Conciencia Digital

ISSN: 2600-5859
Vol. 7 No. 3.2, pp. 53 – 68, September 2024

www.concienciadigital.org

Métodos experimentales para impulsar las prácticas pre profesionales de los estudiantes del bachillerato técnico profesional

Experimental methods to promote pre-professional practices in vocational technical high school students

[1] Brigida Aracely Zambrano Moreira https://orcid.org/0009-0007-6471-4001
Master in Ppedagogy with a mention in Technical Professional Training, Bolivarian University of Ecuador, Guayaquil, Ecuador.
bazambranom@ube.edu.ec

[2] Eliana Adelaida Cordero Velez https://orcid.org/0009-0009-9319-9728
Master in Ppedagogy with a mention in Technical Professional Training, Bolivarian University of Ecuador, Guayaquil, Ecuador.
elianacordero85@gmail.com

[3] Luis Manuel Maceo Castillo https://orcid.org/0000-0002-4223-7490
Bolivarian University of Ecuador, Guayaquil, Ecuador.
lmmaceoc@ube.edu.ec

[4] Ramon Guzman Hernandez https://orcid.org/0009-0005-3190-4808
Bolivarian University of Ecuador, Guayaquil, Ecuador.
rguzman@bolivariano.edu.ec

Scientific and Technological Research Article
Sent: 07/15/2024
Revised: 10/08/2024
Accepted: 03/09/2024
Published: 09/26/2024
DOI:https://doi.org/10.33262/concienciadigital.v7i3.2.3192

Please quote:

Zambrano Moreira, BA, Cordero Vélez, EA, Maceo Castillo, LM, & Guzmán Hernández, R. (2024). Experimental methods to promote pre-professional practices of technical-professional high school students. ConcienciaDigital, 7(3.2), 53-68.https://doi.org/10.33262/concienciadigital.v7i3.2.3192

DIGITAL CONSCIOUSNESS,andIt is a multidisciplinary, quarterly journal, which will be published electronically. Its mission is to contribute to the training of competent professionals with a humanistic and critical vision who are capable of presenting their research and scientific results to the same extent that their intervention promotes positive changes in society.https://concienciadigital.org
The journal is published by Editorial Ciencia Digital (a prestigious publisher registered with the Ecuadorian Book Chamber with membership number 663).www.celibro.org.ec

Conciencia Digital
ISSN: 2600-5859
Vol. 7 No. 3.2, pp. 53 – 68, September 2024
www.concienciadigital.org

Palabras claves:
Métodos experimentales, prácticas pre-profesionales, actividades, capacitación.

Resumen

Introducción: Los métodos experimentales son esenciales para los estudiantes de bachillerato técnico profesional porque brindan habilidades, técnicas y destrezas. A través de ellas los estudiantes pueden comprobar en las prácticas pre-profesionales a fin de obtener una destreza laboral acorde al mercado actual. **Objetivo:** Elaborar una propuesta de metodologías experimentales innovadoras que optimicen las prácticas pre-profesionales de los estudiantes, fomentando así su desarrollo integral en el contexto educativo, laboral y social en la Unidad Educativa "Dr. Odilón Gómez Andrade". **Metodología:** La investigación fue de tipo descriptiva sobre la problemática de las carencias en la utilización de los métodos experimentales necesarios para fortalecer las prácticas pre- profesionales. Se utilizó el enfoque cuantitativo, los métodos empleados fueron inductivo-deductivo y el de análisis. Para la recolección de información se aplicaron las técnicas: de observación, entrevista y la encuesta a estudiantes de bachillerato técnico y docentes. **Resultados:** Los resultados indican que después de la utilización de métodos experimentales los estudiantes han cambiado su percepción respectos a las prácticas pre-profesionales. No obstante, también se resaltan los desafíos como la necesidad de la capacitación de los docentes en la implementación de varios métodos, técnicas y estrategias en el proceso de aprendizaje de los estudiantes. **Conclusión:** La investigación es factible y pertinente. Propone soluciones a las necesidades de los estudiantes en la realización de métodos experimentales para obtener un mejor aprendizaje permitiendo mejorar sus prácticas pre- profesionales. **Área de estudio general:** Educación. **Área de estudio específica:** Pedagogía en Formación Técnica Profesional. **Tipo de artículo:** original.

Keywords:
Experimental methods, pre-professional practices, activities, training

Abstract

Introduction: Experimental methods are essential for vocational technical high school students because they provide skills, techniques, and abilities. Through them, students can check pre-professional practices to obtain work skills in accordance with the current market. Objective: Prepare a proposal for innovative experimental methodologies that optimize the pre-professional practices of students, thus promoting their comprehensive development in the educational, work, and social context in the "Dr.

ISSN: 2600-5859
Vol. 7 No. 3.2, pp. 53 – 68, September 2024

"Odilón Gómez Andrade." Methodology: The research was descriptive on the problem of deficiencies in the use of experimental methods necessary to strengthen pre-professional practices. The quantitative approach was used, the methods used were inductive-deductive and analysis. To collect information, the following techniques were applied: observation, interview and survey of technical high school students and teachers. Results: The results indicate that after the use of experimental methods, students have changed their perception regarding pre-professional practices. However, challenges are also highlighted, such as the need for teacher training in the implementation of various methods, techniques, and strategies in the students' learning process. Conclusion: The research is feasible and relevant. It proposes solutions to the needs of students in conducting experimental methods to obtain better learning, allowing them to improve their pre-professional practices.

Introduction

The components that develop the didactic action are aimed at promoting meaningful learning and the development of investigative skills during the didactic action, including prior organizers, analogies, problem-based learning, project-based learning, among others (Fontanilla & Mercado, 2021, p. 569). These experimental methods improve students' ability to manage and develop innovative solutions, preparing them for the challenges of the work and academic environment. Aligning themselves with a market that is constantly evolving. The set of these didactic components establishes a participatory and dynamic learning environment, essential for the pre-professional training of competent students.

Experimental methods are crucial for technical baccalaureate students because they provide practical and applied experience that complements the theory learned in the classroom, developing necessary technical skills and abilities. Through them, students can directly experiment with agricultural techniques, production processes and natural resource management, which not only enriches their professional understanding and competence, but also prepares them to face the challenges of the labor market, increasing their employability and ability to innovate in their future professional field.

Specifically, Botella & Ramos (2019) state that: "project-based learning, in contrast to traditional teaching methodologies, has as its starting point a specific question or

challenge that must be resolved through the construction of a project" (pp. 127-141). Currently, educational institutions have developed curricula and programs related to work competencies, being essential that these changes respond to social, economic and productive transformations, as an essential basis for those graduates who must carry out learning as part of a flexible, open and permanent process, therefore, pre-professional practices are combined with academic learning and with professional training in reality, which implies integrating real training in the classrooms and that this practical process extends further, allowing them to obtain limited and precise knowledge.

According to what was mentionedWhite Towers(2018) adds that: "formal education increasingly tends to guide the student towards the development of skills and abilities that allow them to provide effective solutions to the social, natural, cultural or work environment in which they find themselves" (p. 5). Therefore, their insertion into the labor market in a pre-professional way in an internship provides them with a certain degree of experience on the different elements that constitute the responsibility of having a position within an entity for which they receive a monthly remuneration (Camacho Wellet al., 2023).

The youth guarantee should therefore enable students to find a job that is appropriate to their training or that allows them to acquire education, skills and experiences that are directly relevant to increasing their chances of finding a job in the future (Rueda-RodriguezVocational training has its own meaning and logic and it is about incorporating it as part of the educational system, not separating it from the reality that the student presents as learning and in that sense, the teacher must prepare and direct the process in that direction, preparing young people for the world of work, to practice a profession outside the educational system (Barrientos-Gutierrez, 2018).

At a global level, the management of pre-professional internships is a relevant problem in various educational institutions, especially those that require practical and applied training. The development of students' activities during their internships is usually very difficult for them, since they lack practical knowledge in the execution of these (Rodriguez-Diazet al., 2022).

In Latin America, the difficulties in acquiring knowledge in these scientific disciplines are highlighted. This is due to various obstacles, such as the lack of resources to carry out experimental educational practices, the presence of large student groups, the persistent application of traditional approaches by teachers in the classrooms, the lack of updating and training of teachers in the planning and execution of practical activities. These factors contribute to young people lacking a minimum base of knowledge related to real situations, which results in the absence of fundamental skills (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2021).

Educational institutions in Ecuador, in the south, and particularly in the province of Manabí, have not promoted guides, manuals or other types of research on the development, monitoring and follow-up of pre-professional practices of high school students, due to the low allocation of activities in the companies where they carry out their internships (Narvaez-Vilemaet al., 2024).

In the National Education System (SEN) it is established in an obligatory manner that high school students have to carry out their internships or pre-professional practices, therefore the educational institution in which they are studying must establish agreements with companies and entities of the public sector so that their students have for one month (30 days) the opportunity to be within their facilities to carry out tasks that allow them to put into practice the knowledge acquired in the classrooms and in turn, get to know the environment of the labor market in order to have a better orientation for choosing their professional career that they will follow in the next educational level (Guarnizo, 2018).

Taking into account that through internships or pre-professional practices, students have the opportunity to be within a public or private entity in order to obtain a practical experience that supports the knowledge acquired in the classroom; however, they do not have the practical skills or abilities necessary to develop the assigned functions.

At the Dr. Odilón Gómez Andrade Educational Unit, third-year agricultural technical high school students carry out their practical training; however, it was observed that they have little participation in the realization of activities due to deficiencies in theoretical knowledge, lack of experimental skills, such as: project-based learning, interdisciplinary work, field work, research, among others. In this way, consequences arise for learning and the development of practical skills, making it necessary to reinforce the accompaniment on the part of technical teachers, looking for companies or institutions that offer learning opportunities in pre-professional internships.

According to the above, it is evident that a variety of experimental methods must be applied so that the training process is fully completed, therefore, redesigning the study curriculum internally is important so that the student has more access to time in pre-professional practical training.

The scarce application of experimental methods, especially in the pre-professional stage, reveals an important gap in the training of technical high school students. With the need to strengthen their technical, practical and problem-solving skills, the question arises: How do deficiencies in the application of experimental methods affect the pre-professional performance of third-year technical-professional high school students at the Dr. Odilón Gómez Educational Unit? In order to address this problem,To develop a proposal for innovative experimental methodologies that optimize the pre-professional practices of students, thus promoting their comprehensive development in the

educational, labor and social context at the "Dr. Odilón Gómez Andrade" Educational Unit.

Methodology

In order to carry out a diagnosis to analyze how experimental methods help in the development of pre-professional practices in third-year technical high school students of the UE Dr. Odilón Gómez Andrade of the Canton Chone; a review of the literature on the topic of research was carried out.

Guevara et al. (2020) states that descriptive research aims to specify some fundamental characteristics of homogeneous sets of phenomena by providing systematic information comparable with that from other sources; the present study was based on descriptive research because the aspects that detail the reality of the development of pre-professional practices in third-year students of the agricultural technical high school of the educational institution were considered.

In order to analyze how experimental methods enhance the development of pre-professional practices, the present study started from a quantitative approach because a survey will be applied to the group of teachers and an observation form to the third year high school students, whose results were tabulated statistically. Based on the above, the postulate ofSanchez-Flores(2019) who indicates that the quantitative approach uses data collection to test hypotheses based on numerical measurement and statistical analysis to establish behavioral patterns to be guided by the context, the situation, the resources available, its objectives and the problem of study.

The methods used were field methods, which were used through direct observation at the educational institution where the research was taking place; likewise, the inductive method was used because from the conclusions obtained in the study, the problem of the deficiencies of experimental methods in pre-professional practices will be generalized to understand its dimension, and deductive methods because from the information existing in other research that served as scientific and theoretical support, characteristics of third-year technical high school students were found under the analysis of the use of experimental methods at the Dr. Odilón Gómez Andrade University.

The analytical method was also used, because with the problem raised and with the identification of the variables such as experimental methods and pre-professional practices, information was collected for the respective analysis with the use of statistical and graphical tools.

Observation and survey techniques were taken into account. The first was used to collect direct information from the group of third-year high school students to investigate the level of complexity and the type of activities that students carry out in pre-professional

practices. The second was directed at the teaching staff to identify experimental methods that allow the development of pre-professional practices to be enhanced. In general, the results established the main regularities regarding the current status of the group of students and teachers based on the topic addressed by the research.

The main data collection tools used were a 10-item observation guide for third-year high school students and a 10-question questionnaire for teachers. Both instruments were designed based on the specific objectives and the literature review.

The population was represented by 196 high school students, 43 teachers from the Dr. Odilón Gómez Andrade Educational Unit of the Chone Canton. The sample selected was 65 third-year high school students who are doing pre-professional internships this school year and 16 teachers who teach high school classes. The sampling applied was non-probabilistic for convenience.

Results

After collecting data from the research participants, the instruments used served as a means to evaluate the variables. Through observations of third-year agricultural high school students, which consisted of investigating the level of difficulty in the activities they carry out in pre-professional practices.

Table 1

Level of difficulty in the activities developed in pre-professional practices

Indicators	Scale					
	Always		Sometimes		Never	
	F	%	F	%	F	%
They assign him activities of greater responsibility.	15	23.07	12	18.46	38	58.46
Correctly perform the designated activities.	29	44.61	21	32.30	15	23.07
He spends a lot of time doing activities.	40	61.53	15	23.07	10	15.38
Perform several tasks at the same time.	26	40	21	32.30	18	27.69
The level of complexity of the tasks is appropriate to your age and experience.	13	20	21	32.30	31	47.69
They take work home by not completing their tasks during the workday.	10	15.38	15	23.07	39	60
They receive guidance from their managers.	32	49.23	28	43.07	5	7.69
They actively develop the exercise of their profession in the field of practice.	0	0	26	40	39	60

They perform administrative work.	40	61.53	15	23.07	10	15.38
At the end of their working day, their work is supervised and evaluated by the authorities.	7	10.76	38	58.46	19	29.23

Note: Third year agricultural high school students.

Analysis of data obtained from observation of third-year high school students revealed the following: 58.46% do not delegate highly responsible tasks, 44.61% effectively execute assigned activities, and 61.53% spend excessive time completing tasks.

The results show that a significant proportion of students (40%) perform multiple tasks simultaneously. There is also a discrepancy between the complexity of tasks and the students' abilities (47.69%), which translates into a workload that extends outside of working hours (60%).

Based on the seventh indicator: They receive guidance from their supervisors, 49.23% of students are trained by the staff working at the institution, regarding the eighth indicator: They actively develop the exercise of their profession in the field of practice, 60% of students do not carry out activities in accordance with their professional vision, with regard to the ninth indicator: They carry out administrative work, 61.53% of the students carry out administrative activities all the time and finally, the tenth indicator: At the end of their work day, the work is supervised and evaluated by the authorities, 58.46% of students are sometimes supervised and evaluated for the activities they carry out during the work day.

The results were also obtained in relation to the objective of the survey applied to agricultural high school teachers, which consisted ofidentify experimental methods that enhance the development of pre-professional practices.

Table 2

Type of experimental method

Item	Alternative	F	%
to	Field experimentation.	2	18.50
b	Free experimentation.	10	62.50
c	Experimentation Project-based learning.	3	18.75
d	Cooperative learning experimentation.	1	6.25
	Total	16	100

Note: Agricultural high school teachers

As illustrated in Table 2,Most participants indicate that62.50% of agricultural high school teachers chose theoptionFree experimentation. This experimental method allowed students the freedom to explore and experiment with materials, tools, and concepts

without specific guidelines. However, it was observed that students, without the guidance of their teachers, used their time poorly.

Table 3

Difficulties in applying the experimental method

Item	Alternative	F	%
to	The short working time.	4	25
b	Lack of confidence in students.	8	50
c	The scarce tools or supplies.	1	6.25
d	Lack of experience.	3	18.75
and	The constant pressure to which they are subjected.	0	0
F	The bad work environment.	0	0
	Total	16	100

Note: Agricultural high school teachers.

According to the analysis in Table 3, 50% of teachers chose the option "Lack of trust in students". The lack of trust could have arisen from previous experiences where students have not met expectations, did not follow established rules due to lack of interest and commitment.

Table 4

Features of theexperimental method

Item	Alternative	F	%
to	It is flexible and adaptable to any context.	9	56.25
b	Stimulates critical and interpretive analysis.	1	6.25
c	It can be applied to various areas of study.	4	25
d	Promotes cooperative work.	0	0
and	It promotes initiative and practical agility.	1	6.25
F	Relates and links theory with practice.	1	6.25
	Total	16	100

Note: Agricultural high school teachers.

According to the analysis in Table 4, the56.25% of teachers chose the option "It is flexible and adaptable to any context." Teachers stated that the characteristic that the experimental method must have for its application in pre-professional practices is to be flexible and adaptable to any context.

Discussion

The results obtained in the diagnosis were of great investigative importance since they provided a broad vision of the deficiencies that students have in pre-professional practices due to a deficit of experimental methods.

According to the execution of the designated activities, 44.61% of the students carry out their tasks efficiently; Therefore, these data differ from the study carried out by Alarcón et al. (2022), who stated during the process of their research observation that the majority of the students who were carrying out the pre-professional practices demonstrated responsibility and compliance with the conviction of finishing and setting a good precedent of their contribution and collaboration to the institution, but in terms of quality and error-free work, 45% of them presented various failures in the tasks assigned specifically in administrative work.

Regarding the level of complexity of the tasks, the research carried out by Romero & Moreira (2018), who stated that the study showed that the activities linked to pre-professional practices need to be systematically rethought, with the aim of tempering the requirements of the work with the interests of the teaching-learning process. These are established as a responsibility in the change of the educational system that constitutes a learning tool in the teacher's work and a commitment of the students, in addition to contributing to the training of the student, allowing them to acquire experience in the work field, develop professional criteria and decision-making. These results are related to the current research since 47.69% of the students develop activities that are not in accordance with their capacity.

In the research carried out by Guarnizo (2018), who states that generally the authorities of companies and public or private institutions assign administrative activities to students who carry out their pre-professional internships, therefore, they are specific tasks according to the degree of experience they have, and also based on their regulations they do not contemplate assigning functions of a high degree of responsibility. These data are related to the present study taking into account that 61.53% of students carry out administrative activities all the time.

Likewise, based on the type of experimental method, the study carried out by Flores et al. (2022) is mentioned, who states that generally in all educational fields it is recommended to apply the free method since it is directed towards constant action and the demonstration of what has been learned during a certain time, for its use one must be prepared or correctly trained, understanding that what has been learned is put into practice at the scene; Therefore, these data are related to those of the present investigation, since 81.25% of teachers consider that the type of experimental method that enhances the development of pre-professional practices is free experimentation.

Although Castro et al. (2023) point to the lack of adequate environments and little experience as the main obstacles to the application of the experimental method in pre-professional practices, the results of this study reveal a different perception among teachers. 50% of them consider that the main limitation is the lack of institutional trust in students.

Finally, regarding the characteristics of the experimental method, the study carried out by Oseda et al. (2020) is brought up, who indicate that the experimental method applied in the educational field can present many advantages, especially depending on its use by students and following the guidance of teachers, although for it to be applied naturally, its adaptation to the different environments and the different conditions where the experimental practice will be developed must be taken into account; These data differ from those of the present research considering that 56.25% of the teachers stated that the characteristics that must be had in the experimental method for its application in pre-professional practices is to be flexible and adaptable to any context.

Proposal

The proposal to use experimental methods in dual education, prior to the development of pre-professional practices, aims to optimize the quality of the educational and professional experience of students. These methods allow the application of theoretical knowledge in real or simulated projects, thus addressing the deficiencies in guidance and supervision detected in current practices. They facilitate the alignment of tasks with professional interests and goals, fostering greater commitment and the development of critical skills, problem solving and professional competencies.

The program is structured around the selection of real-life projects that align with students' educational objectives and professional goals. Apprentices receive a design that is tailored to their areas of interest, allowing them to apply their knowledge in a real-world context. To ensure the success of the process, a tutor or mentor with relevant experience in the area of study is assigned, who provides ongoing guidance, periodic reviews, and constructive feedback.

Table 5

Proposal for use with experimental methods

Session	Aim	Development	Materials and resources
1	Promote the practical application of theoretical knowledge.	Select a real project related to your area of study. E.g. creating vegetable gardens, composting, water analysis for crops.	Orientation guides, research materials.
2	Develop research and problem-solving skills.	Exhaustive research on a project, indicating variables, posing hypotheses and designing a work plan.	Texts, internet access, laboratory materials.
3	Promote collaborative work and effective communication.	Practical demonstration in teams to develop their projects, learning to communicate, delegate tasks and resolve conflicts.	Collaborative workspaces.

4	Promote critical thinking and creativity.	Evaluation based on the originality of their proposals, analytical capacity and problem solving.	Spaces for experimentation.
5	Develop presentation skills.	Presentation of the projects orally and in writing, demonstrating their skills.	Presentation materials.

With the implementation of the proposal, students' performance is strengthened by motivation and commitment to link theory with practice in real projects. They will also develop key skills such as research, problem solving and teamwork, preparing them for the world of work. The adaptability and personalization of the proposed activities were based on progress, the quality of the final work and the process under the use of clear rubrics that allow measuring the criteria of success obtained.

Conclusions

- When developing a proposal for innovative methodologies, students' pre-professional practices were optimized, which promoted comprehensive development in the educational context, and also positively changed students' perception of these activities.
- The development of a proposal with experimental methodologies in the third year of high school at the "Dr. Odilón Gómez Andrade" Educational Unit has led to a significant change in learning practices. By incorporating new work techniques, it has been possible to stimulate autonomous research, deep understanding of concepts and empirical verification of knowledge acquired through practical activities.
- The use of experimental methods reflected a lack of access to the materials, equipment and resources necessary for experimentation, as well as a lack of motivation to learn something new, fear of failure or frustration if they did not understand the procedures.

Conflicts of interest

The authors declare that they have no conflict of interest in the submitted article.

Bibliographic References

Alarcón Quinatoa, G.J., Borja Borja, C.G., García del Pozo, A. M., & Fierro Barragán, S.E. (2022). Pre-professional internships in the context of the business administration degree, face-to-face modality at the State University of Bolívar. Pro Sciences: Journal of Production, Sciences and Research, 6(43), 37-44.https://journalprosciences.com/index.php/ps/article/download/517/567/1431

Fontanilla Lucena, N., & Mercado Durán, Z. (2021). Procedural research competencies promoted by university teachers in their teaching action. Educare, 25(81), 567-577.https://www.redalyc.org/journal/356/35666225018/35666225018.pdf

Barrientos-Gutiérrez, P, (2018). Educational model and challenges in teacher training. Horizonte de la Ciencia, 8(15), 175-191.https://www.redalyc.org/journal/5709/570960688014/html/

Blancas-Torres, E.K. (2018). Education and social development. Horizonte de la Ciencia, 8(14), 113-121.https://www.redalyc.org/journal/5709/570960866008/html/

Botella Nicolás, AM, & Ramos Ramos, P. (2019). Action research and project-based learning. A bibliographic review. Educational Profiles, 41(163), 127-141.http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-26982019000100127&lng=es&tlng=es.

Castro Maldonado, JJ, Gómez Macho, LK & Camargo Casallas, E. (2023). Applied research and experimental development in strengthening the skills of 21st century society. Tecnura, 27(75), 140-174.http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-921X2023000100140

Flores Hinostroza, EM, López González, WO & Mendoza Velazco, DJ (2022). Pre-professional practices of experimental sciences developed in Ecuadorian virtual education. Educere: Venezuelan Journal of Education, 84(5), 575-594.https://dialnet.unirioja.es/servlet/articulo?codigo=8558697

Guarnizo Crespo, SF (2018). Importance of pre-professional internships for higher education students at the University of Guayaquil. INNOVA Research Journal, 3(8), 14-25.https://revistas.uide.edu.ec/index.php/innova/article/view/717/1123

Guevara Alban, GP, Verdesoto Arguello, AE, & Castro Molina, NE (2020). Educational research methodology (descriptive, experimental, participatory, and action research). Recimundo, 3(5), 163–173.https://recimundo.com/index.php/es/article/view/860

Narváez-Vilema, CA, Cadena-Figueroa, MN, Lara-Velarde, AC & Fierro-López, D. V, (2024). Pre-professional practices in teacher training in foreign languages: a critical approach from the testimonies of teachers in training. Chakiñan, Journal of Social Sciences and Humanities, 22(4), 100-112.https://chakinan.unach.edu.ec/index.php/chakinan/article/view/1014

Oseda Gago, D., Mendivel Geronimo, RK, & Angoma Astucuri, M. (2020). Teaching strategies for the development of competencies and complex thinking in university students. Sophia, Collection of Philosophy of Education, 4(29), 235-259.http://scielo.senescyt.gob.ec/scielo.php?script=sci_arttext&pid=S1390-86262020000200235

United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2021). UN Secretary-General warns of looming educational catastrophe.https://es.unesco.org/news/secretario-generalnaciones-unidasadvierte-que-se-avecina-catastrofe-educacion-y-cita

Pozo-Camacho, MJ, Esteves-Fajardo, ZI & Baque-Pibaque, LM (2023). The development of skills and abilities in educational research. Episteme Koinonía. Electronic Journal of Education Sciences, Humanities, Arts and Fine Arts, 6(11), 109-120.http://ve.scielo.org/scielo.php?script=sci_arttext&pid=S2665-02822023000100109

Rodríguez-Díaz, JL, Cabrera-Olvera, JL & Muñoz-Guanga, AP (2022). The success of pre-professional internships: What does it depend on? Havana Journal of Medical Sciences, 21(2).http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1729-519X2022000200015&lng=es&tlng=es

Romero Chávez, S.A. & Moreira Chica, T.K. (2018). Pre-professional practice: a first approach to the labor field. Journal of Contributions to the Social Sciences, 6(10), 12-13.https://www.eumed.net/rev/cccss/2018/07/practica-preprofesional.html

Rueda-Rodríguez, A. E, (2019). Professional practices and internships from a comparative perspective. Latin American Journal of Social Law, 2014(19), 111-132.https://www.elsevier.es/es-revista-revista-latinoamericana-derecho-social-89-articulo-las-practicas-profesionales-pasantias- desde-S1870467014706669

Sánchez-Flores, FA (2019). Epistemic foundations of qualitative and quantitative research: consensus and dissent. Digital Journal of Research in University Teaching, 13(1), 102-122.http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S2223-25162019000100008

Conciencia Digital

ISSN: 2600-5859
Vol. 7 No. 3.2, pp. 53 – 68, September 2024

www.concienciadigital.org