NANYANG TECHNOLOGICAL UNIVERSITY

Nanyang Business School

Teaching and Learning with Digital Course Solution

Lau Yin Kheng

Rony Lim

Liu Na

Presentation Outline

- Literature review
- Concerns Addressed by Digital Course Solution
- Methodology
- Findings
- Areas for Further Research

Introductory Accounting: Literature Review

- *Students in doing introductory accounting course tend to be surface learners who "see the task of learning as externally imposed"*

- *Their aim is primarily to "memorise or reproduce material" rather than to "integrate topics into a coherent whole"*

- Lucas. U (2001). Deep and Surface Approaches to Learning within Introductory Accounting: A Phenomenographic Study. *Accounting Education 10(2)*, 161-184.

Concerns addressed by Digital Course Solution

- How to raise students' interest to do well in the course?

- How to utilise class time better without spending time on repetitive work problems?

Implementation of Digital Course Solution

☐ **Before**

- ☐ Tutorials
- ☐ Group project assignment
- ☐ Manually graded
- ☐ Time consuming for students
- ☐ Difficult to measure individual student performance

☐ **Digital Course Solution**

- ☐ Removed group project assignment
- ☐ Introduced individual compulsory/ self-practice online assignments and online quizzes

Digital Course Solution:
Platform for blended learning

Advantages of blended learning

- Offers various learning channels which help to elicit their motivation, as learners have different preferred delivery format (Lim & Morris, 2009)

  - Lim, D.H., & Morris, M.L. (2009). Learner and Instructional Factors Influencing Learning Outcomes within a Blended Learning Environment. *Educational Technology & Society, 12(4)*, 282-293.

- Offers instructors the flexibility to use online resources. Enables instructors to spend time more efficiently (Oh & Park, 2009)

  - Oh, E., & Park,S. (2009). How are Universities involved in Blended Instruction? *Educational Technology & Society, 12(3)*, 327-342

Methodology

(1) Surveyed students on the use of Connect in Oct 2014

- 8 main questions to capture student perceptions about digital solution
- Responses converted to Likert scale system (1: Strongly Disagree, 5:Strongly Agree)

(2) Compared test grades between pre-adoption and post-adoption period of Connect

(3) Interviewed instructors

Findings (1a): Positive Feedback on Use of Digital Course Solution

Survey Results from 256 current BU8101 students

Increased students' confidence in the course — 91%

Percentage of students who strongly agree or agree with the respective statement

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Findings (1b): Suggested Improvements in Digital Course Solution

Survey Results from 256 current BU8101 students

Encouraged engagement in the course ▮▮▮▮▮▮▮▮▮▮ 82%

Percentage of students who strongly agree or agree with the respective statement
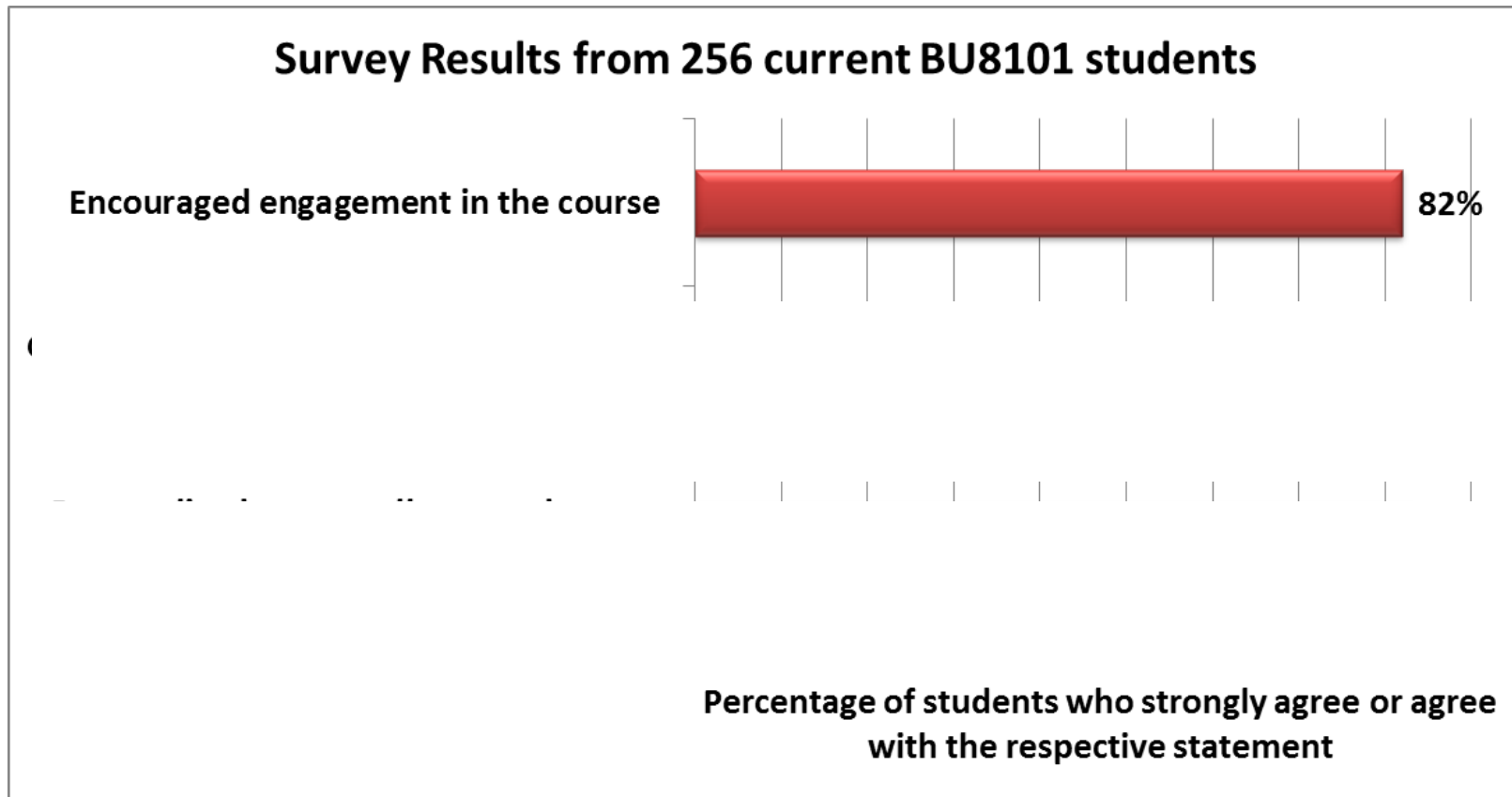
- Engagement: More attractive interface & improved accessibility via mobile devices

- Better link between study materials & question bank

- Personalised reports: Utilise learning objectives. Better benchmarking capability

Findings (2): Grades pre & post adoption of Digital Course Solution

Increase in marks after adopting Digital Course Solution

- 11 Marks (Exam Average)
- 5 Marks (Quiz Average)

Increase in Marks

Increase in Students Getting Respective Grades in Exam

- As and Bs: +17%
- Cs and below: -17%
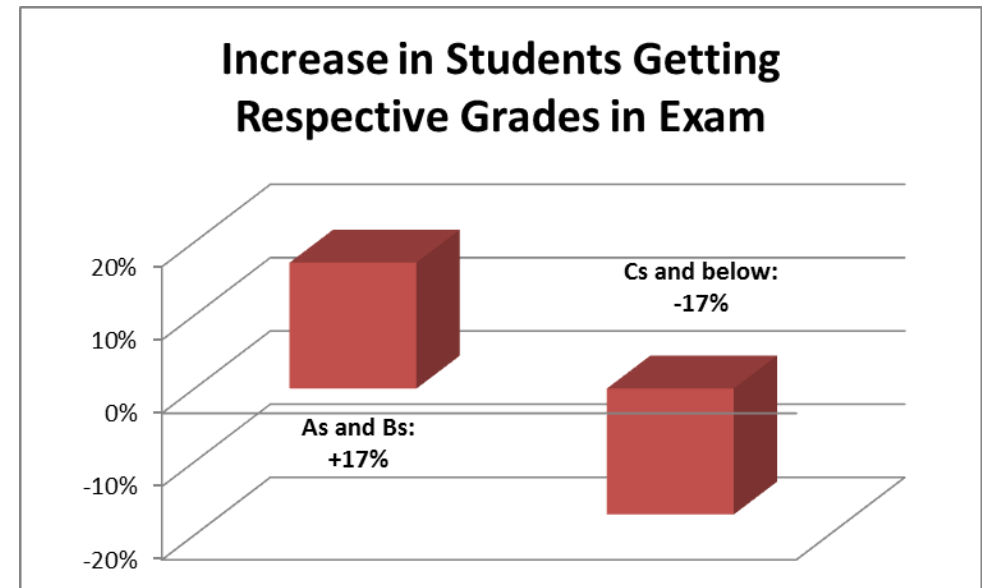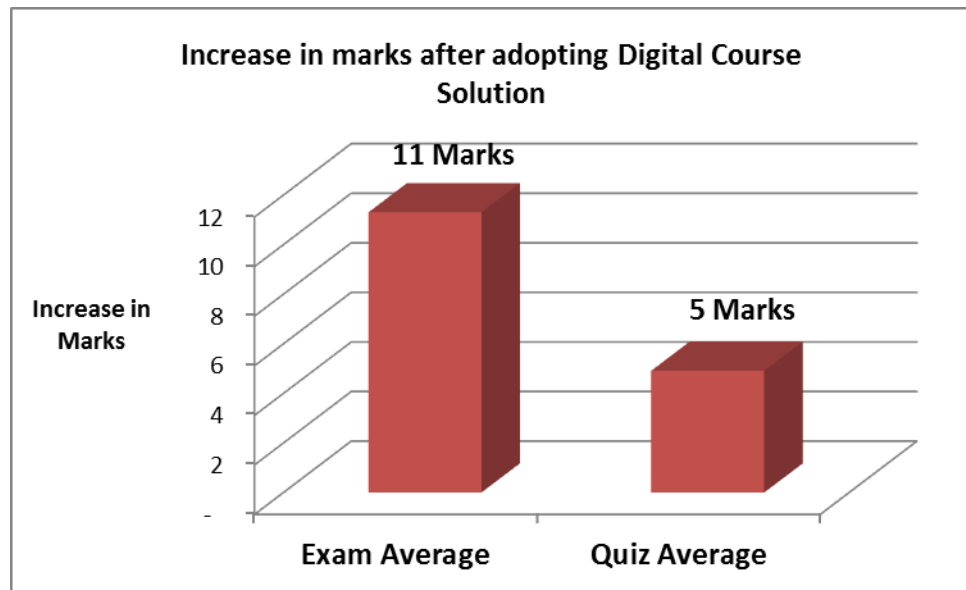
Findings (3): Interviews with Instructors: Teaching Enhancements

- Platform to share course materials among teaching staff
- More time in class to discuss interesting case studies and involve class in engaging activities
- Saved instructors much time to focus on improving the course

Areas for further research

- Effectiveness of learning analytics to identify areas where students need help

- Whether other accompanying digital technology tools, such as flashcards, enhance student engagement and performance

- Whether such digital solutions can be used for formal assessments

Now It's Time to Say
Thank You ....

Any questions?