Teaching and Learning Perspectives in Higher Education[1]

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Abstract

This describes practices of teaching and learning in a course included in a master's program curriculum in the field of health sciences and evaluates the potential of these practices in the acquisition of knowledge and the development of critical thinking and understanding.
The course lasts 14 weeks and includes contributions from several scientific areas; the analysis of a subject is stimulated through several topics; teaching is oriented to learning objectives arranged into modules and goes through several phases.
Were observed 34 hours of classes, using an observation rubric, we interviewed 2 teachers and 4 students. For data categorization, we used content analysis (Bardin, 1977).
The observations revealed an interactive environment among peers and between students and teachers. The assumption of a student-centered and integrated education perspective may help learning, potentiating the development of autonomy and critical thinking skills, understanding, curiosity, self-confidence and self awareness.

Keywords: Teaching; Learning; Higher Education

1.Introduction

Teaching is a complex pedagogical action, considering the multiplicity of variables and skills required in and out of the classroom. Teaching transcends the scope of the visible, objective and quantifiable, teaching is not just what teacher does in class, but also students' motivation, their interests, their attitudes and their conceptions about the process of teaching and learning. So the quality of teaching depends not only the teacher but on a set of organizational factors that may affect teacher performance (goals, schedules, resources).

So, the methods used by teacher are according to his knowledge as well as the purpose of the training process. In this article, we discuss about different perspectives of teaching and learning, widely used in medical education, which tend to favor a consolidated knowledge of the contents, as well as a strong individual accountability and autonomy, with consequences in personal and professional development.

Within an humanist perspective, the curriculum focuses on the student and the teacher 's role “is that of a facilitator who has a counseling relationship with students and who guides their growth and development” (Joyce & Weil , 1996 , p.297). According to Rogers (1985) this perspective has the purposes of leading the student to a high state of mental and emotional health, helping him to develop self-confidence and self awareness, taking into account the individual needs and aspirations of students and consider them as

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partners in determining what and how they learn, as well as developing a qualitative thinking in particular with regard to creativity and expression, fundamental characteristics for solving problems, which can be optimized through a process of interactivity .

Despite the kindness of these intentions, they will not lead, by themselves, to deepening and consolidating knowledge, individual responsibility and autonomy. So it's important to " create an environment where students and teachers are partners in learning, share ideas openly , and communicate honestly with one another " (Joyce & Weil, 1996, p.297). However, the autonomous and student-centered learning seems to appeal to a strong individualism: " gifted students prefer to work alone" (Joyce & Weil, 1996, p. 69) what could be be mutually exclusive of the idea of collaborative learning and the development of autonomy . The development of partnerships implies personal effort and carrying out tasks autonomously in order a fruitful group work. In this regard, based in a research carried out by Qin , Johnson and Johnson , in 1995 , Joyce and Weil (idem , p.68) argue that "the cooperative structures generally generate improved learning in the important area of problem-solving". Zabalza (2008) also argues that autonomous learning and student-centered so widely referred in the educational discourses, only occurs if certain conditions are observed in the curriculum development process: mentoring, student's preparation, appropriate technological infrastructures and teaching.

Furthermore, teaching can be considered within a behaviorist perspective, focused on training students to perform complex behaviors, which involves a high level of precision and coordination with one another. Space and time of learning are considered opportunities to enhance it and it is expected that students establish a strong commitment to the tasks they perform. According to Snell (2000, p. 2):

> a good self-directed learner therefore needs a number of skills. (…) learners must be able to reflect on practices, identify learning gaps, and have well-honed questioning skills, (…) learners must have well-developed information location and retrieval skills (e.g., the ability to search a computer database efficiently). They must also have well-developed critical appraisal skills to allow them to access and assess the value of new knowledge.

Teachers who have high expectations for their students and concern for academic progress

> demand excellence and behavior conducive to academic progress. (…) A major goal of direct instruction is the maximization of student learning time (…) and the ability to perform a skill independently and without error" (Joyce & Weil, 1996, pp. 344-347).

We think that an integrated approach of teaching and learning "may have important benefits for learning and retention because it facilitates contextual and applied learning, and can promote the development of well organized knowledge structures that underlie effective clinical reasoning" (Muller , Jain, Loeser & Irby , 2008 , p.2).
The combination of different perspectives will be a strong way to forming competent professionals, to develop them attitudes supporting either a good professional or an engagement with life long learning (Shokar , Shokar Romero & Bulik , 2002).

2 . Methodological options

This study was developed within a framework of a research project involving seven universities (4 Portuguese and 3 Brazilian), whose primary goal is to describe, analyze and interpret teaching, learning and assessment practices in higher education.

Data collection provide from several instruments: surveys, semi-structured interviews (SSI) focus group (FG) and classroom observation (CO). The observation was made in courses covering the scientific fields of Social Sciences, Arts and Humanities, Engineering and Technology and Health Sciences.

At the University of Minho were observed in the first half of 2011/2012, 2 courses from Arts and Humanities, 1 from Social Sciences and 2 from Health Sciences. The object of this study is one course of the first year of the undergraduate program of Health Sciences.

It was observed 34 hours of classes, using an observation rubric, which dimensions provided from the theoretical framework of the AVENA project: teaching, learning, assessment and classroom environment.

In order to understand teachers and students perspectives about teaching and learning in the course that we observed, we interviewed 2 teachers and 4 students, whose content was recorded, transcribed verbatim and then subjected to a content analysis and categorized (Bardin, 1977). The categories were defined a priori, according to the project framework AVENA, but emerged from the SSI, the FG and CO other categories through an inter codification process.

To ensure anonymity, the code "I" was attributed to the expression “interview”, "T1" to “teacher” and "T2" to the other teacher. Students were assigned the following code: "FG" for focus group and "S" student "FGS".

Then, we proceed to the triangulation of the data and structured a narrative to the course observed. In this article, we present and discuss teaching and learning dimension.

3 . Presentation and discussion of results

The lectures took place in rooms with about one hundred twenty students. In turn, the theoretical-practical classes were developed in laboratories with thirty students per class. Teaching was organized in four phases and the planning depended on the pre-defined objectives, as referred by a teacher :

I prepare phase 1, giving students lots of contents in a short time, in order they can discuss and reflect. (...) Obviously that phase 2 is more practical (...), I give them practical examples. (IT2)

Throughout the observations, we could observe that teachers didn’t aim only the students acquire knowledge but also to promoting the autonomy, focusing on the interaction. This was confirmed by teachers: "we imagine a subject that can be more relevant to students, that will benefit from the interaction between teacher and student" (IT1) and "(...) I prepare lessons to encourage students". (IT2)

The teaching method for both teachers was predominantly interactive (Joyce & Weil , 1996), although with some lectures that teachers considered important: " We use clearly an interactive method (...) We don’t value so much the lecture method, although it is also important in some moments . " (IT1)

This interaction was achieved through questioning permanently students, encouraging participation and promoting their interests. According to a teacher, " (...) we always have some questions and try to stimulate students the best we can ," " (...) we force them to participate more and more in class. " (IT2)

Much of the classes were conducted to sharing in small groups and teachers gave the opportunity to dialogue, as well as they regulated the activity: "students can ask teacher at any time if they don't understand " (IT1). Students had freedom to put questions, in or outside the class, as they argued in the focus group : " if we have doubts, we ask or sent them " (FGS) .

A perspective of teaching and learning, strongly closed to the autonomous work, conducted students to taking on learning strategies, such as research tasks and self-study, from the materials provided by teachers " during the first class, teachers put questions and we study contents at home. " (FGS)

When students made questions, teachers rarely answered directly, helping them and guiding them to the answer by formulating new questions, a strategy that develops the reflection and engages students on their own learning. Fundamentally, it is a process of a tutor self-learning, essential for fostering an autonomous learning (Zabalza, 2008) .

Students felt these strategies as a way to motivating and engaging them in the learning process: " if we make questions we can have better learning and if we go into this class unprepared, we can't learn, because we can not understand the contents". In this regard, a teacher said : " the system (..) gives great possibilities to those who are autonomous, (...) who have self-discipline, who are hardworking and intelligent , but it causes great difficulties to those who want all the contents very expositive . " (IT1; IT2)

At the same time, the high level required does not avoid the consolidation of a strong collaborative work among peers, what deconstructs the idea that good students prefer to work alone (Joyce & Weil , 1996). Students recognized " (...) we are always here ready to help one another: I have a doubt (...) can you explain me? "(...) At most, we are all good colleagues " (FGS). This idea was supported by a teacher : " I think there's a reasonable spirit of helpfulness. (...) There is always competition, but we don't feel it within the classroom. " (IT1)

In summary, students appreciated the teaching and learning process "it is impossible to leave the faculty without being a good student. It's great (...) the experience is excellent " (FGS).

4. Highlights

The observations revealed an interactive environment among peers and between students and teachers. The assumption of a student-centered and integrative education perspective seems being very useful for learning, for the development of autonomy and critical thinking and understanding. This course is a successful example. These perspectives improve learning, critical thinking skills and understanding, curiosity, self-confidence and self awareness, which tend to favor a consolidated knowledge of the contents, as well as a strong individual accountability and autonomy, with consequences in personal and professional development.

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