

Active Learning in Accounting: The Role of Digital Learning Resource to Foster Student Engagement

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Teaching interests:

- **Undergraduate – Accounting for Entrepreneurs** (Core Curriculum module – Capabilities Pillar), **Overseas Project Experience (Accounting in Asia)** (clear Asian studies, Overseas requirement), **Valuation** (core module for SOA Students, starting from AY22/23 onwards)
- The first two modules are SMU-X modules
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☐ Motivation in creating the DLR:

- To support SMU's Blended Learning Initiative, *encouraging active personalized learning*, and teach FSA in *an interactive and engaging way*
- Reserve class time for *"higher-level"* learning, such as discussion of a case study
- Contribute towards SOA's culture of teaching innovations

☐ Process:

- Applied for the SMU Technology-Enhanced Learning (TEL) Grant in Dec 2020 and it was approved in Feb 2021
- Feb-May 2021 – discussion with CTE and Vendor on the storyboard as well as content of the tool
- June-Aug 2021 – revision on the tool until it was ready to be launched
- Oct-Nov 2021 – first implementation in COR1307 (Accounting for Entrepreneurs)
- March 2022 – second implementation

- ❑ Link to the tool: <https://apps.cte.smu.edu.sg/financial-statement>
- ❑ Students can access anywhere, anytime at ***their own pace and convenience***; and review the material at ***their own desired speed***
- ❑ Application to ***a case study*** (Adidas)
- ❑ Interactive exercises with immediate feedback



Financial Statement Analysis

Adidas
Comparative income statements
For the year ending on December 31, 2014 and December 31, 2013

(in EUR millions)	2013	2014
Net sales	14,203	14,534
Net income	787	490

Profit margin = $\frac{\text{Net income}}{\text{Net sales}}$

Interactive calculation area:

- Net income
- Net sales
- Select here
- Select here

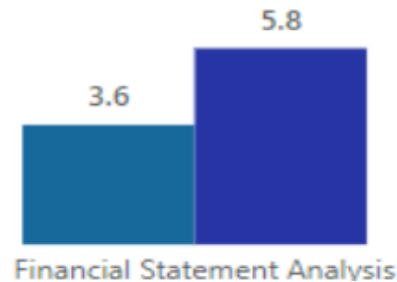
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Measuring Learning Effectiveness: Knowledge before and after using the DLR - Financial Statement Analysis Learning Object

4. 61 students rated their perceived knowledge about the course content using a 7-point Likert scale (1 = Very Low to 7 = Very High). They reported an increase in perceived knowledge after using the DLR ($M = 5.84$, $SD = 0.89$) versus before using it ($M = 3.56$, $SD = 1.78$).
5. A paired-samples t-test was conducted to compare both sets of ratings and the results showed a statistically significant difference, $t(60) = 11.246$, $p < .0005$. This suggests that the Financial Statement Analysis Learning Object was **effective in improving students' knowledge about the content**.

Avg Knowledge Before and After DLR use

● Knowledge Before ● Knowledge After



PANEL A: Measuring Learning Effectiveness of the Digital Learning Resource

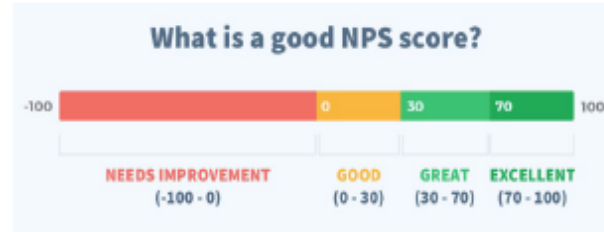
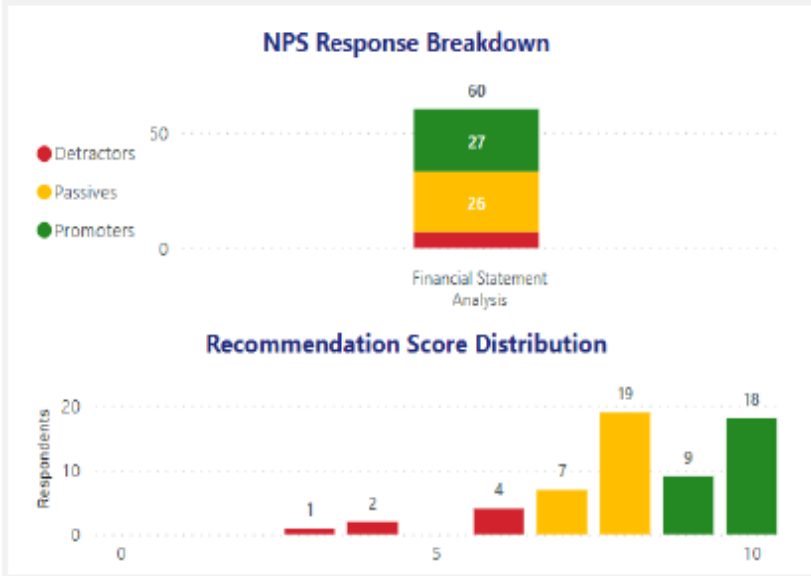
Questions ^a	Mean (N = 60)	Standard Deviation
1. The DLR was aligned to the lesson/course learning objective.	6.25	0.76
2. The DLR was well-organized.	6.34	0.72
3. The DLR provided useful content.	6.36	0.75
4. The content in the DLR was correct and adequately fulfilled my learning requirements.	6.25	0.74
5. The content in the DLR improved my understanding of the topic	6.25	0.78
6. The DLR made learning engaging.	5.79	1.29
7. I would like to use the DLR again.	5.90	1.25
8. The DLR allowed me to apply the concepts learned to practical, real world problems.	5.79	1.09
9. The DLR required me to integrate ideas and information from various sources.	5.70	1.18
10. The DLR allowed me to learn at my own pace.	6.23	0.91
11. The DLR provided me with timely feedback for my learning.	5.98	1.09
12. The DLR enabled me to control my learning progress.	6.12	0.88

a. Survey scale: 1 = strongly disagree; 2 = disagree; 3 = slightly agree; 4 = neutral; 5 = slightly agree; 6 = agree; and 7 = strongly agree

Last Semester:

Net Promoter Score (NPS)

12. A positive NPS (> 0) is generally considered as good. Financial Statement Analysis Learning Object's net promoter score* is **34 (Great)**, suggesting that the students were likely to recommend it to their peers.



Notes:

- Net promoter score is an index ranging from -100 to 100 that measures the willingness of students to recommend a learning activity or intervention to others. It is used as a proxy for gauging the student's overall satisfaction with the learning activity.
- Net promoter score is computed by the percentage of promoters minus the percentage of detractors

This semester:

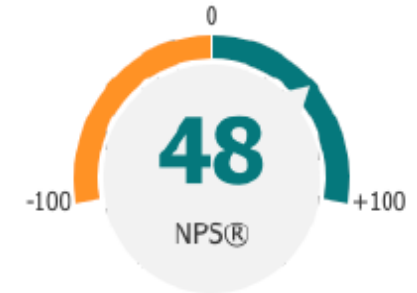


TABLE 2 – Selected Students' Comments on the Digital Learning Object

"I enjoyed the DLR because it helped me better understand the content before coming into the class, through the clear organized structure and video."

"The DLR has a practice component where we had to pick up the correct answers. I feel that this helped me to cement my knowledge."

"It provided examples which is the case study of Adidas, as well as short exercises to apply what I have learnt."

"It explains the topic very clearly with the detailed explanation of the terms, in a progressive manner."

"It helped me create a clear mind-map of financial statement analysis as a topic."

"I like how interactive the DLR was - with clear visualization of content, diagrams that are easy to follow, well-paced and animations to help register the material."

"The interactive exercise for the Adidas case study makes the learning more immersive."

"It is intuitive and not much learning curve. It is also short and sweet (around 1 hour) to capture the attention."

"By having well-organized information readily available for viewing, it allowed me to replay the parts I missed."

"Allows me to learn and review whenever I want (can learn at my own pace) and engaging too. It is also adjustable for the pace we are comfortable with (0.75x speed to 1.25x speed)."

CONCLUSIONS

- My experience in designing online digital learning resource (DLR) on FSA
- Students' Feedback on the DLR

