Teaching at the University: Analysis of a Case Study Concerning First Employed Teachers

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ABSTRACT

The paper reports the results of an investigation on teaching supported by digital equipments in an Italian university. The opportunity for the study arises from the creation of a particular training activity for first employed teachers (called TFA), and it aims at analyzing the teaching styles adopted by professors when the use of digital technologies is proposed to support didactics. Two main results emerge from the collected data: first, most part of professors have a common view of the use of digital technology in teaching, based on the support that tools can give to their work; second, university professors usually have little or no consciousness of the positive influence that virtual environments can have on teaching and how e-learning can help students in autonomously building and develop their knowledge.

KEYWORDS

Digital Competence, E-Learning, Teaching, Tools for Teaching and Learning

INTRODUCTION

In this work teaching planning and carrying out, in two different situations, is discussed: first the strategies to be used in a traditional teaching activity with a reduced use of information and communication technologies (ICT/IT) is proposed, second the influence of a technology-based contexts (pervasive computing and social networking) on teachers’ work is analyzed.

It should be remembered, in fact, that the discussion of teachers’ competences and of the strategies to be used in teachers’ work, in Italy like in the rest of the world, has been based on different theories and psycho-pedagogical paradigms. These paradigms,
that have been developed over the time, have highly influenced didactics in formal contexts, and in what follows a summary of their features is reported.

Under the assumptions of behaviorism (the first paradigm reported here), which considers observable behavior more important than the understanding of mental activities, behavior has to focus on simple elements (stimuli and responses), and learning is the expression of a behavioral change. The principles of behavioral theory have been enriched over the time with many contributions, leading to instructionism and to the definition of mastery learning (Bloom, 1968), with the main aim of improving the quality and the level of students’ performances. As a consequence, teachers’ education and training had to be centered on the strategies they had to adopt for the successful communication of scientific topics and for helping the students in the learning of the discipline contents.

On another hand, cognitivism, has focused on the tools allowing data and information acquisition and their elaboration and storing. The attention for teachers’ education has now been centered on the tools to be used in the classroom to help students to interact with reality and autonomously construct their way of learning.

Constructivism, at last, has proposed two different interpretations for human learning and knowledge development: the first, based on the interactivist theory, which has given much more importance to the biological matrix of learning and to the interaction between the subject and the environment (Piaget, 1981; Ausubel, 1963), the second (social constructivism), which has given a prevailing role to social interaction in the learning process, by means of the zone of proximal development (ZPD), where learners construct their knowledge by means of the language, through socially mediated interactions (Vygotskij, 1974). Moreover, socio-cultural constructivism has suggested further interpretation for human learning by means of the contribution of the cultural situated approach in the construction of knowledge (Varisco, 2002). The influence of constructivism on teachers’ education is now mostly centered on the strategies for the construction of learning environments, where the students can benefit of a situated approach to learning and can develop collaborative strategies of learning. On this side, other contributions from non-formal educational contexts must be highlighted, the most relevant among which are: the experiences on cognitive apprenticeship (Collins et al., 1987), the communities of practices (Wenger, 1998), and the legitimate peripheral participation (Lave & Wenger, 1991).

The studies described so far have led many authors to introduce the notion of “teaching styles” to create three different classes of teachers’ behaviors and approaches to education; in each of them the influences of the psycho-pedagogical paradigms described above on teachers’ work can clearly be found, and the result has been the definition of the following styles: top-down, bottom-up and social (Dolmans et al., 2003).

The analyses reported until now have produced a better description of the knowledge, the instruments and the processes that teachers need for their everyday work and have led to the definition of special learning environments, called rich, within which new strategies for teaching could be applied (Varisco, 2002).
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