

Active Pedagogy as a Tool for Innovation: Perspectives from professional development in teacher education

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Abstract—This article analyzes the organization, structure and implementation of a training course called *Approaches to active pedagogy* offered by the Department of Continuing Education at National University of Education, UNAE. It served 400 Ecuadorian teachers, who work at the elementary and high school levels. The purpose of the course was to expand and strengthen teachers' knowledge on issues related to active pedagogy as a possibility to generate processes of educational innovation through a diversity of strategies. The results obtained show a dynamization of the training processes and the satisfaction of teachers in topics that allow them to transform their teaching practices.

Keywords—active pedagogy, educational transformation, innovation, teaching practice

I. INTRODUCTION

Education constantly faces challenges that require a true revolution. The transformation that is required is expressed in the search for contents, sequences, methodologies and evaluation criteria different from those proposed in the traditional model. Rethinking requires constant reflection, analysis and evaluation on how and why to teach? [1] These questions allow contextualizing the processes based on the current realities influenced by various factors, mainly technology and students' new skills. Therefore, permanent teacher training is an emerging need to improve their pedagogical, didactic and technological skills for the new learning scenarios [2].

In this sense, the University's mission highlights professional training as an ethical commitment to transform the education system in Ecuador. Teacher training in this context prioritizes thinking and acting through scientific rigor, research and innovation considering the real needs of the territory. It intends to contribute to the construction of an intercultural, international, complex, inclusive, fair, equitable, free and democratic society [3]. For this reason, the continuous teacher training processes look for the promotion of the teaching skills development based on the principles that underpin the UNAE pedagogical model such as learning by doing; essentialize the curriculum; case study, problem and project-based learning. Continuous education bets decisively for a formative evaluation and stimulates the tutorial function of the teacher [4]. All this from the dynamics of each educational reality, in which experiences are shared to contribute from continuous training to the reflection and affirmation of the teaching-learning processes of in-service teachers who work in the different Ecuadorian schools. [5].

With this background, the teacher training course called *Approach to active pedagogy*, offered by the Department of Continuing Education at UNAE, was created. It aimed to

provide teachers with the theoretical and methodological knowledge base that enabled them to improve their teaching practice. That knowledge represents a collective construction, built from the professional interaction in the diverse training scenarios. Then, that knowledge was put into practice, revealing two basic processes for the reconstruction of their practical wisdom: theorizing the practice and experiencing the theory [6] [7].

Thus, active pedagogy is considered as a proposal that implies understanding the educational process from a point of view that overcomes the repetition of contents, typical of the traditional education. It goes further, towards the experimentation of real and experiential learning situations that respond to a new way of building knowledge, in which practical and significant learning scenarios are generated [8].

Active pedagogy seeks the development of skills and attitudes that are necessary for the change in the educational paradigm. In this sense, the students' needs prevail, their prior knowledge is valued, the construction of true learning is encouraged, situations for experimentation and practice are generated. And above all, the development of authentic learning experiences that enable students use their knowledge and abilities in their daily lives are promoted [6] [8].

The teacher training course has the purpose of promoting meaningful learning experiences for the participants. As they arrive with high expectations and motivated to reinforce their daily pedagogical practices. These spaces seek to contribute to the improvement of their teaching practice and guarantee a quality educational process.

This study aims to analyze the potential of active pedagogy in education considering classroom dynamics from an innovative and participatory perspective, in which students assume the leading role in their learning process. Therefore, it analyzes the perceptions of the course by the participating teachers from elementary and high school education.

II. METHOD

This study had an action research design, which allowed the implementation of educational interventions based on the active pedagogy to focus on specific classroom problems [9]. The research used the qualitative research approach that allowed understanding and interpreting the situations through the perceptions of the participating teachers [10].

a. Sample

The participants were 400 Ecuadorian teachers, who work at the elementary and high school levels.

The course was developed from April to June, 2019. It had a duration of 123 hours distributed in 9 weeks of work in a face-to-face and virtual modality. All face-to-face meetings were held at UNAE University.

B. Instruments

A final course satisfaction questionnaire was used in order to identify teachers' perceptions of the training received. The instrument had 36 items, of which 7 focused on the perceptions of teachers about the structure, methodology, activities, tools, use of multimedia resources, fulfillment of expectations and ideas for change in their daily practice.

III. RESULTS

A. Design and implementation of the course *Approach to active pedagogy*

The design of the course was based on the basic principles of the UNAE curricular model: relevance of the practical component in the training process, theory as a tool to understand, question and design practice, virtual space as a privileged platform for transmission, production and cooperative expression of learning content, proposals and intervention projects and the priority of social commitment [4].

B. Instructional course design

Each of the units had a theme, objectives, contents, activities, evaluation instruments and resources.

A hybrid learning model was used that made it possible to combine virtual learning with face-to-face learning.

The objective of the course was to broaden and strengthen the knowledge of teachers in topics related to active pedagogy, in such a way that they have a wide range of possibilities, in terms of didactic strategies. So, it allows them to develop innovative classes based on real experiences and situations that take into account the interests and needs of the students and contribute to developing experiential and meaningful learning.

The proposal is structured taking into account knowledge management from various learning modalities:

1. The face-to-face modality corresponds to 42 hours
2. The peer learning encounter 6 hours
3. Virtual learning divided into two modalities: autonomous learning 45 hours and group learning 18 hours.
4. Experimentation or practice 12 hours.

The modalities and hours of the meetings allowed theorizing the practice and experimenting the theory, guaranteeing the relevance of the learning with a total of 123 hours.

The course was structured into 5 work modules, of which the first and fifth were face-to-face, module 2 responds to the virtual modality and module 3 combines the two types of modalities, both face-to-face and virtual.

Module 1 called *Contextualization of dominant educational practices and introduction to active pedagogy*, had the following objectives:

- Propose spaces for dialogue around pedagogy and its object of study.

- Generate a process of reflection on the current pedagogical practices of the participating teachers, applied in the classroom.

This module had the purpose of having a deep understanding of the prevailing practices in the classroom of the participating teachers, which served as a starting point to introduce the topic of Active Pedagogy.

Module 2: "Historical approach to active pedagogy and pedagogical models" had the following objectives:

- Generate a conceptual thought about active pedagogy through its historical approach.

- Establish a temporal-spatial vision of the historical development of pedagogy until the conception of the new school.

- Characterize the pedagogical models they practice or develop in their classrooms.

- Generate in the participating teacher, situations of reaction and analysis against the possibilities of innovation offered by Active Pedagogy in the teaching-learning processes.

In this virtual interaction space, the aim was to strengthen the knowledge covered in module 1 and broaden the perspective of teachers regarding the historical evolution of active pedagogy and its main precursors, in addition to the pedagogical models taking as reference what Julián de Zubiría Samper proposed.

Module 3 "Active methodological strategies, practical application" had the following objectives:

- Rethinking the teacher's methodology to give the student a leading role in their learning process, which eliminates memorization and transmission of knowledge, based on methods that respond to the needs from real learning contexts.

- Reflect on the procedure for the application of active strategies within the educational process, its scope and limitations.

- Design class sessions incorporating active teaching strategies, from the prior selection of those that fit the needs and interests of students.

- Execute the lessons plans in real situations to generate spaces for reflection on its applicability.

The module constitutes the core part of the training program that addresses 8 active teaching strategies that aim to energize the teaching-learning process and give the student a leading role.

For this space, three audiovisual resources were created with the support of UNAE teachers, experts in topics related to: Lesson Study, Curricular integration of active methodologies and Concrete experience in the implementation of active methodologies, with the purpose of complementing the training process of in-service teachers.

In addition, it is characterized by presenting a particular structure in knowledge management. After the work in the face-to-face session, two virtual weeks of work were proposed. In the first, teachers had to select and plan a class using one of the active teaching strategies that was adapted to the needs and characteristics of the group they work with. They had a collaborative discussion forum proposed in the

UNAE virtual classroom. After that, they had to apply the lesson plan and record it in a video that was shared on the Padlet digital board in order to monitor the execution of the strategies to analyze their scope and limitations.

In addition, peer reflection was proposed to provide feedback on the implementation of the strategy.

Module 4 "Planning the proposal for the application of active methodologies / Narratives of experiences" sets out the objectives detailed below:

- Reflect on the lessons applied using the active teaching strategies learned in the course to select one of them and socialize the experience.
- Identify the scope and limitations of the application of active teaching strategies in real learning situations.

In this phase, the aim was to promote writing skills in participating teachers through the narration of their experiences during the training process. To this end, guidelines for writing the narrative were proposed. The guide asked participants to reflect on the reasons why they decided to write their narration on the selected strategies; what experience was most significant for them and contributed to meet their expectations. This narrative included the contextualization of their classrooms, the lesson planning process, the application and feedback obtained in the reflection process as well as the concluding remarks.

For module 5 called: "Active teaching strategies as a process of innovation of pedagogical practices" the proposed objective was the following:

- Socialize an experience of application of active didactic strategies through a fair of experiences.

The course was executed in a total of 9 weeks, with a duration of 123 hours distributed in the modalities: face-to-face and virtual. At the end of the course, the satisfaction questionnaire was applied, from which the following results were obtained:

In relation to the structure of the course, as seen in Fig. 1, the majority of in-service teachers selected the option a lot to indicate that it had exhaustive content: introduction, objectives, development of topics, activities, summary, glossary, participation in forums and expansion of content.

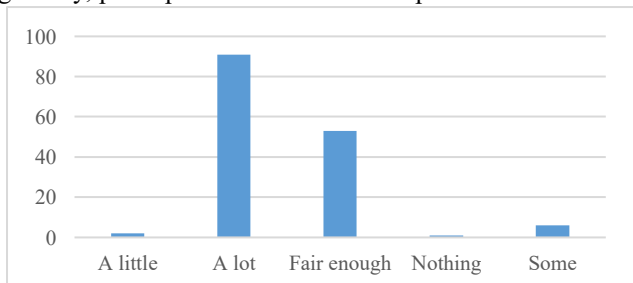


Fig. 1 Course structure (data gathered from the survey applied to teachers).
Source: self-made

In relation to the didactic methodology used, as seen in Fig. 2, the participants mentioned that the course attended to the different learning styles on a Likert scale by selecting the option *a lot*.

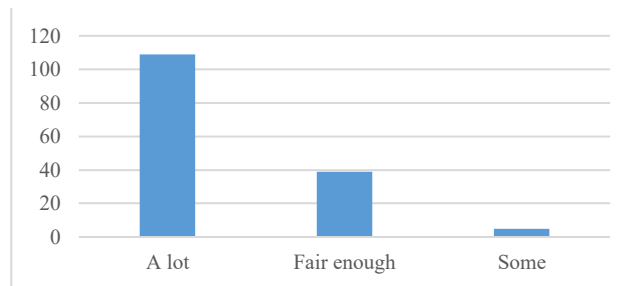


Fig. 2 Methodologies and learning styles (data gathered from the survey applied to teachers).
Source: self-made

Participants point out that the course activities were diverse, and went beyond the use of memory, facilitating comprehension and reasoning, turning the contents into active and efficient learning experiences, as seen in Fig. 3.

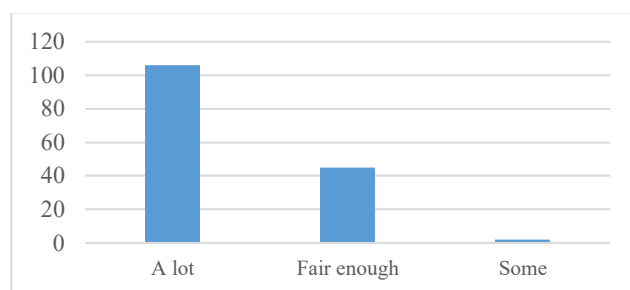


Fig. 3 Course activities (data gathered from the survey applied to teachers).
Source: self-made

In Fig. 4, regarding the course activities, teachers indicated that the study strategies and tools such as group work, forums, practices, among others, showed organization and didactic quality, so they contributed to learning and maintained their interest in the course.

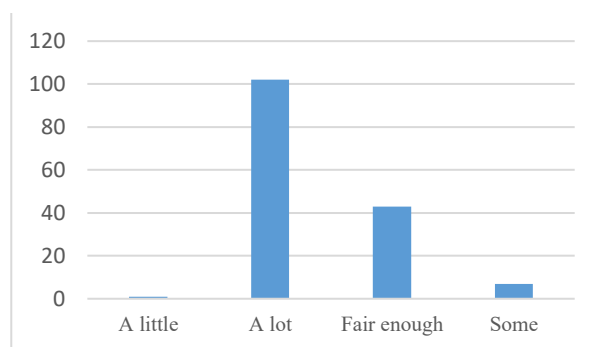


Fig. 4 Learning tools used during the training course (data gathered from the survey applied to teachers).
Source: self-made

As seen in Fig. 5, participants indicated that the multimedia resources used in the course were contextualized to the topic. They were adapted to the objectives and contents of the study unit or module.

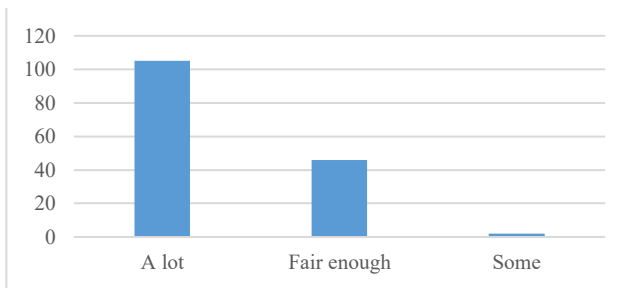


Fig. 5 Multimedia resources adaptations (data gathered from the survey applied to teachers).
Source: self-made

Teachers indicated that the course met their expectations as seen in Fig. 6. This indicator makes it possible to analyze the degree of satisfaction of the participants and therefore constitutes an important element to assess its relevance and subsequent replication.

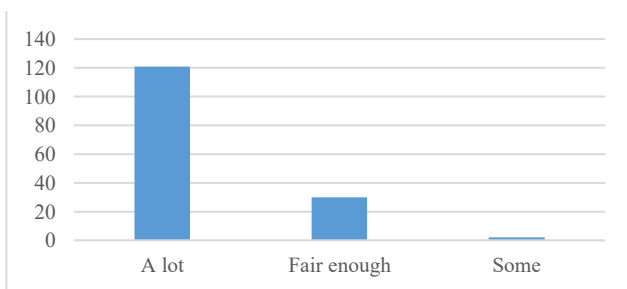


Fig. 6 Expectations fulfillment (data gathered from the survey applied to teachers).
Source: self-made

According to the participating teachers' opinion, the course will let them generate ideas that promotes a change in their professional performance. Fig. 7 shows the behavior of this indicator which allows us to evaluate the importance of the training course to transcend from the theoretical to the practical scenario. From this step it is possible to generate true transformations in the Ecuadorian educational system that contribute to the improvement of learning [11].

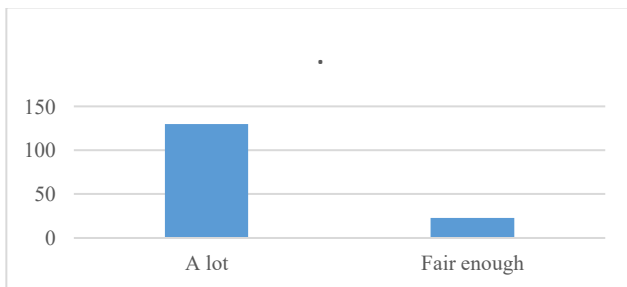


Fig. 7 The course generated ideas that favor change in professional development (data gathered from the survey applied to teachers).
Source: self-made

IV. CONCLUSIONS

In this study, it was possible to confirm the importance of responding to the needs of in-service teachers in the real learning contexts in Ecuador. The training course reaffirmed this through processes that allowed teachers to recognize themselves, meet and be ready to seek new ways, new

teaching approaches. This implied the essential task of ensuring the contextualization of the content, based on the needs of the participants.

Hence, it is important to be aware of the context needs to address the different curricular levels, in the training process. In such a way that the teaching practice in the classroom responds to a logic that connects it with the national and the school levels. In this manner, teaching becomes operational and gives meaning to the complexity of learning.

There is a prevailing need to propose theoretical-practical training courses that do not remain in the discourse, but rather transcend into practice. So, this experience is analyzed to reflect on the potential offered by each strategy learned during the teacher training course. This reflective process shows the limitations, barriers or difficulties that are present in real learning scenarios. As a result, reflective practitioners can look for solutions that make it possible to modify or adjust their teaching to their learners' needs.

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