

THE EVALUATION OF AN ONLINE LEARNING ENVIRONMENT FOR FACILITATING STATISTICS LEARNING

Jenny Freeman, Martine Delbauve, Emma Sutton, Elouise Thompson
University of Sheffield
j.v.freeman@sheffield.ac.uk

CONTEXT

The use of the internet and online learning has increased dramatically in Higher Education in the past few years. However, little is currently known of the benefits, particularly in statistics, a subject that students often find challenging. We present the results of the development and evaluation of an interactive online learning resource at our institution.

METHODOLOGY

An online learning resource was introduced at the start of 2008-09 academic year to aid medical statistics teaching. It was accessible to all students undergoing tuition at this time. The resource was evaluated using a questionnaire distributed to the whole cohort and three focus groups, one with students who had access to it during teaching and two with students from earlier cohorts who had not had access to it during their teaching. In addition to comparing between those students who accessed the resource and those who did not, the questionnaire results were compared with a previous cohort who had not had access to it for their teaching.

RESULTS

Questionnaire results showed that about half of the cohort used the resource and it was more popular with those with lower prior knowledge. Students were better able to describe key concepts (P-value and confidence interval) than earlier cohorts who had not had access. The main reason it was used was to aid understanding after classes. Students liked the opportunity to review and consolidate learning after face-to-face sessions and ability to learn in their own time, at their own pace. When compared to the previous cohort, the students with access were better able to define key statistical concepts. There was concern amongst focus group participants that the resource could be used to replace face-to-face teaching and all expressed a lack of enthusiasm for this. They felt that an online resource was good as a supplementary learning and teaching aid, but it should not replace contact teaching. Those who had not had access to it during their teaching were more positive about its benefits than those who had access.

CONCLUSIONS

An online learning resource is an excellent way to encourage students to engage with their statistics education and offers great benefits particularly for students with a lower level of initial knowledge. Whilst students were positive about the resource they did not feel that it should be used as a replacement for face-to-face teaching, but should instead be used as an adjunct., to facilitate learning beyond the classroom.