Teaching Practices in iPad-Classrooms: Alignment of Didactical Designs, Mobile Devices and Creativity

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ABSTRACT

Creativity is socially constructed and is not an objective fact at all. How do teachers perceive students’ creativity and how can they foster students’ creative learning? From two case studies, one in higher education and a second on iPad-classrooms in schools, the paper reflects on didactical concepts for creativity using mobile devices. Interviews, classroom observations and qualitative data were analyzed. The results reveal that the most creativity has been observed when the teacher designed such activities for mobile learning where no correct solution is available. When there is a shift from traditionally separating ICT and education to new co-located settings where mobile devices and education merged into new learning expeditions, then there is a need to rethink traditional Didactics towards Digital Didactical Designs bridging ‘learning what is known’ (curriculum-driven learning) and ‘learning when the answer is not known’.

Keywords: Case Study, Creative Learning, Digital Didactics, Mobile Technology, Schools

INTRODUCTION

The Social Construction of Creativity in a Context

The problem with the term creativity is that there exist a lot of different definitions and also contradictory meanings in the research field of creativity (e.g., Boden, 1994, Fischer 2011; Herrmann, 2009; Jahnke, 2011, Watson, 2007; Amabile, Hadley & Kramer 2002; Gardner, 1993). For instance, the different researchers discuss what and who is creative, e.g., the person, the product, the process, the environment; the individual great mind; a smaller group in interaction; a larger group, an organization, the society. Individual, social and collaborative creativity are some of those different concepts. Despite – or even because of – these manifold concepts of creativity, no precise definition of creativity is available. One example of how to study the pluralism of creativity in higher education is explored by Jackson & Shaw (2006) and Kleiman (2008).

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To illuminate the research problem, we might acknowledge for example that creativity for a firm which designs shoes or software programs might be different than creativity in sociology in universities or language schools. Further, researchers (e.g., Csikszentmihalyi, 1996) argue that the idea-generating person is only creative when an external authority assigns the value of their creations. But creativity is subjective. When a person thinks s/he is creative this is true for her although it does not necessarily mean that this idea is also a creative one for another person or group. Different people might assign creativity to different things; this may change dynamically over time. What seemed to be creative in the past may or may not be seen as creative in the present and future (or vice versa). Also, there is a difference between creativity (generating new ideas) and innovation (acceptance of new ideas).

Because creativity is subjective, it always needs to be defined within a specific context. Creativity is socially co-constructed, affected and colored by societal structures. According to Berger and Luckmann (1967), in “the social construction of reality”, people construct their understanding of creativity. People have different understandings what creativity is and how to observe it. Thus, it doesn’t make sense to ask in general what creativity is – but it is useful to study the different conceptions of creativity in a context like schools and higher education and to make the diversity visible.

The guiding overall question in this paper is: How do people socially co-construct creativity, what are their conceptions of creativity in a specific context like schools; what does creativity consist of with regard to teaching and learning from their perspective and how can it be supported from a didactical and technical understanding?

Traditionally, Information and Communication Technology (ICT) “has been segregated from the normal teaching classroom”, e.g. computer labs (Henderson & Yeow, 2012). This has been changed with the advent of smaller flexible devices, like iPads. Differences from laptops to flexible small and easy-to-handle multimodal devices are discussed elsewhere, for instance by Johnson (2013). The assumption that the iPad is different from laptops is also supported by Jahnke, Norqvist & Olsson (2013). Their interviews with teachers included quotes such as “the iPad works”, “you open an iPad and it works”, “you don’t waste time like with the laptops where the batteries where out of energy or the software wasn’t installed”.

One answer by a teacher, regarding why there is some hype around iPads, was: “There is no technology in there!” and she pointed her finger to the iPad. Of course, an iPad is made of technical elements and it is a pure technical device. However, with that quote the teacher’s point of view becomes clear: the teachers perceive the iPad as a device that is easy to use instead of a complex complicated technical device. This is one major difference to the laptop. The second guiding question in this paper is as follows: To what extent can mobile technology be useful to support creativity; to what extent is it integrated in the didactical designs?

To study the alignment of didactical designs, creativity and mobile devices, this paper presents results from two cases a) DaVinci, teachers’ conceptions on student’s creativity in higher education, and b) Odder, K-9 schools using iPads in classrooms. Results will be presented and discussed.

**Didactical Designs, Creativity, Mobile Technology**

In this paper, mobile learning is defined as teaching and learning supported by mobile devices like iPads. Broader issues around “mobile learning” and what and who is mobile have been debated elsewhere (e.g., Sharples, Taylor, & Vavoula, 2005; Sharples, 2006; Pachler, 2007; Traxler, 2007; Jahnke et al. 2012). However, in this paper, the innovation of iPads was the point of departure to start the research study. The paper does not focus too much on technology. Rather, the main aim is to study the relationships between didactical designs, creativity and mobile devices.
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