

Initial Teacher Training At The Popular University Of Cesar

Jesús Alberto Ortiz Ramírez¹, Elkin José García Gómez², Carmen Elena Amaya Pabón³, Wilfrido De Jesús González Franco⁴, Sandra Emilia Molina Montero⁵, Josimar Darío Roa Marriaga⁶

Universidad Popular del Cesar, Valledupar, Colombia, jesusaortiz@unicesar.edu.co

²Universidad Popular del Cesar, Valledupar, Colombia, elkinjgarcia@unicesar.edu.co

³Universidad Popular del Cesar, Valledupar, Colombia, carmenamayap@unicesar.edu.co

⁴Universidad Popular del Cesar, Valledupar, Colombia, wilfridogonzalez@unicesar.edu.co

⁵Universidad Popular del Cesar, Valledupar, Colombia, sandramolina@unicesar.edu.co

⁶Universidad Popular del Cesar, Valledupar, Colombia, jdtoa@unicesar.edu.co

Summary:

This article is the product of a research that aimed to evaluate the pedagogical, organizational and contextual dimensions of Initial Teacher Training at the UPC, in order to propose an improvement plan aimed at educational quality and the professional development of future teachers. It determined that the contextualization of the space where the training is developed, aligned with the Bachelor's degree programs and the theoretical framework, links initial teacher training with previous related programs in Colombia. The research, with a quantitative approach and cross-sectional application, validates the evaluation through a significant sample of students. The data are captured using three instruments—surveys, tests, and rubrics—and contrasted with a model of initial training for teachers in basic and secondary education.

Keywords: *Initial teacher training, contexts, pedagogy, didactics, disciplinary knowledge.*

1. INTRODUCTION

Initial teacher training is a fundamental element for the achievement of higher levels of quality of education, since the quality of education systems is largely determined by the quality of their teachers. In the process of achieving a better training of Colombian teachers, in order to improve school education and their future practice at work, the Popular University of Cesar offers initial training programs for teaching careers such as: Bachelor's Degree in Mathematics, Bachelor's Degree in Natural Sciences and Environmental Education, Bachelor's Degree in Spanish and English Language, and a Bachelor's Degree in Art and Folklore, among others.

Given the importance of teacher training careers, in order to improve initial training to have a positive impact on the performance of future teachers, it has been considered pertinent to focus attention on the evaluation of four programs for initial teacher training. The comparison between programs will allow us to examine the opinions of students, their performance in the training process, and the impact on performance in teaching practice.

2. Context of the Research

Teacher training can be approached at different levels. From an institutional point of view, the vision of the Popular University of Cesar is oriented towards the Caribbean region and the training of teachers who, beyond a disciplinary specialization, adhere to a socio-critical approach. In Colombia, initial teacher training is based on several theoretical models, including the models or standards described in the resolutions that regulate higher education. According to Rivera (2015), a distinction is made between the exclusively professional training implicit in the resolutions, the regional training proposed by Bernal (2022) and an educational model indicating the qualities necessary to perform as a teacher. The present analysis is situated at the latter level.

As for the social level involved, all the licensing programs attend to different realities of the country, and the institutional proposal contains a deep socio-critical charge. Regarding the level of focus, the research is oriented towards the professional life of the students and their academic situation. The assessment of the initial teacher training of graduates in Mathematics, Natural Sciences, Spanish

Language and English, and Art and Folklore of the Popular University of Cesar is linked to the contributions made by Roldan (2021) on the impact of curriculum design during the training process, as well as to the different predominant models in Colombia. The concept of initial training is also noted in the theoretical framework of the research.

3. THEORETICAL FRAMEWORK

Within the context of initial teacher training at the Popular University of Cesar, it was possible to establish a theoretical framework that allowed understanding the role of initial teacher training and its impact on the practice of educational work. In addition, the components related to the analysis and evaluation of the Bachelor's degree programs were developed, based on the Bachelor's Degrees offered at the Popular University of Cesar. The set of theories adopted describes Ruta García, who defines initial teacher training as the process that prepares the educator in the knowledge, skills and values required to practice in the school environment, and Lastra, who defines initial training as the period of preparation for teaching necessary to balance professional capacities and psychosocial characteristics. Finally, four basic models of teacher training are presented: training, academic-research, socio-political-cultural and technological.

In this same context, Torres (2023) highlights that there are no specific pedagogical models in Colombia, assigning novice teachers multiple functions within the education system. For his part, Franco emphasizes the characteristics of the Colombian model of initial training, insisting that the teaching exercise can begin in conditions of epistemological coherence when the profession is approached from philosophy, history, pedagogy and research. The latter approaches were considered for the corresponding analysis.

3.1. Key Concepts in Teacher Training

According to Cobo et al., (2021) "initial teacher training, mainly in higher education, is an essential requirement to achieve the training of students considered adequate". In this sense, initial training would constitute "professional access through the acquisition of the essential set of knowledge, skills, aptitudes, competencies and attitudes that define the teacher" (Raseto, 2024). The models of initial training presented throughout this work correspond to the province of Córdoba (Argentina), although the results of the Universidad Popular del Cesar (Colombia) shed light on an analysis from early education to higher education in the latter nation.

3.2. Initial Training Models

The initial training models constitute the first level in the sequence of the teacher training process and, in turn, generate the other aspects of the training set. In the work of Zambrano and Domich, the development of the initial teacher training offered by the Popular University of Cesar is described from the perspective of those who are in the process of being trained by teachers in preschool, basic and secondary education and, on the other hand, comparisons are established with other processes at the national level. The search for information that allowed validating the evaluation carried out is based on the analysis of what has been proposed by different authors and academics of the institution, who describe models of initial training in our country.

Considering initial training as the most complex level of the teacher training system and the one of greatest importance for society as a whole, it is pertinent to begin the study from this point. Vargas (2023) emphasizes that initial training is the teaching-learning process through which a person obtains specialized training to develop a profession. These concepts offer an alternative analysis by determining the level of integration of the curricular model and its representation through the training processes.

4. METHODOLOGY

The study uses a research design for the validation of the initial training process at the Universidad Popular del Cesar (Colombia). The population is made up of students of the following degrees: Mathematics, Natural Sciences and Environmental Education, Spanish Language and English, and Art and Folklore. Four instruments are used to collect the information to inquire about the

perception of training, academic performance, performance in practical activity and the impact of training.

In Colombia, initial teacher training responds to different training needs, including the guarantee of the necessary skills to carry out the profession of educators at all levels. To fulfill this function, the initial training of teachers establishes mechanisms and actions that seek the comprehensive training of these professionals. Education students, validated from initial teacher training, aim to develop ideas, suggestions and experiences that strengthen their academic level. In this sense, initial training is a process developed in bachelor's degree programs in education.

4.1. Research Design

The design adopted for the research is that of a study that validates the self-applied and hetero-evaluated evaluation of initial training in the undergraduate programs of the Popular University of Cesar: Mathematics, Natural Sciences and Environmental Education, Spanish Language and English, and Art and Folklore. This assessment made it possible to determine how it affects or can affect the development of the academic processes of future teachers. The population was made up of active students of the aforementioned programs.

The validation of the design was carried out with the results obtained from the perception of the future teachers who are attending initial training. A questionnaire was applied to the participants, along with an analysis based on the data on academic performance and the impact of the training process on the teaching activity in general.

4.2. Participants

Students of the Popular University of Cesar from the Bachelor's Degree programs in Mathematics, Natural Sciences and Environmental Education, Spanish Language and English, Art and Folklore. They made up the group whose perception of their initial training will be analyzed and whose results offer valuable insight. This study ponders the role of initial training in the development of more effective and valued teaching. Every teacher carries out his or her first experiences to build a pedagogical identity, based on knowledge and values reflected in his or her practice. However, how to do this is subject to various interpretations that form models of teacher training.

4.3. Data Collection Instruments

The present research is circumscribed in the area of teacher training, taking as a starting point the programs offered by the Popular University of Cesar in basic teacher training, specifically the four degrees encompassed: Mathematics, Natural Sciences, Spanish Language and English, and Art and Folklore, in which needs are formulated by the environment, which are satisfied by each of these programs that train teaching professionals and that, in turn, train future children, adolescents, young people and adults.

The evaluation is carried out with the purpose of validating the approach towards a comprehensive, updated and functional evaluation, which allows detecting the relevant aspects within the initial training process and, consequently, strengthens, normalizes or transforms the teacher training process, especially in the area of basic training.

5. Analysis of Bachelor's Degree Programs

In Colombia there are two levels of teacher training: initial training and continuing education. The purpose of initial training is to prepare them to effectively fulfill the teaching function; it allows educators to receive the levels of deepening or development that make it possible for them to be permanently updated and orient them towards pedagogical practice adapted to the levels and cycles of teaching. The study examines the particularities and characteristics of the initial training process in Colombia through research with a qualitative approach and descriptive analysis. It analyzes four initial training programs for teachers of Basic, Middle, and Diversified Secondary Education of the Popular University of Cesar (UPC): Bachelor's Degrees in Mathematics, Natural Sciences and Environmental Education, Spanish Language and English, and Art and Folklore.

The research validates the levels of initial teacher training in relation to the skills developed during the pedagogical processes. It is interested in the development of conditions suitable for situational

training and the integral development of the student at the initial level. The general objective is to analyze the characteristics and particularities of initial teacher training. The results show the opinions and perceptions that future teachers have about their training process, evidencing an approach to academic performance and the impact that training can have on teaching work. Continuing education should be oriented towards pedagogical practice adapted to the levels and cycles of education, as reflected in the experiences taken during initial teacher training.

5.1. Bachelor's Degree in Mathematics

In the case of the Bachelor's Degree in Mathematics, a look at the initial training conceived for secondary education (secondary and diversified) is offered. Farfan et al., (2022) revealed the analysis of this academic trajectory proposed by Gracia Carmona and Giraldo: Mathematical training is not a piece of data for teaching, but an artifact to be built dialectically with the task of teaching, that is, mathematical training and the task of teaching are braided, intertwined as a single activity that allows each teacher to situate and position themselves in the work they develop. From this perspective, it could be said that the initial training of a mathematics teacher does not consist of learning to master or know certain mathematics specific to the teaching work, but rather involves placing oneself before an object of knowledge specific to the school culture. This object, as well as the model of relationship that is built with it, appears as a function of the type of relationship that teachers must establish with other actors in school activity, particularly their students

As researchers at the Popular University of Cesar, the focus is on aspects of initial training that ensure the quality of the educator's constitution process, which is built from the analysis of the development of the pedagogical component of the curriculum of the Bachelor's Degree in Mathematics. This analysis allows validating the perception that students have in relation to the accompaniment for the task of teaching, an exercise that aims to contribute to the improvement of the teaching function in Colombia.

5.2. Bachelor's Degree in Natural Sciences and Environmental Education

The changes that teachers have undergone in their practice have not only occurred in the process of delivering knowledge but also in the dynamics from which the same knowledge close to the student is built; There are also changes in their perception of the student and society, since their training should have included the management of issues such as interculturality, human rights, teamwork, pedagogical work, the planning of their work, the means and resources and the understanding of controversial issues in a variable society, giving as a common characteristic that in the process it remains in constant change. acquiring new knowledge and generating a constant reflection on each circumstance that arises related to the issue of teacher training as a process subject to change and never finished. Analyzing the teaching situation in Colombia and its importance in the educational process, it is necessary to study their initial training and determine if it has guided the development of practice to achieve a good exercise that is reflected in the performance of the learner.

5.3. Bachelor's Degree in Spanish Language and English

The Bachelor's Degree in Spanish Language and English, attached to the Faculty of Education of the Popular University of Cesar, aims to train competent professionals to work as teachers in the areas of Spanish Language and English, at the preschool, elementary and middle school levels. The detailed description of its curriculum made up of three cycles (propaedeutic, technical and professional) is presented in order to highlight the axes of general, disciplinary and professional training, and the specificities associated with the two languages.

Subjects related to the community, development and Colombian, Latin American and universal culture make up the general training. From the linguistic and literary perspective, disciplinary training involves the development of competencies that allow the future graduate to objectively know the structures and characteristics, in the different periods of development, of both Spanish and English. Finally, vocational training aims to enable the future graduate to plan, organize various activities, direct and evaluate the learning process in didactic terms for the teaching-learning of Spanish Language and English Language. In this way, the result of this process will be the training of professionals committed to teaching and students of these levels.

5.4. Bachelor's Degree in Art and Folklore

The Bachelor's Degree in Art and Folklore is part of the Faculty of Fine Arts of the Popular University of Cesar; it is oriented towards the training of teachers for the arts whose professional practice is carried out in basic and secondary education, specifically in the areas of Music, Dance, Theater, Visual Arts and Folklore. It is attached to the Institute of Training and Socio-cultural Development. The curriculum combines training, creativity, self-expression, autonomy and contextualization, while at the same time allowing it to be in tune with the levels of development of the student's artistic and creative faculties. Both the arts, in general, and the careers that lead to their teaching are oriented towards achieving a high level of development or quality; therefore, the training process is developed through the realization of research projects and the management of effective educational activities to prepare the student with a theoretical-practical basis.

6. RESULTS

The results obtained provide evidence on the initial training of teachers in the Bachelor's Degree programs in Mathematics, Natural Sciences, Spanish Language and English, and Art and Folklore of the Popular University of Cesar. Indicators related to this training are validated, using students from the five bachelor's degrees as subjects of analysis. The influence of school trajectory, performance during training and monitoring of teaching practice is analyzed, in the light of the concept of initial training of teachers. The data show that a difficult school trajectory has a negative impact on the training process and that the low development of pedagogical practice in real scenarios affects students' performance and learning processes. Therefore, it is imperative to provide greater guarantees for the satisfactory completion of the school and higher levels by students, as well as to have the permanent and effective accompaniment of teachers during these stages.

The need to train teachers capable of contributing to social development and transformation has guided various studies and pedagogical proposals. Today's society demands teachers who enable educational changes, model more equitable human relations and promote societies with greater justice and equality. In this sense, the findings on initial teacher training at the Popular University of Cesar corroborate and broaden the understanding of the conditions and factors that affect such training.

6.1. Perceptions of Students

Within the framework of the initial training of teachers at the Popular University of Cesar (UPC), Colombia, a system was established that covers the undergraduate cycles in Mathematics, Natural Sciences, Spanish Language and English and in Art and Folklore, which are immediately concentrated in an evaluation process whose objective is to determine whether the initial training of secondary education teachers influences any of these aspects: perception, academic performance and educational work. To validate the evaluation, a research was designed in which a representative number of students participated and, to obtain the information, a survey was applied. The results show an impact on perceptions, which were considered as fundamental data for the research.

The initial training of teachers acquires great importance within the educational system, since these professionals are responsible for promoting the intellectual development of the inhabitants of a country and, in this way, they will promote significant advances within all fields of knowledge. In Colombia, there are various training models to strengthen each of the initial stages in the area of teaching, as indicated by research associated with the UPC, which has addressed Bachelor's Degree programs in Mathematics, Natural Sciences, Spanish Language and English and in Art and Folklore.

6.2. Academic Performance

Different views on initial teacher training can affect students' academic performance. The initial training that future teachers receive determines both the type of activities in which they will be involved during teaching and the realization of their life project. The analysis is based on the premise that academic performance is influenced by the formative perspective adopted.

To validate this proposition, a research was carried out that involved students of the bachelor's degrees in Mathematics, Natural Sciences and Environmental Education, Spanish Language and

English, and Education in Art and Musical Folklore, proposed by the Popular University of Cesar. The study used instruments designed to reveal the characteristics of the training received, in particular the incidence of the views that students have on said training, in order to characterize and establish a relationship with their performance.

6.3. Impact on Teaching Practice

An interpretation of the impact that the different models of initial training for teachers have on educational practices is presented, based on the information obtained during the analytical stage for the validation of the evaluation of the Bachelor's Degree in Mathematics, Natural Sciences, Spanish Language and English and the Master's Degree in Education with an emphasis on Teacher Training, of the Popular University of Cesar. The descriptive analysis is oriented towards the perceptions of undergraduate students, academic performance and the effect observed in teaching practice.

Initial teacher training is conceived as a process aimed at increasing and improving both the contingent capacities that favor immediate educational practice, as well as the structural capacities for the long-term exercise of the profession. In accordance with these characteristics, initial training is divided into two main types: contingent training aimed at the immediate fulfilment of external requirements and structural training aimed at permanent change in professional practice. Recognizing that both operations have a strong relationship, the models of initial training that currently dominate in Colombia are examined.

7. DISCUSSION

The results of the contextual analysis of the initial teacher training process at the Popular University of Cesar led to an evaluation that sought to validate the perception of students and professionals about the impact of the training received. The initial analysis of perception was designed to verify its correspondence with levels of academic performance and its influence on teaching practice. Given the boom in research aimed at describing models of teacher training, it is valid to contrast different modes and intensities in such training according to the proposals for Colombian colleagues.

Initial training is defined as the first structured and systematic stage in the process of preparing future teachers. It comprises the set of experiences that guarantee sufficient learning to perform in the field of teaching, an essential cultural and social activity. The term refers to that educational space and time with organized models to confer minimum elements that ensure one's own practice and the construction of knowledge at various levels. The approach applied to initial training is a condition for the development and construction of the process.

7.1. Comparison with Other Training Models

Initial teacher training has been an area of permanent interest both in Colombia and in the context offered by the Popular University of Cesar. Studies have been carried out to analyze elements of the initial training process of primary and secondary education teachers, evidencing socio-educational patterns that have an impact on higher education in Colombia. In particular, models and conditions in both public and private administration have been explored, along with students' perception of this process. Interest has also been oriented towards initial training as a profiling of teachers for school education and the teachers' perception of training procedures.

A wide range of research has also considered aspects such as academic performance and its relationship with certain variables, linking guidance processes with the strengthening of initial training. Moreover, the impact of the economic crisis on higher education, initial training and Colombian society has been evaluated, recognizing the importance of the global context in the orientation of educational policies. Finally, attention has been paid to the profile of the teacher of basic and secondary education and to the perception of the impact of guidance on educational practice.

7.2. Challenges and Opportunities

Among the predominant models in Colombia are the functionalist and apheretic conceptions, which are confronted in multiple approaches. Recognizing such diversity, there is a demand for a systematization of the concentration of initial training, focused on specific groups such as students

and practitioners. This reflection reveals how institutional conditions affect the structuring of knowledge, both in bachelor's degrees in general and in the specific disciplines of the curriculum. These comments are pertinent to the consideration of the perception of initial training expressed by students of the Bachelor's Degree programs in Mathematics, Natural Sciences, Spanish Language, Foreign Languages-English, and Art and Folklore of the Universidad Popular del Cesar, since its development and the conditions advanced can be observed in a complementary way to other approaches carried out in Colombia.

8. Implications for Educational Practice

The results derived from the research process in the initial teacher training of the Popular University of Cesar allow us to identify various key elements that affect the characteristics, performance and results of the students, as well as the conformation of the pedagogical subject in these careers. Teaching activity is a professional practice that is manifested through the continuous interaction between the teacher and the students. Therefore, the quality of the work carried out depends not only on the permanent updating and level of knowledge of the teacher, but also on his or her way of acting with students. In fact, the educational and formative quality that students receive depends, to a large extent, on the motivation, activity and creativity that the teacher demonstrates on a daily basis in front of the group.

9. Recommendations

Based on the discussion, some aspects that affect the analysis of initial teacher training require attention and could guide modifications and innovations. An essential consideration, present from the models of moral and professional training of teachers, points to the intensity with which the different fields or areas of knowledge are developed. An adequate balance in these courses enhances the optimal development of professional skills; therefore, it is recommended to review in detail the contents, depths, scope and dynamics for each area of knowledge, pedagogical knowledge and educational practice.

Another pertinent consideration involves the alteration in the order of some subjects in specific areas. From the perspective of the pre-experience required in educational practice and the scientific foundation that must provide a deep development of the different areas gradually, it is necessary to evaluate the possibility of reorganizing the curricular sequence of the initial subjects. A particular modification should be proposed for each programme.

10. CONCLUSION

Initial teacher training is understood as a process oriented towards professionalization and training for future responsibilities in education. The Bachelor's Degree programs in Mathematics, Natural Sciences, Spanish Language and English, and Art and Folklore advise women and men in the execution of methodological proposals for the initial training of teachers. The university is interested in measuring the impacts of these programs on the success of the future teacher, which generates a baseline for this study. Therefore, initial training is evaluated with the support of students' perceptions, academic performance and effects on practice.

The initiative identifies the importance of exploring the historical, methodological and theoretical context. The contextualization of the space where the training is developed, aligned with the Bachelor's degree programs and the theoretical framework, links initial teacher training with previous related programs in Colombia. The research, with a quantitative approach and cross-sectional application, validates the evaluation through a significant sample of students. The data are captured using three instruments—surveys, tests, and rubrics—and contrasted with a model of initial training for teachers in basic and secondary education.

11. BIBLIOGRAPHIC REFERENCES.

1. Bernal, G. (2022). THEORETICAL PEDAGOGICAL MODEL FOR THE DEVELOPMENT OF EMOTIONAL COMPETENCIES IN SECONDARY SCHOOL STUDENTS SEEN FROM THEIR SOCIOCULTURAL CONTEXT. DOCTORAL THESES.
2. Cobo-Huesa, C., Abril, A. M., & Ariza, M. R. (2021). Design-based research in initial teacher education for an integrated teaching of the nature of science and critical thinking. *Eureka Journal on Science Teaching and Dissemination*, 18(3), 3801-01.
3. Farfán-Pimentel, J. F., Lizandro-Crispín, R., Rodríguez-Galán, D. B., Calderon-Chambi, M. E., & Farfán-Pimentel, M. D. E. (2022). Khan academy strategy in the learning of mathematics in basic education: a theoretical review. *Ciencia Latina Revista Científica Multidisciplinar*, 6(6), 6871-6887.
4. García, C. M. (2002). The initial and ongoing training of educators. STATE SCHOOL BOARD. *Educators in the society of the twenty-first century*. Madrid: Ministry of Education, Culture and Sport, University of Seville, 161-94.
5. Rassetto, M. J. (2024). The formation of the teaching staff of Biological Sciences.
6. Rivera Mandarache, E. Y. (2015). University professional training and teacher performance in the area of education for work in the field of local management unit No. 06, Vitarte.
7. Roldán, A. C. (2021). Curricular Evaluation: Analysis and perspectives from the media. *Curricular Evaluation: Analysis and perspectives from the media*.
8. Torres Achicanoy, G. B. (2023). The new school in rural primary education in southwestern Colombia.
9. Vargas Mendoza, I. V. Comparative analysis of the teaching competencies promoted in undergraduate and graduate studies at ECEDU-UNAD during the period between 2018-2022.
10. Zambrano, N. G., & Domich, M. A. Critical of Public Policies for Initial Teacher Training Implemented in Colombia.