

Abstract

Digital Games Based Learning (DGBL) builds upon the concepts of deriving the satisfaction and the stimulating potential of games in the educational context (Prensky, 2005). Thus, the design of educational games has to address optimising satisfaction as well as learning. DGBL have been reported in literature to offer enjoyment, entertainment and often associated with greater cognition efforts, offering collective e-learning discourses that are grounded on pedagogical comprehensive philosophies of dialogue.

It has been reported that most of South African schools; especially the previously disadvantaged schools; are experiencing performance barriers in the Language of Learning and Teaching (LoLT) English as well as in Mathematics. The state of learner's performance in the above mentioned subjects present a serious crisis which is characterised by underperformance. Learners are not able to solve mathematical problems, and find it difficult to read simple text and construct a meaning from such text.

The study was piloted in selected schools in Gauteng Province South Africa (SA). Mixed method research was used and combining qualitative and quantitative surveys. Data were collected in selected schools; teachers and learners in the field of English and Mathematics were sampled; interviews were conducted and questionnaire forms were completed.

Even though in-depth research has been done on DGBL in other countries, South Africa(SA) has not done enough. Research findings are teachers in SA school do not use games in teaching on a regular basis. Therefore, it is recommended that, research and continuous update on DGBL software; teachers support by DBE as well as SMT should be emphasized to ensure that DGBL materialised in a classroom environment.

This research is performed ethically and permission was obtained from the relevant institutions for the research to take place. Questionnaire has been completed anonymously and voluntarily, participants were also informed that their answers would be kept completely confidential. There will be no harm to the participants. The same processes were applied to the interview instrument.

To enable collaboration, technologically independent and for designing suitable computer based and computer mediated discourse; a constructivist approach has been used in this research. These computers based and computer mediated discourse includes digital-games designed, to enable affordances.

Key words: Game-Based Learning; Pedagogy, Stimulation, Learning