Boost student interest through tailored lesson activities in a blended learning curriculum

CONTEXT

The pre-master course's quantitative methods runs for five weeks, and a post-assessment course takes in a total of 15 groups of between 25-30 students over the year. The course is delivered by Mark Cramer and Dr. Tim de Leeuw at TIAS School of Business and Society. The strategy of the school called for a sustainable integration of online and blended education, with assessed materials courses being redesigned.

As a result of these changes, instructors sought a way to gain insights into student performance and to be able to differentiate it. For these reasons, the Interactive Document tool was integrated into the courses within Canvas, both in combining assignments with more interactively and receiving detailed analytics on learner progress.

CONSTRUCTIVE ALIGNMENT

LEARNING OBJECTIVES

- Students are able to understand, evaluate, and apply basic quantitative concepts and techniques, understand and visualize quantitative data, explain relationships between variables, conduct analyses, and critically evaluate (e.g., in terms of statistics)

LEARNING ACTIVITIES

- Interactive Document is commonly used to guide students through a tool within the course, comments, and discussions. In this course, however, it is used to support the teacher time and support student self-regulation by creating learning analytics detailing how students used the various options for assignments.
- Three assignments: One covers assignments with basic statistical analysis in SPSS, each containing 10 related questions and problems. After completing these, homework assignments, students used Interactive Document to access the document with the exercises, and were asked to select the correctness of their own answers, in comparison to those found in the detailed step-by-step answer sheets. Self-reporting took the form of answering multiple-choice questions for each problem according to a 3-point scale (correct, partially correct, or incorrect).

- The reliability of data on students' self-evaluations allowed the instructor to apply a more tailored approach in the course's lessons, where assignments were covered and students were assessing correctly for the first 5 questions, for example, were not required to be available for the last part of the lessons; on the other hand, where more students reported problems with particular questions, the instructor was able to devote more time to that area.

- A formative feedback gauge is included for each assignment as a way of indicating active participation, rather than just those who get the grade.

Learning activities, according to Brain's Taxonomy, were mainly at the level of:

- Retrieval
- Understanding
- Application
- Analysis
- Synthesis
- Evaluation
- Creation

ASSESSMENT OF LEARNING OUTCOMES

FeedbackFruits tools were used to offer formative assessment, providing insights into the self-evaluation of all students individually as well as collectively. The summative portion of the course took the form of a final exam consisting of 100% of the grade.

Mark the, Instructional Designer of TIAS School of Business and Society

"Students get more autonomy over their learning, and teaching is made as effective as possible."

Notable outcomes:

- The most noticeable difference after incorporating Interactive Study Materials was the time used in analyzing and processing student performance. The overburden student analytic data was found to be useful in assessing student's update of materials.
- Data gathered from student self-evaluations allowed the instructor to carry out a tailored approach to lessons, where the pertinent questions would be addressed.
- Students autonomy over their learning process was increased as they were given more opportunity to self-report their encounter with materials, as well as identify and address areas where feedback was required or where no feedback was required.

The instructor is able to guide student performance, self-reporting of skills and knowledge, and progress with the assignment within the Interactive Study Materials interface.

- At the end of the course data is downloaded in a spreadsheet for further analysis.

Additional value of technology:

- Integrated into Canvas, Interactive Study Materials provides comprehensive insights into student performance of individual, group, and class-levels levels. This data allows for analysis and the identification of course material according to various student needs.