Abstract

The goal of reading comprehension is to develop an overall understanding of what is described in text. Readers construct mental representations of situations portrayed in text as they read. Envisioning the events as they occur in text is essential for generating an accurate situation model of the narrative.

As reading comprehension is a complex cognitive process, there are many instances where difficulties arise that result in comprehension failure. Research notes that the development of situation models is one of the most difficult aspects of reading comprehension for less-skilled readers (Woolley, 2010). Given the favourable outcomes that visual supports have on the development of situation models (Rakes & Smith, 1995), and the perceived affordances of virtual reality on the generation of mental representations (Rapp, 2005; Russell & Kozma, 2005); the researcher hypothesises that the use of virtual reality can support the creation of accurate situation models and thus improve reading comprehension.

In order to investigate the hypothesis, a research study was devised which assessed the situation models of primary school pupils when using virtual reality as a comprehension support. A mixed methods exploratory case study was implemented to enable the researcher to gain a comprehensive insight into the impact of virtual reality on the generation of situation models. The study implemented constructivist methodologies focusing on the accurate visualisation of narrative text.

The qualitative and quantitative data generated and analysed in this study suggests that the intervention had a positive impact on the generation of coherent situation models and on

participants' reading comprehension. The research recommends that further research is undertaken in this area to fully investigate this phenomenon further.