

## Chapter 23

# Minecraft Schooling: Digital Learning for Junior Years

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### ABSTRACT

*Playing digital games is an important leisure activity for a large number of us. Research shows that a large number of children play digital games for leisure purposes. One of the games played is Minecraft. This chapter outlines how Minecraft is being used in junior year settings by referring to academic literature as well as communities of practice available on the internet. The authors outline a set of activities incorporating Minecraft aimed at seven year olds which were designed to introduce a series of curricular topics in a class in a Maltese school. Following qualitative data analysis the chapter outlines a series of outcomes that were extracted from this project*

### INTRODUCTION

Children of the present generation are being brought up in a digital environment ringed by the latest technology and extremely interactive games. It is common to observe children spending a vast amount of time playing either on tablets, mobile phones or hand-held consoles. Busuttil, Camilleri, Dingli and Montebello found that in Malta 97.6% of 3-6 year olds and 88.7% of 7-12 year olds play digital and video games. Other reports for Europe (GameVision Europe, 2010),

Australia (Brand, 2012) and the US (Lenhart, Kahne, Middaugh, Evans, & Vitak, 2008) also provide similar figures. Children enjoy playing digital games since the majority of children in the primary age bracket play digital games in their free time for at least an hour every day. The study discussed in this chapter adopts a game-based learning approach by integrating the popular game Minecraft into teaching within an educational setting. This study was inspired by the amount of time Maltese children spend playing digital games.

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## BACKGROUND

New experiences are an essential prerequisite for mental growth. According to both Pringle (1986) and Isaacs (1968), it is the opportunity of new experiences that makes learning possible. A teacher can foster, limit or impair intellectual growth depending on the opportunity and encouragement given to the pupils in class. Schools should be child-centered and discovery orientated which regard pupils as active learners. Through play the child experiences a first-hand exploration of the world and learns to cope with it. Play is usually voluntary, engaging, intrinsically motivating and possesses a make-believe element. Salomon, Perkins and Globerson (1991) observe that children are able to achieve a state of 'mindfulness' if they are intrinsically motivated by something. This leads to the acquisition of meaningful and fruitful knowledge. Isaacs and Pringle both concluded that play is extremely important for the child's intellectual development since children learn best by doing. Play allows pupils to develop holistically and to acquire new knowledge about the world they live in. It is a form of self-expression which enables pupils to release their feelings in a safe way and deal with their emotions. Through play pupils are able to explore relationships, solve problems, take risks, and use trial and error to find things out about their world.

Educational, psychological and anthropological research point out that socialization and learning throughout a person's life can be encouraged and bolstered by play. Play and imitation are natural learning strategies for children, therefore asking children to play is like asking them to do what is natural. Piaget (1962) regarded play as an assimilation scheme and imitation as an accommodation strategy. Games provide essential opportunities for individuals to develop critical thinking and problem-solving skills.

Unfortunately play and games are easy targets for misconceptions and criticism hence reducing their likelihood of being used as learning tools.

The word play can be misinterpreted since it is mistakenly believed that play is only directed towards young children (Rieber, 1996; Sutton-Smith, 1997). Provost (1990) points out that play is viewed as something which one has to cease to do as he grows up. Unlike work, play is also perceived as easy and is not respectable (Rieber, 1996). On the contrary, Rieber (1996) suggests that play is an activity which stimulates and engages individuals who in turn dedicate a great deal of effort and time to it. It also encourages them to persist in challenging and difficult quests (Rieber, 1996).

Postman (2011) believes that technological change is not just an addition to a toolbox but requires a cultural change. Drastic changes in the curriculum, ways of teaching and means of accessing knowledge should be the result of progress in technology. Technology is portrayed as a tool to enhance learning, communication and proficiency in specific content (West & Bleiberg, 2013). Simulations, games, amplified reality and the spectrum of new technologies used in education are promoting significant and powerful changes in today's education (West & Bleiberg, 2013).

The complexity of teaching encompasses a range of tedious tasks which require a substantial amount of time to be grasped by students. New technologies facilitate the recollection of necessary basic facts which in turn grants the teacher time to support those students who require individual aid (West & Bleiberg, 2013). Some educators are terrorized by the thought of technology taking over their teaching career. Even though technology can be pernicious it can serve as beneficial to the teaching profession if used properly (West & Bleiberg, 2013). Technology is not replacing the teacher but is in fact an extension of the teacher. As Bill Gates notes technology is just a tool, the teacher is vitally important to get the children motivated to work together (Walker & White, 2002). The teacher's role is now even more important than ever before because their role needs to change to facilitators of learning. Technology allows teachers

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