



## FORMATIVE RESEARCH AND RESEARCH SKILLS IN UNIVERSITY STUDENTS

Fabricio Daniel Saltos-Pinargote<sup>1</sup>, Tania Elizabeth Vásquez-Álvarez<sup>2</sup>,  
Maritza Yelene Vásquez-Alvarez<sup>3</sup>, Vanessa del Pilar Pacheco-Zuñiga<sup>4</sup>

---

Article History: Received: 02-07-2023      Revised: 05-08-2023      Accepted: 28-08-2023

---

### Abstract

*The objective of the study is to propose a formative research model with the aim of improving research skills in students of a university in Santo Domingo de los Tsáchilas, Ecuador. The methodological approach used is quantitative and descriptive-prepositive, using a non-experimental design of transactional scope. The information for the situational diagnosis was collected through surveys and questionnaires. The results show that the evaluation of formative research is distributed in the levels of "high" with 48.1%, "medium" with 51.4% and "low" with 0.5%. Similarly, the achievement of investigative skills is divided into: "high" with 59%, "medium" with 40.1% and "low" with 0.9%. In addition, Pearson's "r" correlation was 0.33, indicating a significant positive correlation. Concluding that there is a direct effect between formative research with investigative skills, coming to present a solution proposal that addresses directly.*

**Keywords:** *Formative Research, Investigative Skills.*

---

<sup>1,2,3,4</sup> César Vallejo University, Doctorate in Education, Piura-Peru.

<sup>1</sup> fsaltosp@ucvvirtual.edu.pe, <https://orcid.org/0000-0002-8206-3958>

<sup>2</sup> tvasquezalv@ucvvirtual.edu.pe, <https://orcid.org/0000-0002-7146-2902>

<sup>3</sup> mvasquezalv@ucvvirtual.edu.pe, <https://orcid.org/0000-0002-2613-466X>

<sup>4</sup> dpachecozu@ucvvirtual.edu.pe, <https://orcid.org/0000-0003-0616-1414>

**DOI: 10.48047/ecb/2023.12.Si8.766**

## 1. Introduction

The primary mission of the university is to guide the academic progress of its students. Within this process, one of the most significant aspects consists of guiding and bringing students closer to an adequate investigative practice. This investigative capacity will allow them to contribute to society by addressing issues in the educational, economic, cultural and social fields. Accordingly, the university has established several departments, such as the Vice Chancellors and the Research Directorate. These entities have the purpose of formulating guidelines, plans and programs that generate research topics and approaches in accordance with the world reality, so that they can provide solutions to the problems identified by UNESCO (1998). In addition, this initiative also seeks to promote convergence and collaboration between different cultures and nations, as highlighted by Tünnermann et al. in (2018).

In response to this situation, Latin American universities aim to globalize their areas of influence, establishing collaborations with educational institutions in Asia and Europe. This implies a true exchange of knowledge. Five decades ago in Ecuador, the university focused its efforts mainly on teaching. In this period, the research had a limited presence due to the scarcity of bibliographic resources and the low production of publications (Ayala, 2015).

In the following decades, although research was gradually given greater importance, it did not achieve the expected development or prominence, even despite having a specific budget for scientific research. There was an urgent and necessarily need to transform the Ecuadorian university. It was in this context that the relevance of incorporating research components into university curricula was strongly emphasized, specifically in state institutions. However, initially, the situation remained the same with a limited number of studies and a very small scientific production. Starting in 2008, during the term of Rafael Correa Delgado as president, higher education underwent a drastic change. Previously, research activity had not been highlighted, that is, university research had not been given the relevance it deserves in the training of future professionals, an essential necessity for the progress of any society. In this context, as Ramírez (2012) mentioned.

Article 350 of the Ecuadorian Constitution of 2008 establishes, as the purpose of higher education, the acquisition of scientific and humanistic knowledge, based on science, ancestral knowledge Rivera et al. (2017), as well as research, innovation, promotion and dissemination of technological culture, to face national challenges. However, the truth is that what is expressed in the documents differs significantly from what is carried out in reality. As mentioned, until that moment the university research had not fulfilled its objective.

In this environment, with the objective of advancing towards the achievement of the purposes of Higher Education, the university has resorted to Formative Research, which consists of the pedagogical skill that the professor uses to promote both the development of the study plan and the student training. as a researcher. In other words, Formative Research is the educational process that involves investigative practice as an integral part of learning. This also enables students to acquire the research skills and abilities necessary for their chosen specialization.

Formative research is closely related to the curriculum and academic preparation for a profession Parra (2004). In addition, its main purpose is the improvement of academic procedures. This connection implies the creation of a study program dedicated specifically to this approach.

At a university located in Santo Domingo of the Tsáchilas, various efforts have been made in order to strengthen the professional training of students and give adequate recognition to research. However, it is still necessary to improve the interaction between teachers and students. The need to make continuous adjustments in the research programs has been identified, since certain deficiencies still persist in said processes. These deficiencies include the repetition of topics, insufficient teamwork between students and tutors, and an outdated digital repository that does not always solve the problems raised in the investigations. In addition, the lack of exchange of results has also been pointed out by Quevedo et al. (2021).

To achieve this objective, in the process of developing research skills, it is argued that the university is supporting the task of training future researchers. According to Rubio et al. (2015), the educational focus revolves around the student;

therefore, the curriculum must incorporate competencies aimed at improving students' analytical and questioning skills. The combination of systematic and rational methodological approaches clearly highlights the importance of formative research in the training of researchers. In this sense, this discipline allows the student to become an essential component of the process, as León and his colleagues (2014) point out. The search for knowledge is presented as a process of active construction of their own conscious and reasoned understanding by new students.

Given the circumstances described, it is necessary to optimally design a formative research program aimed at strengthening investigative skills in students at a university located in Santo Domingo of the Tsáchilas.

Its practical relevance derives from the search to strengthen, in the real field, the investigative capacity of the students, through the investigative training process, from a methodological perspective, tools will be used for the collection and analysis of information, with the possibility of applying it to future projects to verify its validity and reliability. In addition, this relevance is manifested by providing the entire university community with elements to assess whether the variables and indicators are interconnected, thus determining the level of willingness towards the acquisition of investigative skills and the ability to address environmental problems.

The objective of the study is to propose the design of a formative research program whose purpose is to improve investigative skills in students of a university in Santo Domingo -Ecuador in order to achieve the stated purpose. Determine the relationship that exists between the affective component of Formative Research with investigative skills in students; as well as analyze the relationship that exists between the cognitive component of Formative Research with investigative skills in students and determine the relationship that exists between the behavioral component of Formative Research with investigative skills in students.

The concept of "formative research" refers to the use of research as a tool to teach and learn Orozco (2016). Its purpose is to share information already known by students and motivate them to apply it in *Eur. Chem. Bull.* **2023**,12(Special issue 8), 8422-8429

their understanding (acquisition of knowledge or skills). In parallel, Díaz et al. (2017) point out that this discipline aspires to train innovative professionals capable of thinking critically, learning continuously and approaching problems and questions with curiosity to solve challenges in their field of specialization. Formative research promotes the skills required for constant learning Orozco (2016), these are essential for updating professional skills and abilities. This perspective is supported by Fajardo et al. (2015), who highlight that formative research seeks to improve educational quality, promote the development and improvement of teaching strategies and, through proper management, increase the effectiveness of the services offered.

Formative research aims to foster the development of the skills necessary for this specific job Anzola (2007). These competences cover the observation, search, selection and organization of information, the integration of knowledge and the transfer of learning, as well as the ability to adapt and be flexible in interdisciplinary contexts and apply the knowledge acquired.

In order for formative research to be achieved, it is essential that both teachers and students assume a determined attitude towards the research training process that takes place in the field of formative research. This attitude will determine whether it contributes to solving the problems present in the formative context of the research itself. In relation to this, Chacón (2020) argues that the attitudes of teachers and students towards research, whether favorable, unfavorable or neutral, are made up of cognitive, emotional and behavioral factors.

In the field of the second variable, the notion of competence is addressed. In the words of Patiño (2017), competence, ability or conduct assumes a relevant role, since it implies that learning is not limited solely to the acquisition of knowledge, but rather implies the ability to comply with predefined standards and act ethically. due. On the other hand, according to San Martín (2011), cited by Ortiz et al. (2021), the competence represents a substantial advance compared to the traditional approach to school teaching, which focused on conceptual, procedural, and attitudinal knowledge. Rather than constituting a completely new administrative

structure, the competition represents a significant improvement in this regard.

The educational research competence is essential that the research skills that these are exhaustive, adaptable, ethical, flexible, creative, interdisciplinary, versatile and highly complex (Z. García & Aznar, 2019), in addition, according to Aznar et al. (2011), as mentioned in Z. García & Aznar (2019), highlight that these skills are developed in a contextual manner and cover the particularities of the professional group in question, as well as the external demands that are imposed on it. impose. To advance towards a certain professional profile, it is necessary to promote certain knowledge, attitudes, and aptitudes.

Investigative competencies, according to Guamán et al. (2020), argues that these are characterized by adopting a complex and critical approach to all aspects of the subject under investigation, with a dynamic nature. In addition, the same author points out that supporting this type of training requires a critical and advanced look, which encompasses the integrity and interconnection that are involved. Likewise, Arzuaga et al. (2022) detail that the competence presents multiple facets (disciplinary, formative, transversal, historical-cultural, dialectical-logical, interpretative, holistic), which indicates that there has not been a definitive consensus in the definition of the competences, and that they need more efforts to promote integration and conceptual reflection.

## 2. Materials and Methods

This study is based on a quantitative approach that adheres to the positivist paradigm. In the words of Ricoy (2006), this supports research that uses statistical tools with the purpose of supporting a hypothesis. For its purposes, the research will be applied basic research that, according to CONCYTEC (2020), has the purpose of describing the resources (methods, formalities, and techniques) that allow scientific knowledge to satisfy a known insufficiency, through fully recognized and precisely established procedures; these conditions will help meet the needs of individuals or social groups.

For an investigation to be adequately addressed, there are three approaches, which according to Hernández et al. (2010) are: quantitative, qualitative,

and mixed. For this study, according to Ramírez et al. (2018), the quantitative approach uses, to find patterns in specific phenomena, statistical analysis and the quantitative use of data collection that is used to test hypotheses based on numerical measurements. According to Sousa et al. (2007), research is descriptive in nature because it does not manipulate variables or search for causal relationships, but rather observes, describes, and confirms aspects of a phenomenon.

The research design adopted is of a non-experimental nature, following the definition of José Arias & Covinos (2021). In this approach, the variables under study are not exposed to specific stimuli or experimental conditions and the research items are evaluated in their natural environment without artificial alterations. No manipulations were performed on the variables under study. In addition, it is cross-sectional, since according to Arias & Covinos (2021) it collects the information in a single moment and a single time; Along the same lines, R. Hernández et al. (2014) maintain that its purpose is to describe variables and examine their occurrence and interactions over time.

According to Jesus Arias et al. (2016), a population is defined as a set of precise, limited, and accessible conditions that will serve as the basis for selecting a sample, complying with a predefined set of requirements. This definition is tailored to the research questions and objectives. Likewise, López and Fachelli (2017) point out that a population is a set of individuals that constitute the analysis framework from which statistical, thematic or theoretical conclusions are sought. In this context, the population in question is made up of 443 students enrolled in Law at a university, in the year 2023, information provided by the Secretary of the institution. Regarding the selection of the sample, according to Arias (2012), this is defined as a specific and relevant fraction extracted from an accessible set. Additionally, following the approach of López (2004), the sample is characterized by being a portion that adequately reflects the population in question, and methods such as formulas and logic are used to determine the size of the sample. According to the calculation applied, the sample is made up of 212 students enrolled in the Law course of a university located in Santo Domingo, Republic of Ecuador.

Table 1: Sample of Law Students

Level/ Semester	Working day		Total
	morning	nocturnal	
Sixth	20	27	47
Seventh		48	48
Octavo		78	78
Nineth		39	39
Total	20	192	212

### 3. Analysis and Discussion of Results

For this research, despite the availability of different sampling approaches, it will be decided to use probabilistic sampling. In accordance with the observations of Otzen & Manterola (2017), this method makes it possible to assess the probability of inclusion of each investigated individual in a random sample through specific techniques. Within the different types of probabilistic sampling, it has been chosen to work with simple random sampling (MAS) due to the nature of this research. In this context, Pimienta (2000) highlights that, in the MAS, each member of the population has the same probability of being selected to be part of the sample. The results found are shown in Figure 1.

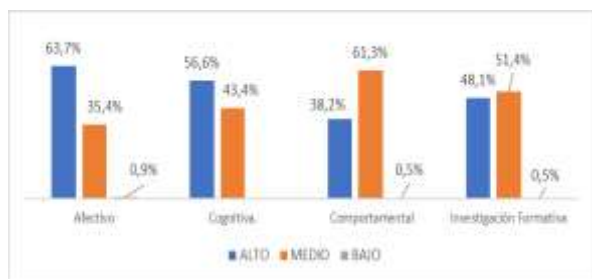


Figure 1: Results of the Variable: Formative Research

When carrying out the study, the following distribution is obtained: 48.1% are in the "High" range, 51.4% in the "Medium" range and 0.5% in the "Low" range. These results offer an overview that there is a significant percentage that demonstrates mastery in Formative Research. However, an even larger percentage are in a position where it is necessary and mandatory to make every possible effort to improve their Formative Research competency, as they are at the intermediate level of this statistical analysis. This suggests that they have gradually started to move into this realm but have a lot of room for improvement in terms of their Formative Research competency.

The initial dimension present in Formative Research is the Affective Aspect. The results indicate that, after being surveyed, the students are *Eur. Chem. Bull.* **2023**,12(Special issue 8), 8422-8429

distributed in the following categories: 63.7% are in the "High" category; 35.4% are in the "Medium" category; and 0.9% is positioned in the "Low" category. This statistical relationship shows that the emotional disposition with which Formative Research has been approached is remarkably high. Likewise, there is a minority segment that needs to make an effort so that the formative research process is carried out with enthusiasm, since, if it is not faced with satisfaction, the desired results may not materialize as expected.

Regarding the cognitive dimension, after carrying out the corresponding analysis, it is observed that 56.6% of the students are in the "High" category. In addition, 43.4% are in the "Medium" category and, finally, no student is enrolled in the "Low" category. This distribution clearly reflects that the cognitive aspect related to Formative Research has experienced significant progress. However, it is important to highlight the notable percentage that is located at the intermediate level, which indicates that considerable efforts are still required for students to achieve a deep knowledge that supports effective and productive management in the field of Formative Research.

The final dimension of the Formative Research variable explored in this study is behavioral. The results obtained from the students surveyed are the following: 38.2% are in the "High" interval; 61.3% are located in the "Medium" interval; and 0.5% is in the "Low" range. These findings highlight the need to give more attention to the behavioral aspect, since the predominant proportion at the "Medium" level implies that the work related to the behavioral aspects of Formative Research should be substantially strengthened. This approach is crucial to achieve significant improvements in educational research processes.

Continuing with the statistical analysis, the Investigative Competences variable shown in figure 2 has also been evaluated.



Figure 2: Research Competencies Variable

59% of the students who participated in the survey are in the "High" interval, according to the results obtained from the surveys. On the other hand, 40% is located in the "Medium" interval, while 1% is positioned in the "Low" interval. This relationship indicates that the majority of the surveyed population has acquired investigative skills, since more than half have reported their acquisition in the survey results. However, it is crucial to continue with a solid approach, since close to half of the population surveyed reflect that their investigative skills need significant strengthening. This must be addressed with emphasis, since it is of great importance, priority and relevance in any training process that all students acquire these skills at the same level. In this way, everyone will be able to generate high-quality academic products.

When examining the first dimension of the second variable, that is, the "Knowledge" dimension, the following is observed: 41.5% of those evaluated are in the "High" interval, while 58.5% are at the "Medium" level. after completing the survey; no person registers in the "Low" interval.

This statistical analysis reveals that, in terms of knowledge, there has been an adequate level of acquisition. However, it remains to strengthen and improve the knowledge of the students, so that they can more fully develop their investigative skills.

Regarding the second dimension of this variable, we have the following: 71.2% are located in the "High" interval; 28.3% is located in the "Medium" interval and the "Low" point is located in 1% of those surveyed. With this, it is noted that most of the students have a very good attitude towards the achievement of investigative skills; but there is more than a quarter of the students, that their attitude must improve considerably before the acquisition of said competences.

The third dimension related to skills has been subjected to statistical analysis, resulting in the following data: 64.6% of the students surveyed are in the "High" interval, while 34.5% are in the "High" interval. High". "Medium", and 0.9% is in the "Low" level. These results indicate that the students' abilities to acquire investigative skills are at an advanced level, although the need for improvement is evident, since a considerable percentage has not yet reached the optimal level of skills.

## Correlational Analysis

A correlational analysis was carried out, the result of which is shown in the following table.

Table 2: Correlation between Formative Research and Investigative Competences

R de Pearson		Achievement of Investigative Competences
Formative Research	Correlation coefficient	0,33
	One. (Bilateral)	0,000
	N	212

There is a significant relationship between formative research and investigative skills in university students; since, Table 2 shows that the significance (bilaterality = 0.000) is less than 0.005. The parameter mentions that if the " $\alpha$ " is greater than 0.05; the null hypothesis is accepted and the " $\alpha$ " less than 0.05 is rejected. By virtue of this, the null hypothesis has been rejected, accepting the alternative hypothesis.

After carrying out the corresponding analysis, it can be affirmed that the objectives established in this study have been developed as planned. In this way, it was shown that the results obtained present similarities with those obtained by Bravo (2021), whose proposal for a formative research model seeks to improve the investigative competence of students. The existence of a positive relationship between these variables is confirmed, which has been contrasted with the results obtained in this research work.

The significant two-sidedness of 0.000 and a Pearson "r" correlation coefficient of 0.824 indicate a high normal correlation between both variables. In addition, the author of this study supports the importance of a strong relationship with formative research to facilitate the acquisition of knowledge that leads to a significant improvement in students' research skills.

## Research Proposal

The proposal elaborated on the didactic order based on the socio-formative approach of competences is shown in figure 3.



Figure 3: Didactic Order based on the Socio-Formative Approach of Competences Fountain.

(García, López and Fernández, 2009)

The elaborated proposal seeks to generate metacognitive processes with the appropriate use of various components such as resources, activities, evaluations and competencies, all these actions are part of a didactic sequence that is based on the socio-formative approach.

#### 4. Conclusions

It has been concluded that there is a direct relationship between the two study variables, for which a formative research plan has been developed with the aim of promoting its progress, thus seeking to enhance investigative skills among students of a university of Santo Domingo, Republic of Ecuador. In addition, with this approach it is intended to contribute to the development of affective, cognitive and behavioral aspects, as well as to strengthen knowledge, attitudes and capacities in the same field.

#### References

[1] Anzola, O. (2007). The formative investigation in the processes of investigation assumed in the university. *Lee MBA*, 0(10), 68–73.

[2] Arias, F. (2012). *The Research Project- Introduction to scientific methodology* (E. Episteme (ed.); Sixth edic). file:///C:/Users/User/Downloads/The\_research\_project\_6th\_Edition.pdf

[3] Arias, Jesús, Villasís, M., & Miranda, M. (2016). The research protocol III: the study population. *Allergy Mexico Magazine*, 63(2), 201–206. <https://www.redalyc.org/pdf/4867/486755023011.pdf>

[4] Arias, José, & Covinos, M. (2021). Research design and methodology. In *Focus Consulting EIRL*. <https://repositorio.concytec.gob.pe/handle/20.500.12390/2260>

[5] Ayala, E. (2015). Scientific research in Ecuadorian universities. *Annals Magazine*, 1(57), 61–72. <https://dspace.ucuenca.edu.ec/bitstream/123456789/22935/1/6.pdf>

[6] Chacon, L. (2020). Attitude towards formative research and its relationship with the development of research skills in students of the IX and x cycle of the systems engineering career of a private

university in Lima, during the 2019 period. In *Applied Microbiology and Biotechnology*, 2507(1). <https://repositorio.utp.edu.pe/handle/20.500.12867/4764>

[7] CONCYTEC. (2020). Practical guide for the formulation and execution of Research and Development Projects (R&D). In National Council of Science, Technology and Technological Innovation. [http://www.untels.edu.pe/documentos/2020\\_09/2020.09.22\\_formuacionProyectos.pdf](http://www.untels.edu.pe/documentos/2020_09/2020.09.22_formuacionProyectos.pdf)

[8] Diaz, O., Montes, M., & Cangahuala, O. (2017). Formative Research in Undergraduate: A Proposal from the Curriculum of the Faculty of Accounting Sciences of the PUCP. *Hermes Scientific Journal*, 19. [https://www.redalyc.org/journal/4776/477653850003/html/#redalyc\\_477653850003\\_ref28](https://www.redalyc.org/journal/4776/477653850003/html/#redalyc_477653850003_ref28)

[9] Fajardo, E., Henao, Á., & Vergara, O. (2015). Formative research, perspective from nursing students the training research, perspective from nursing students. *Barranquilla (Col.)*, 31(3), 558–564. <https://revistas.upch.edu.pe/index.php/RMH/article/view/1010>

[10] Garcia, Z., & Aznar, I. (2019). The development of investigative competences, an alternative to train professionals in child pedagogy as research teaching staff. *Educare Electronic Magazine*, 23(1), 1–22.

[11] Guamán, V., Herrera, L., & Espinoza, E. (2020). The investigative competences as an imperative for the formation of knowledge in the current university. *Conrad Magazine*, 16(72), 83–88. <http://scielo.sld.cu/pdf/rc/v16n72/1990-8644-rc-16-72-83.pdf>

[12] Hernández, R., Fernández, C., & Baptista, P. (2010). *Research Methodology* (McGrawHill (ed.); Fifth ed.). <https://www.icmujeres.gob.mx/wp-content/uploads/2020/05/Sampieri.Met.Inv.pdf>

[13] Lopez, P. (2004). Population and sampling. *Zero Point Journal*, 69–74. [http://www.sky.org.bo/sky.php?script=sci\\_arttext&pid=S1815-02762004000100012](http://www.sky.org.bo/sky.php?script=sci_arttext&pid=S1815-02762004000100012)

[14] Lopez, P., & Fachelli, S. (2017). Quantitative social research methodology. [https://ddd.uab.cat/pub/caplli/2017/185163/metinvsoccaa\\_cap2-4a2017.pdf](https://ddd.uab.cat/pub/caplli/2017/185163/metinvsoccaa_cap2-4a2017.pdf)

[15] Orozco, M. (2016). Research as a training strategy. *Andean Research*, 18(32), 1437–1438. <https://www.redalyc.org/journal/2390/239047318001/html/>

[16] Ortiz, J., Greca, I., & Adúriz, A. (2021). Conceptualization of competences: Systematic review of his research in Primary Education. *Faculty, Curriculum and Teacher Training Magazine*, 25(1), 223–250.

[17] Otzen, T., & Manterola, C. (2017). Sampling Techniques on a Study Population. *International Journal of Morphology*, 35(1), 227–232.

[18] Vine, C. (2004). Notes on formative research. *Education and Educators*, 7, 57–77. <http://educacionyeducadores.unisabana.edu.co/index.php/eye/article/view/549>

[19] Patino, R. (2017). Central theme memories of the colloquium in Accounting Education. *Seemergen*, 15(28), 19–33. <https://revistas.usantotomas.edu.co/index.php/activos/article/view/4919/pdf>

- [20] Pepper, R. (2000). Probabilistic surveys vs. not probabilistic. *Politics and Culture*, 13, 263–276.
- [21] Quevedo, N., García, N., Cañizares, F., & Gaviláñez, S. (2020). The formation of conceptual, attitudinal and procedural investigative knowledge in university students. *Conrad Magazine*, 4(1), 1–23. [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1990-86442020000400364#:~:text=It was possible to confirm that the success](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1990-86442020000400364#:~:text=It was possible to confirm that the success)
- [22] Quevedo, N., García, N., Cañizares, F., & Gaviláñez, S. (2021). Creation of investigative attitudes, skills and knowledge in face-to-face and virtual courses with law students in Santo Domingo, Ecuador. *Cognizance Magazine*. ISSN 2588-0578, 6(2), 145.
- [23] Ramírez, O., Cruz, G., & Vargas, E. (2018). An approach to social capital and tourism from the mixed approach and stakeholder mapping. *Experimental Anthropology*, 18, 55–73.
- [24] Ramírez, R. (2012). Transform the University to transform Society. In SENESCYT (Ed.), *Transforming the university to transform society*, 2012, pp. 124-138 (Second ed.). <https://www.educacionsuperior.gob.ec/wp-content/uploads/downloads/2012/12/Transformar-la-Universidad-para-Transformar-la-Sociedad.pdf>
- [25] Ricoy, C. (2006). Contribution on research paradigms. *Education (UFSM)*, 31(1), 11–22. <https://www.redalyc.org/pdf/1171/117117257002.pdf>
- [26] Rivera, C., Espinosa, J., & Valdés, Y. (2017). Scientific research in Ecuadorian universities. Priority of the current educational system. *Cuban Journal of Higher Education*, 36(2), 113–125. <http://scielo.sld.cu/pdf/rces/v36n2/rces11217.pdf>
- [27] Rubio, J., Baños, R., & Berlanga, V. (2015). Formative Research as a Learning Methodology in the Improvement of Transversal Competences. *Procedia - Social and Behavioral Sciences*, 196(196), 177–182.
- [28] Sousa, V., Driessnack, M., & Costa, I. (2007). Review of Outstanding Research Designs for Nursing. Part 1: Quantitative Research Designs. *Latin American Journal of Nursing*, 15(3), 1–6. <https://www.scielo.br/j/rlae/a/7zMf8XypC67vGPrXVrVFGdx/?format=pdf&lang=es>
- [29] Tünnermann, C., Aguirre, C., Marble, F., Sebastian, J., Theiler, J., Wood, L., Rodriguez, M., Sweep, R., & Rodriguez, S. (2018). Higher education, internationalization and integration in Latin America and the Caribbean. In CRESS Collection 2018. <https://unesdoc.unesco.org/ark:/48223/pf0000372633/PDF/372633spa.pdf.multi>
- [30] Unesco. (1998). Higher education in the 21st century: Vision and action. *Rev Reprod*, October, 226765. [https://unesdoc.unesco.org/ark:/48223/pf0000116345\\_spa](https://unesdoc.unesco.org/ark:/48223/pf0000116345_spa)