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The transformation of practical teaching focusing on dialogic learning

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Abstract

This study investigates the transformation of practical teaching in a Catalan school, connected to the design, implementation and development of project-based learning, and focusing on dialogic learning to investigate its limits and possibilities. Qualitative and design-based research (DBR) methods are applied. These methods are based on empirical educational research with the theory-driven of learning environments. DBR is proposed and applied using practical guidance for the teachers of the school. It can be associated with the current proposals for Embedding Social Sciences and Humanities in the Horizon 2020 Societal Challenges. This position statement defends the social sciences and the humanities as the most fundamental and important ideas to face all societal challenges. The results of this study show that before the training process, teachers apply dialogic learning in specific moments (for example, when they speak about the weekend); however, during the process and after the process, they work systematically with dialogic learning through the PEPT: they start and finish every activity with a individual and group reflection about their own processes, favouring motivation, reasoning and the implication of all the participants. These results prove that progressive transformations of teaching practice benefit cooperative work in class.

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Main text

Our society experiences changes every day, and needs new perspectives and new approaches to face them. Education isn't an exception, according Imbernón (2002, 2007) and Lago & Imbernón (2011), which emphasises the need for education systems to adapt to a changing society.

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This new reality is changing our education system and our students need teachers who apply new perspectives and methodologies that deal with this new society. Teachers must do more than simply transmit knowledge; they need to accompany students on this path to self-regulated knowledge construction.

To confront this situation, this paper proposes to analyse project-based learning, through dialogic learning, as a perspective that responds to student interests and problems, connects with the curriculum, as a globalising and dialogic perspective and one that considers experiences, stories and the context (Hernández, 2002, 2004, Hernández & Ventura, 2008).

This research focuses on a social-critical paradigm because it allows transformation of the teaching-learning practices used by teachers in the school. We use a qualitative methodology that helps us achieve the research objective. And we use a design-based research (DBR) method to create processes and connected theories and will benefit our practices (Joseph, 2004; Sandoval & Bell, 2004). This method studies how teaching-learning processes are being developed using the interaction between several subjective realities and establishing possible transformations (Brown, 1992; Collins, 1992).

We can relate this method and our study with the current proposals in the Embedding Social Sciences and Humanities in the Horizon 2020 Societal Challenges Position Statement. They defend the social sciences and the humanities (SSH) as the best approaches to treating all societal challenges. This discourse is applied through four research proposals (Science Europe, 2013, p. 2-4):

- Proposal 1: SSH research and researchers should be properly embedded in the decision-making process about how societal challenges are developed and implemented.
- Proposal 2: A number of ‘SSH cross-cutting themes’ should be embedded in all societal challenges.
- Proposal 3: The budgetary context for vital research on social, cultural and economic questions must be set appropriately.
- Proposal 4: Non-academic partners should be broadly defined in H2020.

1.1. Dialogic learning

The dialogue is a neutral means to achieve a shared wish, although the diverse opinions are always present. At the same time the dialogue can pose how a way to conceptualise or to structure the relation between speaker and listener, between that social and the person and between the curriculum and the student. The wish for the dialogue is a wish of community: the interests of the person that foster dialogue are the interests that relate to the community (Wells, 2001).

The dialogic learning occurs when the receiver is able to answer with a reiteration that the sender wanted to express and dialogue is not static, or fixed, or repetition. The dialogic learning means that we can find different views and different ways of seeing and knowing, which leads us to reflect on their own opinions and perceptions and those of others. Through these reflexions, my connection with other subjectivities change and as a result produces a learning.

1.2. Methodology

The participants in this study are five primary school teachers:

Table 1. Participants

	Course 2011-2012	Course 2012-2013
Teacher: Cristina	Level first A	Level second A
Teacher: África	Level first B	Level second B

Teacher: Lorena	Level first C	Level second C
Teacher: Alicia	Level second	Level third
Teacher: Igor	Level fourth	Level fifth

With a focus on DBR, the structure is essential to promoting learning and transformation, creating useful knowledge and contributing to the progress of theories of learning and knowledge in complex and new contexts. DBR is a method that gathers resources and previous knowledge from interactions between participants and several stages of teaching-learning processes. This method also helps us describe, explain and analyse investigation data (Hoadley, 2004, Hadjerrouit, 2005). Cobb & Gravemeijer (2006, 2008) apply this method in three phases: planning phase (phase 1), experimentation phase (phase 2) and retrospective analysis phase (phase 3).

Phase 1 deals with necessity detection, the confrontation between the transformation and the negotiation of the objective or the objectives of the research in the school. Here, we deal with the research proposal and the applied change of educational perspective as the result of guidance. During phase 1, work is begun to elaborate the theoretical framework and methodologies (beginning of 2011-2012).

In phase 2 we have carried out the first non-participative observations in the class, we have organised discussion groups with the school administration and interviews with participating teachers (midterm 2011-2012).

Phase 3 analyses first results in order to begin the cycle of phases again (end of the year 2011-2012). After these three phases, the next year (2012-2013) starts and we re-apply the experimentation and analysis phases to obtain the final results.

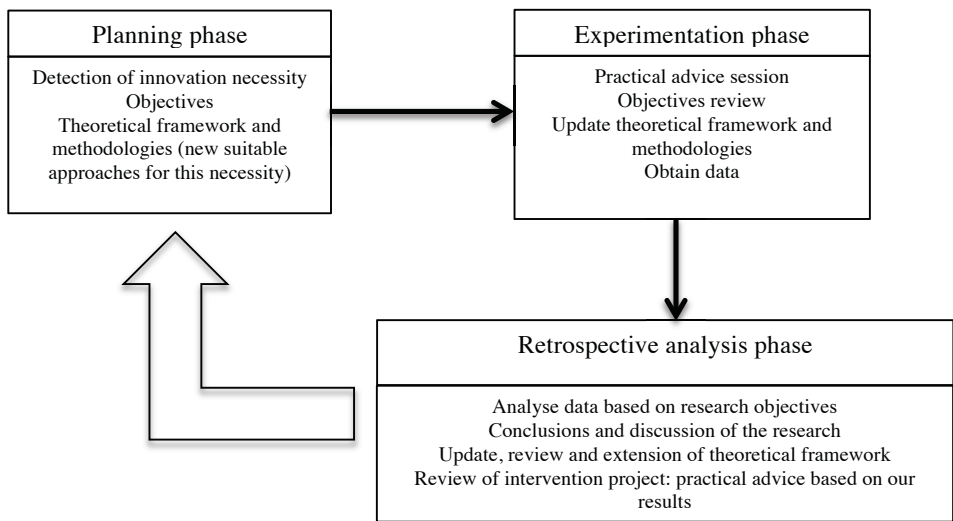


Figure 1: Methodological framework

1.3. Results

An analysis of transformations of teachers connected with the implementation of dialogic learning in their classrooms has allowed us to identify the change from the use of dialogic learning in specific activities or at certain moments to its use in various activities right away in the morning or to talk about the weekend. This change marks the beginning of relating to the dialogic perspective as an implicit, always present, classroom philosophy.

Table 2. Teachers' interventions.

"What did you do at the weekend?"

Practical guidance benefits this change. During two years of practical guidance, several stages have been experienced depending on how closely involved in it teachers are.

Practical guidance was provided by the school administration and the teaching staff was reluctant get fully involved due to their lack of knowledge and uncertainty.

Tabla 3. Teachers' interventions.

"The organisation of the curriculum and the testing of basic competencies don't allow the school to work only using project-based learning"

Teachers start to incorporate dialogic learning in isolated situations in which they think it will help students achieve new, important learning and, at the same time, motivate them. Teachers expand their point of view and start to incorporate dialogic learning in their teaching-learning practices more often.

Table 4. Teachers' interventions

"Are you ready?"
"Today I bring you a poem".
"Who wants to read it?"
"What do you understand about this poem?"
"Do you want me to read it?"
"I want everybody to speak about the meaning of the poem".
"Do you want to make a circle and speak about it?"
"We need to find our space".
"Who wants to start to speak about the poem? What is the meaning? What do you think about it? Do you like it or not?"
"What do you mean? Is the meaning of the poem this, really?"
"What is the meaning of this word?"

As we have seen through the interventions of teachers and these are incorporated in their classrooms dialogic learning, not as a single activity, but as a neutral measure to promote learning and reflection.

1.4. Considerations

An analysis of transformations of teachers connected with the implementation of dialogic learning in their classrooms has allowed us to identify the change from the use of dialogic learning in specific activities or at certain moments to its use in various activities right away in the morning or to talk about the weekend.

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