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Innovative Learning Through Accounting Transaction Simulations in Improving Critical Thinking Skill

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Abstract: *This article investigates the effectiveness of Accounting Transaction Simulations (AccTranS) in enhancing critical thinking skills among accounting students. With the increasing demand for innovative teaching methods in higher education, traditional approaches may not fully equip students with the necessary analytical skills to navigate complex accounting processes. AccTranS, a digital simulation tool, offers a dynamic learning experience that integrates real-world scenarios to foster critical thinking. The study addresses the problem of limited critical thinking development in conventional accounting education and explores the potential of simulations to bridge this gap. Method: This study employs a quantitative research approach, gathering data from accounting students through a Likert scale survey to assess the effectiveness of AccTranS. Result: The result shows that most of the students rated the simulation positively in improving their critical thinking skill and considered it as a valuable addition to their class. However, a small percentage of students expressed neutral or negative views, highlighting potential areas for improvement. Implication: This paper contributes to the growing body of knowledge on the intersection of digital education tools and sustainable business education. The study concludes that AccTranS is a beneficial tool for enhancing critical thinking, although its effectiveness may vary based on individual learning preferences. Further research is recommended to address the limitations and improve the implementation of simulations in accounting education.*

Keyword: Accounting, Transaction, Simulation

INTRODUCTION

The evolution of educational methodologies has become a necessity in accounting education, driven by the increasing complexity of the profession and the demand for higher-order thinking skills. Traditional methods, such as lectures and textbook exercises, may not adequately prepare students for the analytical challenges they will face in their careers (Lucena-Anton et al., 2022). Therefore, the introduction of innovative tools like Accounting Transaction Simulations (AccTranS) provides opportunities for more dynamic and interactive learning environments. These simulations aim to improve critical thinking by allowing students to engage with realistic financial transactions, making the learning process more practical and applicable to real-world scenarios (Amin et al., 2020; Anggraeni et al., 2023; Sari et al., 2021). A key issue in accounting education today is the difficulty of fostering critical thinking skills through conventional pedagogical approaches. Critical Thinking skills are one of the important skills needed by students and graduates in higher education (Melhem & Isa, 2013; van Peppen et al., 2018). Although theoretical knowledge is essential, it is often insufficient to develop the analytical capabilities required in professional practice. Previous research has indicated that digital simulations, can offer valuable learning experiences (Joshi & Koirala, 2023). However, there remains a gap in understanding how effectively simulation tools can cultivate critical thinking specifically within accounting education. The current study seeks to fill this gap by examining the role of AccTranS in improving critical thinking skills among accounting students.

The main objective of this research is to investigate the impact of AccTranS on students' critical thinking abilities. By integrating this simulation into the teaching and learning process, the study aims to assess whether students can better grasp complex accounting concepts and apply critical thinking in their decision-making processes. Additionally, it seeks to determine whether the use of AccTranS enhances the overall learning experience compared to traditional teaching methods. The research is guided by the following questions: (1) To what extent does the use of AccTranS improve students' critical thinking skills in accounting? (2) How do students perceive the effectiveness of AccTranS in comparison to conventional teaching methods? These questions will provide an answer to the objective of this study and evaluate the benefits and potential drawbacks of integrating simulations into accounting education.

METHOD

This research adopts a quantitative methodology to investigate the effectiveness of AccTranS in teaching accounting students. The study was conducted at a public university, where 56 undergraduate accounting students who had used AccTranS in their coursework were selected as participants. Data collection was carried out through an online survey, consisting of structured questions designed to gauge students' perceptions of AccTranS. The survey focused on two key areas: whether students perceived the simulation to be a valuable addition to class and whether the simulation has helped students to think critically. Responses were measured using a Five Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Data for this study was analysed using SPSS software, employing descriptive statistics

RESULTS AND DISCUSSION

The first question of this study aimed to assess whether students considered the simulation a valuable addition to their class. Based on Figure 1, a significant majority of students provided positive feedback. Out of the 56 respondents, 64% rated strongly agree (5) when using the simulation, indicating that they found it highly beneficial. While 23% of the students gave a rating

of 4, suggesting a favourable but slightly less enthusiastic view. A smaller number of students, four (7%), rated it as neutral with a score of 3, while only two students (4%) assigned a score of 2, and one student (2%) gave it the lowest score of 1. These findings show that most of the respondents had a favourable opinion of the simulation tool and were strongly support of using this simulation in their educational process.

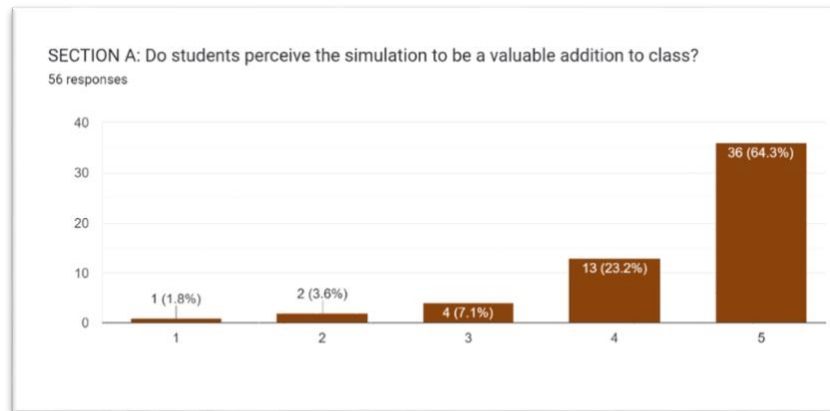


Figure 1. Valuation addition to Class

The second question focused on whether the simulation helped students develop critical thinking skills. The responses similarly indicated a favourable outcome. Based on Figure 2, from the 56 students surveyed, 57% (32 students) rated their experience with a 5, suggesting that the simulation significantly enhanced their critical thinking abilities. Additionally, 15 students (27%) rated it with a 4, showing that they believed the simulation contributed to their critical thinking but perhaps not as strongly as the top rating. However, 13% of students rated the simulation's impact on critical thinking with a 3, indicating a neutral stance, while only one student (2%) gave it a score of 2, and one other student (2%) rated it with the lowest score of 1. These findings reflect that most students found the simulation to be an effective tool for fostering their critical thinking in their learning process.

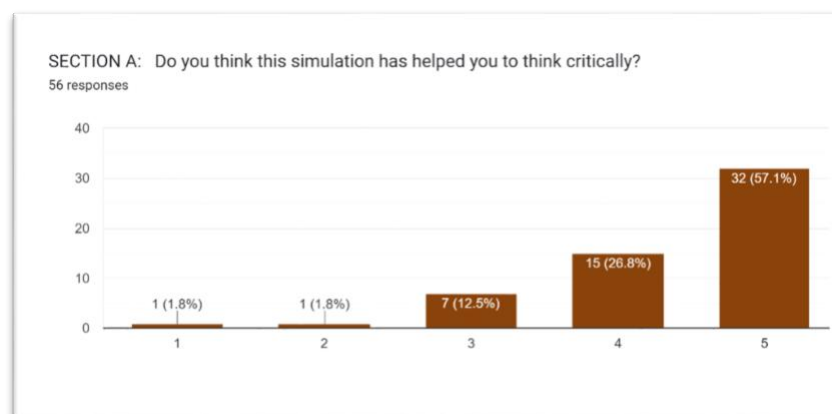


Figure 1. Simulation Help Think Critically

Thus, by comparing the responses from both questions, it is evident that students generally perceived the simulation as both valuable for their overall learning and helpful in improving their critical thinking skills. The high proportion of students who rated the simulation as effective for various learning outcomes (5 and 4) in both categories indicates that this innovation in the teaching process was well-received in their education. Thus, it can be said that the simulation can help

students in terms of how well it improves their comprehension of the subject matter and how well it improves their critical thinking abilities. The existence of some neutral and lower scores indicates that some students did not think the simulation had the same impact, either because of personal preferences for learning or unfamiliarity with the simulation's format. However, the results generally indicate that using simulations in accounting classes might be a useful teaching strategy.

CONCLUSION

The findings indicate that the simulation was largely regarded as a valuable educational tool, with most students reporting a positive impact on their learning and critical thinking skills. The majority rated the simulation highly, suggesting that it enhanced their understanding of accounting concepts and provided practical, real-world applications. A small number of neutral and lower ratings point to some variability in how students perceived its effectiveness, which may be attributed to individual learning preferences. The simulation played a significant role in developing critical thinking abilities, as evidenced by the favorable ratings in this area. The consistently positive feedback in both categories emphasizes the value of integrating simulations into accounting education to foster greater cognitive skills and better prepare students for professional challenges. Despite the generally positive results, some limitations should be considered. The study relied on self-reported data from students, which may introduce subjectivity or bias into the responses. Furthermore, the use of a single class sample may limit the generalizability of the findings to other student groups or disciplines. Additional research is needed to explore these limitations and examine how different factors, such as prior knowledge or learning preferences, may influence the effectiveness of simulations in education. Further research also could explore the reasons behind the lower ratings to improve the design and implementation of simulations in future classes.

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