hernández BI, Loor L, y Palma M. El fortalecimiento del pensamiento crítico en la educación superior. *Revista Boletín Redipe*. 2019; 8: 44-49.
 23. Asukwo A, James G, Asukwo AE. Family-related determinants and implications of low female enrolment in electrical trade in adamawa state. *Middle Eastern Journal of Research in Education and Social Sciences*. 2021; 2(4): 27-36.
 24. Salazar D, y Ospina B. Nivel de pensamiento crítico de estudiantes de primero y último semestre de pregrado en enfermería de una universidad en Medellín, Colombia. *Universidad Y Salud*. 2019; 21: 152-158.

Corresponding Author: Cleysen Benavides-Caruajulca, Escuela de Postgrado, Universidad César Vallejo, Chiclayo, Perú.

Email: bcsdpub@gmail.com

Received date: 22 November, 2021

Accepted date: 6 December, 2021