Chapter 38 Digital Pedagogy from the Perspective of Early Childhood Education

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ABSTRACT

The context of this proposed chapter attempts to approach the concept of "digital pedagogy" focused on particular educational conditions of preschool education. It attempts to support the compelling reasons that require broadening the scope of the theory of "digital pedagogy" in early childhood education. It looks forward to the articulation of traditional pedagogical theories in conjunction with the fundamental principles of "digital pedagogy", elaborates further risks and suggests possible limitations, and highlights a deliberation associated with digital pedagogy from the perspective of early childhood education. It describes a framework for implementing digital pedagogies in order to exploit the professional development of early childhood educator.

INTRODUCTION

Pedagogy is the discipline that deals with the theory and practice of education; it concerns the study and practice of how best to teach. According to Freire and Macedo (1987) pedagogy helps educators to understand their teaching in local and global contexts, to help them to "read the world" of their practice. According to Watkins and Mortimore (1999) pedagogy is defined as "any conscious activity by one person designed to enhance learning in another". Good teachers are intellectually curious about pedagogy (Leach & Moon, 2008). In this context we will try to analyze the concept of the Digital Education.

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The Concept

"Digital Pedagogy" may suggest the ability to choose and use digital tools, and to integrate them into the classroom experience, adding to the experience of learning and the learning outcomes of the pupils. Digital pedagogy has been variously defined; broadly defined, it is the use of electronic elements to enhance or to change the experience of education. A very inclusive definition considers that "digital pedagogy is the use of electronic elements to enhance or to change the experience of education" (Croxall & Koh, 2013). According to UCL Centre for Digital Humanities (2013) - "Digital Pedagogies" are innovative methods of teaching – using ICT tools to facilitate and foster a high quality digital learning space. A great number of questions exists around how teaching techniques can be modified and how can digital technology be enhanced to meet the needs of 21st century virtual learning.

Digital Pedagogy (DP) could be seen as "the study of how to teach using digital technologies" (Howell, 2012). Jesse Stommel (2013) proposed as a definition that "Digital pedagogy is less about knowing and more a rampant process of unlearning, play, and rediscovery". DP includes the ways Information and Communications Technologies (ICT) are used in learning contexts. This concerns the types of beliefs of teachers that influence ICT practices in the classroom and the alignment of these beliefs to current pedagogical reform. DP helps teachers appreciate the role of technology in the teaching of pedagogy and content knowledge (Kivunja, 2013). DP offers an understanding not only of the range of ICT tools that might be used for a particular task, but also how to employ teaching strategies to use them to greatest effect. DP is a way of thinking about learning. DP is less a "servant" to reinforce existing practices than a "partner" to change the way the teacher and the children interact with one another and the given task.

DP includes several axiomatic changes to traditional pedagogy and has more in common with a constructivist approach in which students construct their own knowledge in a social context. However, digital pedagogy goes beyond that to include teaching about and for digital technology for learning. Central to digital pedagogy is the co-construction of knowledge. DP includes planning for learning which is less content -than problem- solving based. It can present knowledge as problematic rather than as fixed, this leads to move from remembering content to gaining a deep understanding of concepts (Kent & Holdway, 2009). Research-based evidence suggests that an application of technology enables us to "learn differently and to engage in different types of knowledge creation" (Howell, 2012).

Similarly, DP is about much more than simply teaching about or with digital technologies. DP recognizes the fundamental shifts in the way learning is occurring, and responds in ways that value for what it is known about effective teaching. DP applies effective teaching in a context where learning is ubiquitous, where learners have agency over their learning, and where knowledge and understandings arise through the connections that are made in a network of provision. DP is based on three key concepts: ubiquity, agency, and connectedness. Ubiquity refers to the pervasiveness of digital technologies. Agency refers to the power or capacity to act and make choices. Connectedness is about having a sense of being part of something that is bigger than one's self.

DP develops critical analysis, metacognition and reflection, often through creation, editing and publishing online (Luckin et al., 2009). As has been suggested, "knowledge is now a verb, not a noun — something we do rather than something we have" (Gilbert, 2005). One of the factors forcing to identify new and emerging pedagogies is the fact that the use of technology for learning is the concern that education may increasingly drop back because of the way people use technology today, for socializing, working and learning. Learners now have very high expectations, such that educational systems fail to satisfy. Ubiquity, accessibility, agency, connectedness, rapid feedback and ease of use are all features of

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