

**ZMATH 2015c.00836**

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**Students' experiences and perceptions of using a virtual environment for project-based assessment in an online introductory statistics course.**

Technol. Innov. Stat. Educ. 7, No. 2, 15 p., electronic only (2013).

Summary: Course projects have been argued to help develop students' statistical thinking, but implementing authentic and realistic course projects still presents major challenges. This paper evaluated students' experiences and perceptions of using an online simulated virtual environment, known as the Island, for implementing major course projects within an online masters level introductory statistics course. The use of the Island aimed to overcome significant practical and ethical constraints imposed on project-based work in online courses. The project required students to answer a self-posed research question by gathering and analysing data using methods covered in the course. The project was divided into two parts, a mid-semester proposal and an end of semester online presentation. Following completion of the projects, forty-two students responded to a questionnaire which rated their level of agreement to three aspects of using the Island: engagement, ease of use and contributes to understanding. Students were also asked to provide qualitative comments and five students participated in semi-structured interviews. Qualitative feedback was analysed to help explain the results from the quantitative questionnaire. In conclusion, perceptions of the use of the Island for project-based assessment were very positive. Qualitative feedback provided insight into how the Island-based projects may help to develop students' statistical thinking.

*Classification:* K15 U75 D45 U55

*Keywords:* statistics education; university teaching; online courses; project method; research; experiences; student attitudes; questioning; interviews; virtual environment; project-based assessment; statistical thinking; information technology; educational software; simulation; scientific research design and analysis  
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