Chapter 3
Policultura and Moodle: The Development of Different Talents in the Inclusion Perspective – A Case Study

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ABSTRACT

This chapter presents the research and professional development results carried out by teachers on the use of educational technologies in the classroom in the course of an experiment based on the Policultura and Moddle didactic format. The training course was designed as an integrated model of presence (laboratory) and online activities, and focuses on the use of LCMS 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, interaction, and sharing of the study content. The chapter also presents a case study carried out in a classroom taking part in the experiment showing that ICT can enhance different talents in the perspective of school inclusion.

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. It also presents a case study carried out in a school taking part in the experimentation showing as ICT can enhance different talents in the perspective of school inclusion. 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 Corciano, 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 school year (www.scuola-digitale.it/classi2.0). In the 2010-2011 school year the concerned classes were also involved in the PoliCultur&Moodle format within Learning4All, a part of a national project financed by the Fondo per gli investimenti della ricerca di base (FIRB) (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 tradi-

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tional 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 adult education, is to be preferred (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 (Jenkins, 2006; Trentin, 2008).

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 in 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.

The Technology and Engineering Literacy Framework for the 2014 NAEP is a complex framework including three fields of research (Technology and Society, Design and Systems, Information and Communication Technology), where the technology literacy includes skills concerning knowledge, abilities, critical thinking and decision making.

Moreover ICT have to become a fundamental dimension of the school educational project, also within an inclusive education that focuses on the person, allows to develop the resources and potential of each student, both expressed and unexpressed, and enhances them within a collective context.

The relevant role that ICT play as privileged tools to support and facilitate inclusive processes is widely acknowledged (Becta, 2007; UNESCO, 2009; European Commission, 2010), so that efficient strategies are to be adopted to train teachers in acquiring expertise needed for the use of these resources in teaching.

Teachers are therefore requested to get these multimedia and technology skills. They provide for a level of literacy for the management of online learning environments, the design and construction of hypertext and multimedia products, as well as the basic elements of programming. All these factors, anyway, have to be accompanied by *a new cultural approach*, that includes awareness of the changes introduced by the new media in education and in the process of teaching/learning, and a new approach to the teaching/learning that requires the ability to use new media as communication resources for teaching (Rivoltella & Rossi, 2012).

Technology can indeed amplify the capacity and the potential in the subject and allow new processes of learning and communication strategies using different languages and strategies, all of them important from the point of view of education (Booth & Ainscow, 2008). Technologies can therefore be considered as a mediation tool and an aid in learning as well as in growing and can be used to facilitate and promote the ability to communicate with the society, the school and the work world. They are also relevant to develop and get knowledge, to avail of new expressive and creative potential, to facilitate and promote the autonomy and to form a sense of self-esteem. In particular, ICT are perceptually and emotionally engaging, so that they can reduce the learning difficulties using multimedia languages, allow learning content according to personal methods