

Project Based Learning: Bringing Citizen Empowerment to the Educational Agenda – Interpreting Three Learning Experiences Developed in Higher Education

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Abstract

The aim of this poster is to show how participative training techniques and specifically Problem-Based Learning (PBL) can be used in higher education successfully. Taking for example three different experiences we present the objectives, the procedures and the results achieved with a PBL approach centered in the empowerment of more engaged and reflective citizens. The cases were developed at the Polytechnic Institute of Beja (Portugal), in three different curricular units that belong to three different thematic and degrees: 1) what are the mainstream concerns of mediterranean farming: developed with students of mediterranean farming post-secondary course; 2) what is the meaning of death and how to face the dying process: explored with undergraduate nursing students and 3) what means Human Development in nowadays society: exercised with master students of social and management sciences. The effectiveness of the practices is proven by the positive attitudes taken by the students towards the learning process (motivation) during classes and by the acquisition of a more complete understanding of what means being a pro-active citizen in nowadays society. PBL is an effective and successful teaching and learning method that stimulate collaborative understanding of subjects.

Keywords: Problem based learning; Participative teaching and learning techniques; educational challenges

1. Introduction

The profound changes that we have experienced at the political, economic, social and cultural levels of our so-called «postmodern» society, poses permanent challenges to teaching and learning methods, in order to guarantee the empowerment of students for the new skills involving the action and reflection they need. As Jara (2016: p.23) points out, “(...) it is imperative that we educators, who commit ourselves with the transformation in our daily practices, ask what dilemmas and what challenges we face in order to develop in our practices this education for transformation and through it, be part of educational policies and educational guidelines”.

Problem-based learning (PBL) has long been used in higher education as a method to educate students using realistic problem-based actions (Bate et al., 2013). Starting from a given problematic situation, the students identify learning pathways, explanatory hypotheses, which allows them to better understand the problem and achieve the defined learning objectives.

As defended by Barret and Cashman (2010, p.8). “PBL is a total approach that has four interrelated dimensions:

1. An ill-structured challenging problem is presented to students at the start of the learning process. The sequencing of presenting the problem before any other curriculum inputs is a key and distinguishing characteristic of PBL.
2. Students work on the problem in small PBL tutorial teams generally with 5-8 students per team. The role of the PBL tutor is to facilitate the learning process.
3. PBL is underpinned by a philosophy of higher education that focuses on students learning rather than teachers teaching.
4. PBL compatible assessments aim to ensure that authentic assessments are aligned with learning outcomes and the problem-based learning process”.

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Taking into account these characteristics, three different learning experiences were developed in Higher Education classes using the PBL approach. The experiences took place at the Polytechnic Institute of Beja (IPBeja), in Portugal, with students of three different curricular units that belong to three different degrees, with the common goal of empowering more reflective and proactive citizens.

2. The three PBL experiences

2.1. Experience 1: Challenging the limits of learning

The context

The curricular unit of Animal Production belongs to the post-secondary course in Mediterranean Farming. In the current school year, we decided to challenge the students with the question “What would you like to do in this Unit?” Participative training techniques were used to help them answer this question and steer them through the work. In accordance to students’ expectations, it was decided to organize a full day meeting to share experiences and knowledge between students and farmers, technicians and researchers.

Methodology

The different steps used throughout the process were systematized as follows:

1. Where we are and where we want to go: a reverse classroom methodology was used, inviting the students to a silent dialogue allowing to review all the contents they had learned before.
2. Organization of the event – what will it be like? The themes and the guest speakers were chosen.
3. Task distribution among groups. The students assumed total responsibility for the organisation, under the supervision of the teacher. The difficulties were solved in each group through solution-centred reflection.

Results

The “Full day of sharing experiences and knowledge”, had the participation of eight guest speakers, and four simultaneous workshop sessions focussing on production of: 1) fresh goat cheese, 2) olive oil sweets, 3) fruit caviar, and 4) acorn biscuits. The event was open to the academic and non-academic communities.

In the end, students recognized how much they had learned, even transcending the limits of the unit topics, and all of them agreed that the success was due to the fact that the work was done in a collaborative and consensual way.

2.2. Experience 2: Breaking taboos

The context

In Latin societies, death undoubtedly remains a taboo subject. However, attitudes toward death, and the level of anxiety experienced when faced with death and dying, vary from one individual to another. Death attitudes are related to and influenced by individual beliefs and social and cultural environment. Death anxiety is defined by Abdel-Khalek (2005) as the set of negative human emotions characterized by worry, anxiety, and insecurity, accompanied by apprehension, tension, or distress generated by the awareness of one’s own death, by seeing symbols related to death or by feelings of imminent danger. Death is an inevitable phenomenon. Indeed, despite our attempts to control it, death, disease, and suffering are reminders of how little power we have over the circumstances of our lives (Aradilla-Herrero et al. 2012).

It was observed that the way death is dealt with when training nursing students does not sufficiently prepare them for real situations and to ensure the appropriate support for patients and their families.

In order to help students to confront the individual meaning of death, an experience was developed in the context of the Curricular Unit of Relational Intervention in Nursing, in the first semester of the first year of the Nursing degree.

Methodology

We resorted to group dynamics methodology, focusing on one question: What is the meaning of death and dying?

Group Dynamics provided an atmosphere of interaction and reciprocity between the members of each group and the teacher. It gave the participants an opportunity to carefully listen to and accept each other's experiences in this matter.

Each student wrote an anonymous card, sharing his/her idea about death. According to what was shared, three groups of meanings were identified:

1. Fear of death
2. Non-acceptance of death itself
3. Death as a concept

The fear of one's own death reveals the awareness of one's own finitude and the constructs of how the end will be and how it will occur.

When non-acceptance of death occurs, death is perceived as more traumatic, the younger the patient, and even much more traumatic when it involves children.

The concept of death varied according to individual beliefs, some of which were spiritual in nature.

Results

The reflection made it possible to realize that the best way to work on themes that are taboo is to talk about them. In professions that are very dependent on human relations, taboo themes influence negatively the correct action and decision.

The educative processes should help students to deal with taboos in a way that they can be interpreted and overcome. For nurses, death is a reality that they often encounter, therefore it is crucial that they can work through their personal values, concepts, and prejudices about death and dying.

2.3. Experience 3: Demystifying common-sense representations

The context

The concept of Human Development is one of the most commonly used and, simultaneously, one of the most trivialized. It is often used particularly when we sum up in one expression the desire to have a better and fairer society. However, what does Human Development truly mean? What meanings are associated with it? What characteristics must nations or communities assume to be developed?

In a master's degree focusing on training local development practitioners, such as the master's degree in Community Development and Entrepreneurship, taught at the IPBeja, the reflection on the theoretical and, above all, practical meaning of the concept of Human Development is absolutely central.

Methodology

Since it is a concept so often used, session 1 began precisely with the challenge: What is Development to you and how do you define it? Individually, each student shared with the class his/her meaning of Development, writing it on the board. They were asked to do so in words, phrases or very short sentences.

Based on what was shared we concluded that, to them, Development meant essentially: growth; progress; industrial production; employment; job creation; evolution; technological advancements; innovation; qualification; good infrastructures.

Then the students were asked to organize themselves into groups of no more than five people. Each group had to choose from a list of key stakeholders with responsibilities in local development⁴. Each group would have to reflect on the meaning of the concept of Development with the person chosen, in a face-to-face meeting. Fieldwork was carried out in the week following session 1.

The results obtained were shared in session 2 in the same format: to define Development in single words, phrases or very short sentences. The results were very different from those obtained in session 1, though. The most repeated expressions/words were now: social justice; education; access to health; culture; equal income distribution; employment; quality of life. Because of the fieldwork, the representations associated with Development had moved from a purely economic view, typical of the first scientific meanings of Development, to a more complete and correct perspective, according to

⁴ One responsible for a local development association; the person in charge of the development department in the city council; the one responsible for the regional business centre; the director of the municipal library; the head of one of the city's high schools; the head of one of the health centres; and a social work technician working at the social security institute.

which Development is associated with social welfare, equitable distribution of economic, cultural, and educational resources and/or access to health resources.

Results

Through this shared learning experience, it was possible to demystify typical representations of the dominant discourse, which, through redundancy and “social amplification”, have become almost irrefutable truths. The purpose of this exercise was precisely to make the students aware of the need to break with the preformatted “truths” through critical analysis and based on real observed data. Education has this responsibility: to foster the critical, reflexive and proactive spirit of the students.

3. Outcomes

The use of participative training techniques stimulates students to learn in an autonomous, responsible, reflexive, knowledge-generating way and, at the same time, increases their capacity for action, understood here as practical work and research. Students and teachers engaged in PBL make more real-life connections and school is regarded not simply as a place where you go to learn but instead becomes the entire experience of learning itself. We are always learning, always growing, always experimenting.

According with these learning experiences we realise that PBL:

- Develops students’ skills, preparing them to act and to be critical,
- Promotes collaborative work and leads to a common focus and
- Improves the affective relationships that generate students’ and teachers’ transformation, by developing significant empowerment skills.

In short, PBL practices challenge the boundaries of learning and ensure the work on skills and knowledge that are essential in our day-to-day life.

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