

Active methodologies as a key element in teacher training for educational inclusion

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Abstract

The purpose of this research is to show the results obtained in relation to the improvement of training to promote student learning from an inclusive perspective. Teacher training in active learning methods for the promotion of inclusive education is essential to ensure quality and equity in student learning. Through the analysis of educational experiences, courses and programmes, we understand that it can help in the practice of the classroom and in the meaningful learning of students.

Starting from a qualitative methodology, we approach a descriptive–interpretive study of the information present in different programmes and experiences. We conclude that there are teacher training programmes that guarantee the use of active methodologies from an inclusive perspective.

Keywords: Active methodologies, teacher training, inclusion, school improvement.

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1. Introduction

Today, the role of teachers is not only to 'teach' knowledge that will have a limited duration and can always be accessed by other means, but also to help the student 'learn to learn' autonomously (Monereo, Weise & Alvarez, 2013).

The process of improving the quality of teaching is a complex process in which different factors come into play, such as educational policies, teacher training, resources available, centre cultures, educational contexts, etc. All these factors are particularly important, but more significant may be the type of teachers and the pedagogical practices they carry out in the classroom (Higuera-Rodriguez, 2019). Today, many teachers still have the idea that teaching practices must remain the same as they were years ago. Their way of conceiving the teaching–learning process is totally traditional and they do not conceive the idea of reviewing current and innovative methodologies for their implementation in their teaching (Beraza, 2012). However, there are other types of teachers who believe that educational improvement is related to quality and equity (Marcelo & Vaillant, 2009). This type of teaching staff has the uncertainty of whether their teaching performance is correct. Therefore, more experienced practical references are needed to help teachers who decide to guide their learning towards a more innovative process as examples.

For good initial teacher training to take place, specific teaching tools must be used to make the training complete and effective. Currently, pedagogical resources and tools are revolutionising educational practice, since they require teachers to identify factors and establish criteria to incorporate those quality teaching strategies in their classroom practice (Cardenas, Zermeno & Tijerina, 2013). For Area (2009), it is necessary to consider criteria for the selection, use and organisation of teaching media and materials, and the handling of instruments and approaches to evaluate teaching media and materials. All this leads us to think about the importance of an active methodology in the classroom. As mentioned by Casanova (2012), considering the methodology and the didactic tools is the only way to invent varied paths for each student to transit interest to the goals of education and achieve them. There is not just one route to reach the proposed goal, and it is the teacher who must discover which is the most appropriate for each person through an inclusive education that seeks to meet the learning needs of students and with emphasis on vulnerable groups at risk of social exclusion (Fernandez-Batanero, 2013).

Throughout the history of contemporary Spanish education, highlighting the importance of playing as the basis of all education has been constant. Many educators have explicitly mentioned the importance of gaming for educational action. Didactic play is a powerful element of participation and stimulation (Díaz-Sandoval, 2012; Sarle, 2006) since it is an activity that promotes the student's identity, and at the same time helps in his/her socio-affective, cognitive and motor development (Sagastizabal, 2004). Its importance comes mainly from the educational possibilities it has, i.e., depending on the degree of participation it has in students' learning, it will help more or less in their integral development (Gonzalez-Gonzalez, 2010; Zych, Farrington, Llorent & Ttofi, 2017).

In this research, we consider the relevance of initial teacher training for the quality of student learning processes. Therefore, the main objective of this study is to contribute to the improvement of the initial training of teachers in the primary education stage in the Spanish context, based on training experiences that help to improve teaching practice in the classroom. The research objective is to analyse teaching and training experiences that contemplate the use of didactic and playful strategies that help to facilitate learning.

2. Methodology

This research fits the paradigm of interpretive–critical research. The research approach allowed us to understand and interpret the study phenomenon, based on the systematic and detailed analysis of the reality of interest in our research: active methodologies in the initial training of teachers in the

primary education stage, in addition to analysing the social transformations that may occur through didactic tools and giving answers to the difficulties that may arise (Guba, 1990). Therefore, the methodological approach from which this research is approached is qualitative (Creswell, 2008). Through this methodology, we aim to achieve the breadth and depth of the research topic.

The data collection instruments used in this research are as follows:

- Institutional and technical documents: training plans, courses and programmes (e.g., Ruiz & Ispizua, 1989, Valles, 2009).
- Innovative programmes promoted by the Andalusian Government’s Department of Education.

The data analysis procedure was carried out through a content analysis (Flick, 2011; Huberman & Miles, 1994) where course content, tools, purpose and possible applications within the classroom were analysed.

3. Results

All the projects associated with different innovative programmes promoted by the Ministry of Education are presented. After searching with the different descriptors (gamification, didactic game, educational game, playful methodology and game-based learning), a total of 385 innovative projects related to our research were found. Figure 1 shows the percentage of projects linked to the different descriptors.

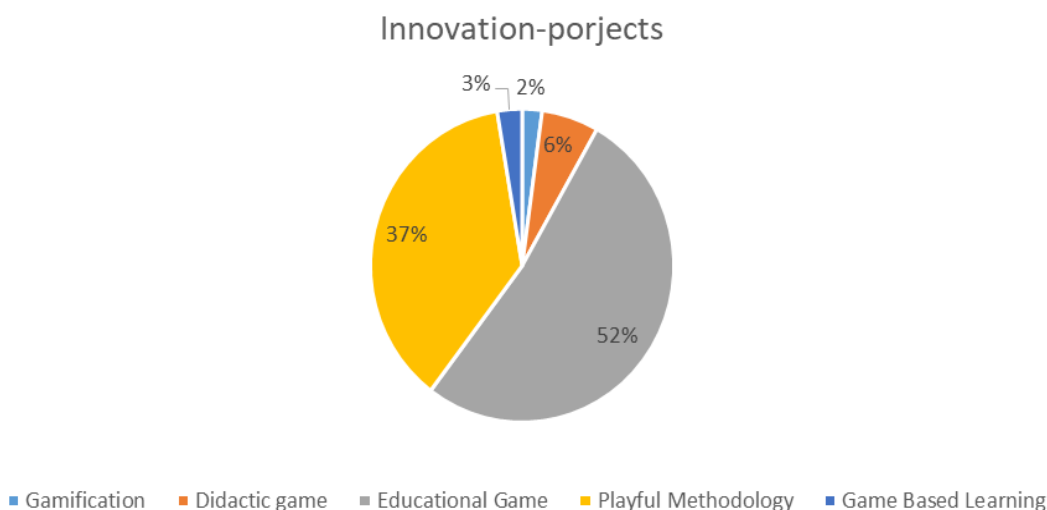


Figure 1. Innovation and projects

To carry out the descriptive analysis, only those belonging to the primary education stage were selected. After this selection, 101 projects relating to the educational stage were left. Table 1 shows the before and after selection.

Descriptors	All levels	Primary education
Gamification	2	1
Didactic game	31	7
Educational game	204	54
Playful methodology	131	38
Game-based learning	17	1
Total	385	101

For this analysis, the scope and innovative programme to which the project belongs has been considered. A total of six innovative programmes proposed by the Junta de Andalucía have been considered. These programmes are linked to different areas, which can be covered in different programmes (See Table 2).

Table 2. Innovative programmes

Innovative programme	Field
School map of positive coexistence	Equality between men and women in education (coeducation) Coexistence. promotion of coexistence values, attitudes, skills and habits Coexistence, school space and peace Coexistence, management and organisation Coexistence and participation Coexistence, palliative interventions for coexistence problems
Teaching–learning processes	School planning and organisation
Educational orientation and attention to diversity	Design of curricular materials Education in values Special educational needs Training and personal autonomy
<i>Learning and knowledge technologies</i>	Information and communication technologies Education in values School libraries and reading projects Attention to diversity Teaching–learning processes Design of curricular materials Educational innovation materials Literacy and language Coexistence, school space and peace Equality between men and women in education (coeducation) Research in teaching methodologies Teaching and communication in other languages
<i>Reading and school libraries in Andalusia</i>	School libraries and reading projects Literacy and language
<i>Healthy living habits</i>	Entrepreneurial culture Environmental education Health and consumption

It is observed that there is an interest in gaming as a knowledge promoter and that it is used to work on different contents, either for something or in a transversal and interdisciplinary way.

If we focus on the field, three important aspects are of great interest to us for our research, such as research in teaching methodologies, educational innovation materials and design of curricular materials. Some of the projects that focus on these areas are as follows:

- Squeak, a world to learn: The project aims, using the author’s Squeak tool, to improve the learning process of students by encouraging creativity and imagination.
- Resources for logical–mathematical development in infant and primary education: The aim is to incorporate and validate in the classroom motivation, playful materials and resources that favour the construction of concepts, comprehension, representation and logical–mathematical thinking from manipulation and playing in schoolchildren from 3 to 7 years of

age; this awakens their motivation and interest towards learning mathematics. We will use mainly waste materials and follow the existing path in the centre of conservation and environmental protection. They will be designed and elaborated for their experimentation, evaluation and use in the classroom of games in material and computer support, materials of support to the work of concepts and a didactic guide with the description of each resource, its process of manufacture and its didactic potential.

- Psychomotricity and reading–writing through ‘the rockodrome’ starts from the great difficulty recognised by teachers of infants and first cycle of primary school to initiate children in reading–writing and basic psychomotor elements (psychomotricity). We propose the use of climbing the wall as a highly motivating instrument capable of generating, enhancing and stimulating innate qualities of children to climb, with intuition of movement being one of the best ways to work the psychomotor in a playful way and build a global thinking approach that is not only physical motor, but also a walk towards the strengthening of an initiation to read and write content, knowledge of the body schema and, of course, attitudinal.

4. Discussion and conclusion

The changes that are currently happening in our society and the new pedagogical models that are being offered are continuously changing, as mentioned by Marcelo and Vaillant (2009). For there to be an improvement in education, we need processes that promote quality and equity.

Teacher training is presented as a fundamental part of educational change. We need teachers who are capable of facing different educational realities. We cannot be anchored in a traditional pedagogy where the important thing is the content and we leave aside the students and the educational context. We need learning that relates the content to the characteristics of the students with whom we work. As mentioned by Collins (1998), a malleable curriculum transforms the teaching–learning processes through didactic tools capable of generating more individualised teaching, based on inquiry and construction, with students more committed to the tasks they perform, from a competitive structure to a cooperative structure and fostering more active and participatory learning as opposed to more passive and verbalistic learning (Salvador, 2014).

Teachers must be able to contribute to the training of students so that they know how to take on the important social changes that are currently taking place. The knowledge and communication society is imposing the need for professionals who can cope with the rapidly changing labour market and the flexibility and mobility that characterise it.

To efficiently achieve this, teachers must consider their mission and design and develop their own educational project by taking into account the following three specific aspects of the ‘Student-Centred Learning: Time for a New Paradigm in Education’ (ESU, 2010), justified by Esteve Mon and Gisber (2011, p. 57):

- that the student is the centre of the whole formative process.
- that an active teaching methodology favours the training of more versatile and employable people and professionals.
- that it is learned on a permanent basis and it is necessary to follow-up this process, also on a permanent basis. Therefore, evaluation will be key in order to show that the proposed training objectives have been met.

Teaching contributes to student learning. But the fact that students learn is not the only, or probably the main, function of teaching, as students expand their knowledge through various means, of which teaching is one. In order for students to act effectively, they must be trained to learn to contemplate situations in a certain way, and for this purpose teachers must design learning situations or scenarios that are as similar as possible to those that students will encounter in the future work context, always guaranteeing equal opportunities (De Miguel, 2005).

In this sense, the study of teacher training courses and programmes helps to understand if it can really promote improvement in classroom practices and meaningful student learning. By using games as a didactic resource, it is possible to work on the different educational levels and it can become a key tool for educators (Baneres et al., 2008; Higuera-Rodríguez, Medina-García & Molina-Ruiz, 2020).

In short, the use and employment of these strategies help to boost student motivation towards discovery learning, the development of skills and abilities of different competences, the promotion of positive values and the development of autonomy and personal initiative by committing students to their own learning.

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