

STUDENT RESPONSES TO DELIVERY MODES IN A LARGE FIRST YEAR MATHEMATICS UNIT

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BACKGROUND

Many higher education providers now routinely capture all lectures in a unit and make these recordings available through Learning Management Systems to students enrolled in the unit. This practice has led to student expectations that recorded lectures will be available in most, if not all, of their units. Within mathematics the question arises as to which delivery mode for lectures will contribute best to student learning in this environment.

AIMS

The aim of this study was to compare two different delivery modes for a large first year mathematics unit. We wanted to discover whether there was a student preference for the style of lecture captured and the reasons for those preferences. We were also interested in the students' perception of the value of different methods of delivery.

DESCRIPTION OF INTERVENTION

The unit was taught by two staff with one staff member using a tablet PC to deliver lectures and the other using slides who also made use of a bench camera to digitally transmit some additional worked examples.

DESIGN AND METHODS

This study is part of a larger research project looking at the effectiveness of online lectures in a tertiary mathematics setting. The project employs questionnaires and interviews with students studying a pre-service mathematics unit for intending primary teachers. Together with examining entire class records, we conducted online surveys at the end of semester. There were 384 students enrolled in the unit with 75 responding to the online survey. The questions that will be discussed included a number of statements with Likert responses and some open-ended questions.

RESULTS

On the whole, students expressed a preference for the lectures delivered using the tablet PC with some important qualifications. The reasons for this preference were mainly due to the ability of the students to engage with the arguments and processes as they were discussed.

CONCLUSIONS

With the increasing use of lecture capture, serious consideration needs to be given to the type of lecture delivery that will lead to the best learning outcomes for students which may vary from discipline to discipline. While the participants in this study were pre service primary teachers, the reasons they gave for preferring for the tablet PC lectures would be valid in any large first year mathematics lecture.

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