Teaching with ICT: The Policultura and Moodle Didactic Format Experimented in Schools

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ABSTRACT

Presented is the research and professional development results carried out by teachers on the use of educational technologies in the classroom in the course of an experimentation based on the Policultura&Moodle didactic format. The training course was designed as an integrated model of presence (laboratory) and online activities and focuses on the use of LCMS (Learning Content Management System) Moodle as a resource for achieving a deeper interaction with both the institutions involved in the projects and with students (and their families) as well as for supporting and disseminating the educational activities carried out in the classroom, with an online environment that would enable the exchange, the interaction and sharing of the study content.

Keywords: Didactic Format, Educational Technologies, Information Communication and Technology, Moodle, Online Environment, Teachers

INTRODUCTION AND BACKGROUND

This paper presents a research and a training as a professional development course destined to teachers on the use of modern technologies in the schooling process. These initiatives were carried out in cooperation with the teachers of six classes of Junior High Schools whose seat is in Umbria (S.M. Cocchi/Aosta in Todi, S.M. Vera in Amelia, S.M. Bonfigli in Cerciano, S.M. Antonietti in Bastia Umbra, I.C. De Filis in Terni, S.M. Dante Alighieri in Spoleto). They participated in a national project called Cl@ssi 2.0 begun in the 2009-2010 year (http://www.scuola-digitale.it/classi2.0). In the 2010-2011 year the concerned classes were also involved in the Policultura&Moodle format within Learning4All, a part of a national project financed by the Fondo per gli investimenti della ricerca base (FIRB) (http://www.learningforall.it).

The teacher professional development should be planned as a form of life-long learning and promote the possibility of matching different educational methods. From this point of view, the concept of education is to be changed: the traditional model, mainly transmissive and repetitive, characterized by a limited capacity of motivating and involving teachers in their work (Cerini, 2000), is to be overcome, while a model based on social constructivism, guiding adults’ education, is to be preferred. Having said

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that, knowledge is the result of an active and conscious work carried on by a subject, availing himself of forms of cooperation and social negotiation. He can also create new knowledge, because the learning subject knows, controls his own learning methods and is able to add the acquired knowledge to his conceptual scheme (Jonassen, 1994). Therefore, a deeper ICT and e-learning-based culture is to be promoted, being aware that it will not substitute the relations existing in the classroom, but rather match them with the online ones. ICT allow indeed more participating and cooperative activities difficult to be carried out in the classroom only. ICT allow self-assessment processes and at the same time knowledge construction (activities report, forum participation, input resources, collaborative writing) (Trentin, 2008). This way, the prejudices and reservations (often irrational) made by teachers about these new methods are to be overcome.

Taking into consideration the international recommendations on the matter, one of the school’s main objectives is leading students to consciously and critically use ICT; therefore, theoretical and in-service teacher professional development courses are to be planned and implemented in the perspective of life-long learning. They will enable teachers to directly experiment online environments and promote personal researches on the possible applications of ICT to the schooling process.

At international level, special attention is paid to the promotion of the teachers’ digital competence as ability in managing, exploring and assessing ICT, as well as adapting their content to teaching. In particular, teachers have to be endowed with basic digital literacy, ICT use, ability in adapting ICT to teaching and in matching ICT with other teaching key-competencies.

In 2008 the UNESCO issued the ICT Competency Standards for Teachers, provided with guidelines aiming at improving the learning standards all over the world. This document states that ICT literacy is to be matched with a new pedagogic-didactic culture; therefore, teachers should be aware of this objective and able to identify the components of education reform programs that correspond to these policy goals. Corresponding changes in the curriculum entailed by this approach might include improving basic literacy skills through technology and adding the development of ICT skills into relevant curriculum contexts.

The first aim of this project is to prepare learners, citizens and a workforce that is capable of taking up new technologies so as to support social development and improve economic productivity. It can be fulfilled by adopting guidelines for all teachers, specifically for planning teacher education programs and training offerings that will prepare them to play an essential role in producing technology capable students. Today’s teachers need to be prepared to provide technology-supported learning opportunities for their students. Being prepared to use technology and knowing how that technology can support student learning have become integral skills in every teacher’s professional repertoire.

In order to reach these goals, the UNESCO stated the following three Teacher Competence Standard Modules:

1. Technology literacy approach (developing the ICT knowledge by including basic digital literacy in the teacher training curriculum);
2. Knowledge deepening approach (improving the teachers’ ability in using ICT to solve problems);
3. Knowledge creation approach (increasing teachers’ engagement in knowledge creation and innovation).

The ICT literacy is a part of a wider vision of the teacher training, including: policy and vision, curriculum and assessment, pedagogy, organization and administration, teacher professional development.

By crossing the three approaches to education reform, based on human capacity development (technology literacy, knowledge deepening, and knowledge creation), with the six components of the educational system (pol-
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