Assessing the Impact of Video Assignments on Finance Learning:

From Passive to Active Learning

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Introduction

- Course: FIN 3030 (Business Finance)
  - Upper Division BSBA Core
- Topic: Time Value of Money (TVM)
  - Foundation for advanced courses
  - Students struggle with TVM
- Assessment Design
  - Student created video (screen recording)
  - Encouraging active learning

Learning Objectives

- BSBA LOs
  - 1.4 Demonstrate knowledge and understanding at a basic level of concepts and tools in finance
  - 3.1 (Communication Skills) Skill in presenting information in a well-organized manner both orally and in writing.
  - 3.2 (Technology Agility) Skill in identifying and incorporating appropriate technologies to solve practical business problems.

Methodology

- Two FIN 3030 sections in Spring 2025
- Instruction and assessment sequence



- Student video example

Evaluation Criteria

- Exam
  - One hour of problem-solving questions
  - 100 points
- Video
  - Rubric adapted from the AAC&U Quantitative Literacy VALUE Rubric, focus on
    - Interpretation
    - Representation
    - Calculation
    - Communication

Criteria	Ratings				Pts
Interpretation Ability to explain TVM concepts and calculations accurately.	**1 pts** **Capstone Proficiency** Clearly explains TVM concepts and calculations with accurate use of formulas and financial calculator inputs.	**0.8 pts** **Proficient** Explanation is mostly clear with minor errors or missing details in formulas or calculator inputs.	**0.5 pts** **Approaching Proficiency** Shows some understanding but contains noticeable errors or lacks clarity in explaining key concepts.	**0.2 pts** **Not Proficient** Explanation is unclear, incorrect, or lacks proper use of formulas and calculator inputs.	1 pts
Representation Ability to translate problems into appropriate TVM concepts (e.g., timelines, formulas).	**1 pts** **Capstone Proficiency** Uses appropriate mathematical forms such as timelines or formulas accurately to represent TVM problems.	**0.8 pts** **Proficient** Uses correct representations but with minor inaccuracies or omissions.	**0.5 pts** **Approaching Proficiency** Attempts to represent problems mathematically but contains significant errors or missing components.	**0.2 pts** **Not Proficient** Fails to use appropriate representations or presents incorrect/incomplete visuals.	1 pts
Calculation Accuracy in using the financial calculator to solve TVM problems.	**2 pts** **Capstone Proficiency** Correctly applies TVM formulas and financial calculator inputs, leading to an accurate final answer. Shows a strong understanding of key steps, including careful attention to signs (positive/negative cash flows), correct use of N (number of periods), and selecting the appropriate interest rate.	**1.6 pts** **Proficient** Mostly correct calculations but may contain minor input errors. Lacks emphasis of caution with signs (positive/negative cash flows)	**1 pts** **Approaching Proficiency** Demonstrates an attempt to use the calculator but includes significant errors.	**0.4 pts** **Not Proficient** Incorrect calculations, incorrect use of financial calculator, or no attempt to solve.	2 pts
Communication Clarity, organization, and effectiveness of the presentation.	**2 pts** **Capstone Proficiency** Well-structured, engaging presentation with clear speech, logical flow, and effective visual aids.	**1.6 pts** **Proficient** Presentation is mostly clear and organized but may lack engagement or minor structural elements.	**1 pts** **Approaching Proficiency** Somewhat disorganized, with unclear explanations or ineffective use of visuals	**0.4 pts** **Not Proficient** Poorly structured, unclear speech, and lacks organization or visual support.	2 pts
					Total Points: 6

Results: Overall Performance

Exam average score by class section

Class	Exam 1	Exam 2	Change
Class 1 (FIN3030-10)	64.6	69.0	+4.4
Class 2 (FIN3030-11)	64.4	70.7	+6.3
Both classes	64.5	69.8	+5.3

Results: Key Insight

- Video group: +8.2 (significant)
- Non-video group: +2.6 (not significant)

Exam average score by video assignment completion

Video Assignment Completion	Exam 1 Avg.	Exam 2 Avg.	Change (p-value)
No (n=7)	64	66.6	+2.6 (p=0.559)
Yes (n= 54)	65.4	73.6	+8.2 (p=0.0013)
Total (n=61)	65.2	72.8	+7.6 (p=0.0010)

Conclusions

- Video assignments are effective
- Improve application & communication
- Support learning goals
- Future Actions
  - Replace some traditional assignments
  - Expand to other topics/courses
  - Student video example FIN 3250