The Assessment of Learning Mediated through an IWB

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ABSTRACT

The most recent studies have shown that the introduction of technology in schools is not a factor that improves student achievement unless other context factors related to teaching methods and the teachers who use them are present. This paper aims to illustrate and consider the results of an action research project, carried out by the team of the University of Salerno in 2011/2012, on the “Assessment of learning mediated through an IWB”. The theme of this work concerns the relationship between the learning mediated through an IWB and the evaluation methods. Starting from a specific experience and considering the link with the theme of motivation, the use of an IWB that leads to perception of effective interventions of the teachers involved in the project has been presented. This empirical approach may constitute the first step towards assessing the use of an IWB. The conclusions of the research action will constitute a chance to reflect on the validity and appropriateness of doing tests with an IWB.

Keywords: Environment Assessment, Interactive Whiteboard (IWB), Learning, Motivation, Technology in Schools

INTRODUCTION

Over last 10 years, the interactive whiteboard (IWB) has become one of the most popular forms of educational technology (Dostál, 2011; Glover & Miller, 2002, 2003; Glover, Miller, Averis, Door, 2005; Moss, Jewitt, Levaaic, Armstrong, Cardini, Castle, 2007). At the basis of the idea that led to its creation and diffusion, there is a constructivist epistemological idea, with new and strong links between constructivism, designing instructional models and technologies being created. Constructivism represents, especially in the United States, the virtual place where cognitive scholars, educational planners and technologists meet. The collapse of rational and linear epistemic axioms according to which knowledge can be represented using hierarchical logic models, implies that constructivism is placed at the top of the active and polysemic.
nature of knowledge construction meaning. There are three main concepts that characterize the current constructivist view and are realized when using an IWB for educational purposes:

1. Knowledge is the result of an active subject construction;
2. It has a character set, that is closely connected to the context in which it takes place;
3. It is realized due to a form of cooperation and social negotiation.

It is evident that these three theoretical axioms are a practical outlet in the IWB. Constructivism, in fact, places the person who learns at the centre of the educational process. A process that becomes an “active construction” by the subject. It is closely related to the concrete situation in which learning takes place, and that, therefore, can be generated by social collaboration and interpersonal communication.

Support and value of using an IWB in education can also be found in Bruner (1966). It is worth considering his assumption that knowledge is “making meaning”, which implies a creative interpretation that the subject uses when he wants to understand the reality surrounding him.

Learning is no longer understood as a personal activity, but as a product of a collective dimension of interpreting reality. Knowledge is built not only on past experiences, but also and above all through the sharing and negotiation of meanings expressed no longer by an individual, but by a community of practice. In this sense, learning, as D.H. Jonassen (2000) supports, is meaningful if it is simultaneously active, constructive, collaborative, conversational, intentional, contextualized and thoughtful. The final goal, therefore, is not the acquisition of pre-established specific equal content, but rather the internalization of a learning methodology that progressively makes the subject autonomous in cognitive processes. These cornerstones of epistemological order support the hypothesis that the use of the IWB at school and, more generally, in various contexts, is not only recommended, but desirable. The IWB which saves and expands the lesson, is diametrically opposite to slate memory, it is an open door to didactics.

The IWB is not only outside and inside the classroom, but is also very important to learning evaluation, as a cardinal point in the geography of our design.

The teaching-learning process is a complex phenomenon, in which cognitive factors intertwine with relational, psychological and emotional ones. However, within this process, a necessary and indispensable teacher-student relationship is evaluation. It is an incessant activity, with internal communication that exists in the educational relationship.

Considering the emerging guidelines related to the meaning of learning and teaching, how does the idea of educational evaluation change?

In recent years, there has been a profound rethinking of teaching evaluation, which has been reflected both in techniques and assessment tools, as well as in the “philosophy” of considering the moment of the evaluation and its relationship to the teaching/learning process. An expression that effectively summarizes these changes is “assessment for learning”, coined in the context of a working group on the reform of evaluation in the United Kingdom, opposed to the term “assessment of learning”. If the latter is used when the function evaluation is to ascertain and certify socially learning outcomes achieved by the student in his school experience, the first assumes the assessment as a formative resource useful in guiding and promoting the learning process. The basic principle underlying the assessment for learning brings the value of metacognitive processes as tools of awareness and control of their own learning. In this perspective, assessment becomes a formidable opportunity to meta-cognitive activities and strengthens “learning to learn” (Assessment Reform Group, 1999).

Black, Willam et al. (2010) with assessment for learning means “all those activities undertaken by teachers and/or students who
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