



The Project Work Methodology that Promotes Articulation between Educational Levels

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Abstract

Promoting a constructivist paradigm, based on a structured, interrogative and active pedagogy requires a culture that allows the recreation of projects with new resources and new ways of thinking and solving current problems [1]. The Project Method, inspired by Kilpatrick's [2] approach, favours an intentional, situated, flexible and transversal learning that promotes educational continuity, a relevant dimension in children's development. This study, inserted in the IFITIC (Innovate with ICT in Initial Teacher Training to promote methodological renewal in Pre-school Education and in the 1st and 2nd Cycle of Basic Education) project had the purpose of understanding the impact of the Project Method in the construction of a double profile of teacher training and the opportunity of integration of digital resources. A methodological approach of a qualitative nature was chosen, whose data collection focused on the content analysis of three intervention projects at two educational levels, Pre-School Education and the 1st Cycle of Basic Education. It involved five future teachers and 111 participants aged between 4 and 11 years. The results reveal that educational practices supported by an active pedagogy, within the framework of the Project Method, contribute to the construction of a double profile of formation that favours educational continuity and the transition between educational levels by promoting a common pedagogical project and processes of collaboration and knowledge sharing. In addition, it fosters a teacher and student profile that develops into a new educational paradigm that favours problem solving in a holistic learning environment that includes prior and contextual knowledge, important in meaning. It also includes an intentional and social setting that values diversity and multiplicity, flexibility, complexity of reality and the integration of digital technologies that respond to the interests of children and society in general.

Keywords: *initial teacher training, double profile, project work methodology, educational transition*

1. Introduction

For many years, children's education was part of the transmissive paradigm where the child's conception referred to a passive agent who received the teacher's instruction, the latter being considered as the holder of the knowledge. However, with the evolution of psychology and pedagogy, the conception of the child has evolved, giving it an active and participative role in the educational process. In this paradigmatic change, the role of the educator of children and the teacher of the 1st Cycle of Basic Education (CBE) has been imbued with giving a voice to the child, inscribing its educational action in a pedagogy of participation and listening. A reorganisation from the point of view of the formation of future teachers [3] is urgently needed by the double-profile master (Educator of children and Teacher of the 1st CBE) which allows for a formation of continuity between educational levels through the broad vision of the development of the child, the collaborative spirit between those involved in the educational process and the awakening to lifelong learning.

In Portugal, the aforementioned regulations on the initial training of teachers encourage joint qualification for Pre-School Education (PSE) and for the teaching of the 1st CBE, qualifying professionally for the general teaching of these two educational levels that respond to the exercise. Their functions reveal great openness and flexibility in the face of the multiplicity and complexity of the problems of a changing society, but also represent challenges in the face of the instability generated by the constant "becoming" of society and by the relativism that affects philosophical conceptions, cultural beliefs and scientific, technical and pedagogical knowledge that teachers need to rely on in order to base their pedagogical practice on a consistent theoretical vision, as Abreu states in the Education Council Report [4].

A double profile imposes another way of educating. In this sense, a pedagogical method, influenced by John Dewey's theories, the Project Method (MP) [2], has been revisited as an educational and formative strategy which starts from the interests of children through a question, or a theme to be researched, emphasising action and its actors, considering the experience of the child and the context, in the sense that education is life. In this context, analysing their project perspective, we can see four fundamental actions on the part of children (Figure 1) which reveal a fundamental growth in



the construction of new knowledge based on an intentional desire of the actors. Thus, producing, appreciating, selecting the problem and rebuilding are fundamental stages of personal and social growth, particularly when carried out as a team in a real context, so we consider a process adjusted to a changing world like the one we live in today and which responds to the profile of the student considered important in the Portuguese curriculum [5].

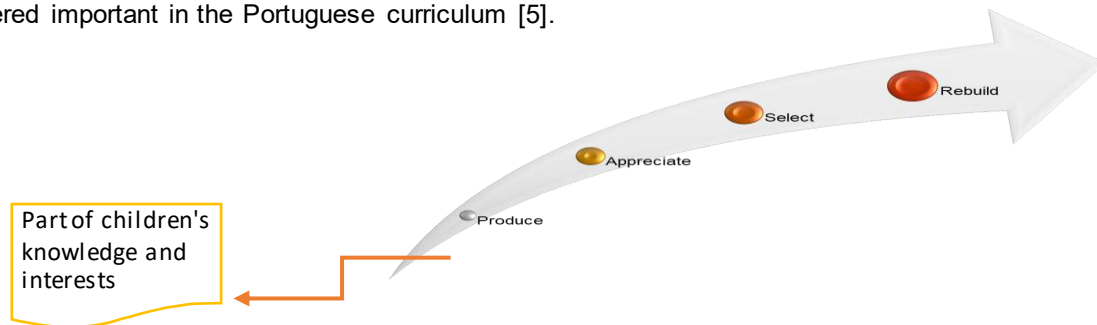


Fig. 1 - Project Method from the perspective of Kilpatrick (2006) - Own elaboration

This way of conceiving the intervention emphasises the transversality of curricular knowledge and the development of skills, attitudes and values inherent to the Portuguese curriculum. It is also provocative of a change in the teaching profile that is more guiding and facilitated of learning environments than transmitting, and of the student profile, since it goes from consumer to producer, responding effectively to societal changes with an action contextualized and situated in the time and emerging needs of educational contexts. In fact, the possible pedagogical continuity, enhanced by this methodology, is one of the key aspects in the training of double-profile teachers since "Pedagogy has been identified as a major factor underlying children's difficulties in the transition to school" [6, p. 66]. From the perspective of Vasconcelos et al [7], The Project Method is a project-oriented and transformative methodology that develops in four phases: Definition of the problem; Planning and development of the work; Execution, this involves the actions to be developed and their graphic and/or photographic record; Dissemination/evaluation. The phases of the project method stimulate the curricular articulation and the enriching sequence of knowledge, thus promoting meaningful learning from analysis and critical discussion [8]. The pluralization of the resources used emerges as a transversal concern in all phases, justifying mention in the contemporary framework of the relevance of technological and multimedia resources [9].

2. Methodology

The study, ethnographically based, is qualitative in nature and therefore involves an interpretative approach. The choice of this methodology is due to the fact that it constitutes a method of analysis of the thought of communicative subjects giving the researcher the possibility of interpreting their text by taking the organised information [10]. For the collection of data, the analysis of the content of the written testimonies made by five future teachers in their final reports was used. Three categories of Project Method contributions emerged: a) Contributions of the Project Method to the professional development of future double-profile teachers; b) Contributions of the Project Method to the development of active methodologies; c) Contributions of the Project Method to the integration of information and communication technologies. One hundred and eleven children were involved in the projects, fifty of them between four and five years of age, and sixty-one children between eight and eleven years of age.

3. Analysis and discussion of results

3.1. Contributions of the Project Method to the professional development of future double-profile teachers

At PSE and the 1st CBE, teachers respond to the development dimension of teaching and learning, considering the specificity of each educational level, but both conceive and develop the respective curriculum, through planning, organization and evaluation of the educational environment, as well as curriculum activities and projects, with a view to building integrated learning, as stated in the General Profile of Teacher Performance [11]. In this context, a professional with a double profile assumes a global and integrated vision that allows him/her to have an interdisciplinary and between educational



levels observation favourable to research on the processes that have an impact on the academic and personal success of children.

What do future teachers say about the contribution of the Project Method to the double profile? We have selected keywords from their discourse (Figure 2) that show that the Project Method fosters a vision of the two educational levels, favouring educational sequentiality and pedagogical continuity, team work and the sharing of knowledge and experiences, stimulates research and an active methodology that changes the educational paradigm.

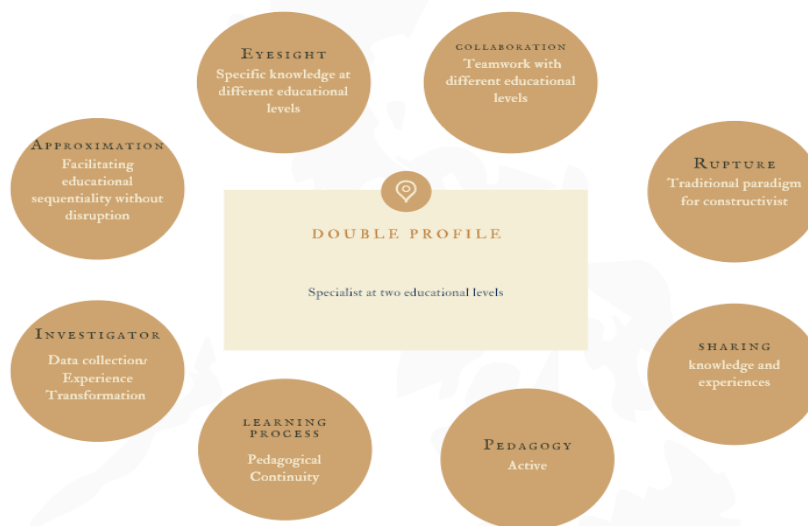


Figure 2. The Method of Project in the construction of the double training profile

3.2. Contributions of the Project Method to the development of active methodologies

In a child-centred learning process, Project Method gains prominence as a real problem-solving tool promoting transdisciplinarity of knowledge. We wanted to understand the opinion of our students who applied it in real contexts and the analysis of their answers directs us to two dimensions: the learning process and the impact of this methodology. As far as the learning process is concerned it can be seen that effectively the whole process is focused on the child, emerging from it and therefore corresponding to his/her interests. In fact, the students' statements confirm that this methodology involves children in the learning process, cherishing what they do for the meaning and contextualisation they attribute, for the relationships they establish. We add some students' voices:

"this project ended up being cherished" (AC, p. 81); "truly involved and committed" (CA, p. 86); "were of great relevance to the group" (AFC, p. 72); "to respond to the interests and needs of children and thus develop holistic learning" (CF, p. 30); "which occurred in a contextualized and meaningful way (SM, p. 80); "significant learning by the child" (CA, p. 55); "a rich process, characterised by constant significant learning and which will be valued by the child until its conclusion, only with this process will the child feel truly involved and committed" (CA, p. 86); "together with their interests and motivations, to promote contextualized, holistic and integrative learning" (CF, p. 83).

3.3. Contributions of the Project Method to the integration of information and communication technologies

As regards the integration of digital teaching and didactic resources, the pedagogical strategy takes on importance in educational practices and the academic and personal results of children depend heavily on it. In the selection of the resource, the teacher assigns it meaning according to the context/class and the intentionality of the educational practice, so the added value reflects the harmony between the key dimensions of the educational practice. In fact, it can be seen from the written records of the trainee students that there are factors that stimulate the use of digital technological resources:

- a) children's willingness to use digital technologies, with implications for motivation, encouraging favourable commitment and enthusiasm in the learning process;
- b) the recognition by parents that digital resources motivate children;



- c) the educational intentionality of educators/teachers: to create a motivating learning environment with implications for well-being at school; to foster communication bridges between educational levels; to develop in pupils skills, values and attitudes;
- d) the recognition of educators/teachers on the effects of the use of digital resources: when associated with a playful environment they improve the learning process; they improve digital skills and competences; they stimulate personal confidence. In this way they advise their use.

4. Conclusions

The Project Method aims at an educational intervention in another operative way in relation to the organisation of the teaching and learning process, where a new vision of educating and teaching how to learn, of managing conflicts and negotiating in order to seek consensus, of creating conditions emerges. In fact, it has been found that the Project Method contributes to a double profile of teachers who look at the two educational levels, PSE and 1st CBE, which favours educational continuity and the approximation of these apparently distant levels. It is also a promoter of collaboration and sharing of knowledge, which means that it can also facilitate the educational transition between educational levels, so we would add not only at the level of activities [12] and methodology [13], but also in collaboration and sharing of knowledge. It is also the promotion of active methodologies, centred on the child, which favour the construction of knowledge and competences based on curiosity, on their previous knowledge and context and on an intentional and social environment, and which value diversity and multiplicity, flexibility and complexity of reality. It is concluded that Project Method responds to the indices of the new educational paradigm and favours other ways of learning, more situated and flexible, holistic, stimulating educational continuity as fruitful for the development of children, seeking to form better citizens, attentive, capable of thinking and acting, intelligently critical to be easily misled, quick to adapt to the most imminent social conditions [2]. In it, information and communication technologies assume an important role in the re(construction) of the professional identity of future teachers through methodological renovation [1] [9] and the promotion of children as builders of their learning in a meaningful and participatory way.

Thus, it is important to orient the initial training of teachers with a double profile in order to contribute to a change in schools, more articulated and continuous, in order to promote a holistic and real learning, in life, natural in the transition and still in knowledge, know-how, opening great avenues of openness, knowledge, innovation, listening, creativity for the common good.

5. References

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