This article examines the issues of learning engagement and describes the socio-cultural context of Quest Atlantis’ (QA) implementation in a series of science lessons among primary Four (10 to 11 years old) students in Singapore. QA is a Multi-user Virtual Environment (MUVE). It uses 3D virtual technology to create an interactive environment to immerse children aged between 8 and 12 years in educational tasks which it calls quests. The mix of software and hardware gives users an illusion of being immersed in a 3D space with the ability to interact with the objects in that space by using input devices such as keyboard and mouse. The 3D virtual environment is then characterized by two elements that facilitate learning engagement- immersion and interaction. To examine how QA is used in a series of science lessons related to the water cycle, water purification, and water pollution, the qualitative exploration of the planning and implementation of QA in the lessons of the teacher involved in the study, the students’ engagement in the QA space and activities, and the context of participation of the teachers and students where QA was situated were examined by observing lessons, interviewing students, and documenting the submitted quests and reflections. A quantitative exploration of students’ engagement, based on the qualitative data, and development of a repertoire of competencies in the science topics were examined by comparing scores from pre-and post-QA-mediated lesson series assessments. Results of the study showed that although there was a significant improvement of the posttest over the pretest, the level of engagement of the students was slow. The lack of engagement might be a result of the distractions in the 3D MUVE, the students’ difficulty with language used in the QA, their lack of computer competency for QA tasks, and/or their inability to complete the quests’ section on reflections. The authors held the view that the biggest challenges to the integration of QA into the science curriculum were the interdependent issues of time (or lack of it) and ‘buy-in’ by the school and parents.

Keywords: Affective behaviour; Course content; School engagement; Science education; Sociocultural theory; Multi-user Virtual environment; Secondary education; Singapore.