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Digital vs. Face-to-Face learning in Accounting education: Analyzing student preferences and academic outcomes in an Eastern Cape University

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ABSTRACT

This study investigates the effectiveness of digital versus face-to-face learning in accounting education at a South African university. The purpose is to explore how preferences, experiences, and academic outcomes of students vary between these two teaching methods, focusing on engagement, comprehension, and performance. A qualitative research design was used, employing semi-structured interviews with accounting students to take diverse perspectives on learning effectiveness and adaptability. The findings indicate that while online learning offers significant flexibility and encourages self-directed learning, many students faced challenges, such as limited digital literacy, inconsistent internet access, and reduced interpersonal interaction. On the other hand, face-to-face instruction promoted stronger social connections and provided immediate feedback, but it lacked the convenience and autonomy that online platforms offered. The study recommends adopting a blended learning model that combines online and traditional methods, supported by enhanced digital infrastructure, targeted training, and ongoing student support. This research contributes to the growing body of knowledge on technology-enhanced learning by offering empirical insights from a developing country context. It highlights how socio-economic inequalities affect online learning outcomes and emphasizes the need for inclusive and context-sensitive teaching strategies to ensure equitable and effective accounting education in the digital age.

Keywords: Digital Learning, Face-to-face Learning, Academic, Preference

INTRODUCTION

The increasing incorporation of digital learning technologies into higher education has significantly transformed the traditional classroom experience, particularly accounting education. Digital learning includes a diverse range of tools and methods, such as online learning platforms, virtual classrooms, and blended learning strategies that combine conventional and digital teaching .[1] These advancements provide exceptional flexibility and accessibility, enabling students to customize their learning experiences to accommodate their personal needs and schedules. In contrast, traditional in-person

[1] Mamdouh Alenezi, "Digital Learning and Digital Institution in Higher Education," *Education Sciences* 13, no. 1 (2023): 88.

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learning environments foster direct interaction between instructors and learners, improving engagement and encourages a more organized and collaborative educational setting. As universities in the Eastern Cape adapt to the evolving teaching landscape, understanding student preferences and educational outcomes about digital and traditional learning approaches becomes essential. This study provides a thorough analysis of these two educational methods to assess their relative effects on student success and overall learning experience in accounting education.

Despite the acknowledged advantages of digital learning, such as greater accessibility, adaptability, and the promotion of self-directed study, scholarly discourse raises important questions regarding its overall effectiveness compared to in-person instruction. Alshurafat, Beattie and Sands state that "accounting education presents mixed findings regarding which mode of delivery more effectively supports cognitive comprehension, student engagement, and essential skill development, especially in subjects that demand practical, hands-on application".[2] A study by Khanduri and Teotia touts digital learning as a catalyst for fostering independent study habits and improving efficiency in learning while others contend that in-person educational interactions cultivate a deeper conceptual grasp of complex accounting principles and enhance practical application capabilities.[3] However, there is a noticeable scarcity of research focusing on Eastern Cape universities. Their socio-economic dynamics, infrastructure variations, and resource availability may distinctly shape student preferences for either mode of learning.

This study seeks to fill these academic gaps by providing contextually relevant insights into the experiences and preferences of students, as well as the academic performance associated with each instructional model. The central research problem is to determine which learning mode, between digital or face-to-face, offers more robust support for accounting academic success of students within the unique setting of Eastern Cape universities. Gaining a better understanding of these preferences and their subsequent outcomes is essential for educational institutions to refine their instructional strategies and improve student performance. Furthermore, this study aims to reveal whether digital learning genuinely enhances student engagement and comprehension or if traditional in-person instruction remains the most effective means of facilitating skill acquisition in the realm of accounting education.

The objectives of this research are to methodically compare student preferences and academic outcomes between digital and face-to-face learning models, specifically within the accounting programs of an Eastern Cape university. The guiding questions for this study include: (1) Which instructional approach do students favor, and what are their rationale behind this preference? (2) In what ways do academic outcomes vary between digital and traditional learning environments? (3) What institutional factors play a role in influencing student success in these different educational contexts? Moreover, the study posits the hypothesis that student preferences have a substantial impact on academic performance, suggesting that certain learning approaches may align more closely with effective content mastery. By delving into these critical dynamics, the research will contribute valuable insights that can inform curriculum design and influence pedagogical strategies within accounting education, ultimately fostering improved educational outcomes.

LITERATURE REVIEW

Conceptual Framework

The Technology Acceptance Model (TAM), originally developed by Davis, has been widely used to understand user adoption of technology, particularly in educational contexts.[4] In recent years, researchers have refined TAM to examine student preferences for digital versus face-to-face learning in higher education. TAM primarily focuses on two key factors: perceived usefulness (PU), the degree to which students believe digital learning enhances their academic performance and perceived ease of

[2] Hashem Alshurafat et al., "Perceptions of the Usefulness of Various Teaching Methods in Forensic Accounting Education," *Accounting Education* 29, no. 2 (March 3, 2020): 177–204, https://doi.org/10.1080/09639284.2020.1719425.

[3] Varunni Khanduri and Dr Ankur Teotia, "Revolutionizing Learning: An Exploratory Study on the Impact of Technology-Enhanced Learning Using Digital Learning Platforms and AI Tools on the Study Habits of University Students through Focus Group Discussions," *International Journal of Research Publication and Reviews* 4, no. 6 (2023): 663–72.

[4] Fred D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly* 13, no. 3 (1989): 320.

use (PEU), how easy they find interacting with digital platforms. Studies such as those by Al-Emran & Shaalan have demonstrated the relevance in assessing digital learning in the adoption of TAM, particularly in accounting education, where technological tools have increasingly influenced pedagogical methods.[5] Further, Rosli et al. explored TAM's application during the COVID-19 pandemic, highlighting how factors, such as self-efficacy and institutional support shaped students' willingness to engage in online learning.[6] Additionally, Kelly et al. examined the role of the model the adoption ofartificial intelligence, indicating that students' behavioral intentions (BI) toward learning technology are significantly shaped by usability and perceived benefits.[7] In the context of an Eastern Cape university, integrating TAM can provide insight into how students navigate the transition between traditional classroom learning and digital platforms, considering aspects such as familiarity, accessibility, and academic outcomes.

Empirical literature

Students' attitudes toward e-learning using the Technology Acceptance Model in Jorda and discovered no correlation between prior Accounting knowledge and perceptions of blended learning.[8] However, they noted that while initial positive perceptions of blended learning were associated with prior computer experience, this correlation decreased at the end of the semester. Grabinski, Krasodomska and Herdan investigated factors influencing students' overall assessment of blended learning and their perceptions of three blended Accounting courses in Poland, and concluded that students generally perceive blended learning positively.[9] During the COVID-19 pandemic .Alanzi (2023) investigated Indonesian Accounting students' perceptions of their online extensive reading. They found that students responded positively to the use of extensive reading in online learning. Likewise, Howshigan and Nadesan examined Accounting students' perceptions of online learning in Sri Lanka and found that students were satisfied with online learning.[10] However, they preferred face-to-face learning more because they were used to the traditional way of learning. Concerning the socio-emotional aspect of social interaction, the absence of casual conversations and non-task-related interactions resulted in many teams feeling less socially connected, indicating a decline in the social dynamics present before the transition.[11] Additionally, learners reported feeling more disconnected and detached in the virtual environment, further diminishing the sense of social space.[12]

Online learning has often been perceived as less interactive than face-to-face education, mainly due to decreased social presence, limited interactions among students, and lower overall satisfaction levels. However, it is often promoted for its affordability and convenience, providing learners with more education opportunities.[13] During the COVID-19 pandemic, education shifted to distance learning through digital platforms. A study by Nalini et al. used a paired sample test to compare the learning outcomes of two groups (one learning online and the other traditionally), revealing significant differences in favor of online learning, which was seen to be more effective in fostering a deeper and

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[5] Mostafa Al-Emran and Khaled Shaalan, *Recent Advances in Technology Acceptance Models and Theories* (Springer, 2021).

[6] Mohd Shafie Rosli et al., "A Systematic Review of the Technology Acceptance Model for the Sustainability of Higher Education during the COVID-19 Pandemic and Identified Research Gaps," *Sustainability* 14, no. 18 (2022): 11389.

[7] H. Kelly, L.A. Zou, and A. Salem, *Real-World Evidence in a Patient-Centric Digital Era* (Taylor & Francis, 2023).

[8] Joshua D. Nosanchuk et al., "Low-Dose Antibiotics: Current Status and Outlook for the Future," *Frontiers in Microbiology* 5 (September 10, 2014), https://doi.org/10.3389/fmicb.2014.00478.

[9] Konrad Grabinski et al., "Embedding E-Learning in Accounting Modules: The Educators' Perspective," *Education Sciences* 10, no. 4 (April 6, 2020): 97, https://doi.org/10.3390/educsci10040097.

[10] Shamini Howshigan and Thevanes Nadesan, "Students' Perceptions of Online Learning and Teaching during COVID-19 Pandemic: An Empirical Study in Selected University in Sri Lanka," *Asian Journal of Economics, Business and Accounting*, June 25, 2021, 50–57, https://doi.org/10.9734/ajeba/2021/v21i830411.

[11] Nor Idayu Azmi et al., "A Systematic Literature Review on Impact and Challenges in the Implementation of Online Learning among Accounting Teachers and Students," *International Journal of Academic Research in Business and Social Sciences* 12, no. 2 (2022): 398–412.

[12] Shajeea Arshad Ali et al., "The Outbreak of Coronavirus Disease 2019 (COVID-19)—An Emerging Global Health Threat," *Journal of Infection and Public Health* 13, no. 4 (April 2020): 644–46, https://doi.org/10.1016/j.jiph.2020.02.033.

[13] Joshua Weidlich and Theo J Bastiaens, "Explaining Social Presence and the Quality of Online Learning with the SIPS Model," *Computers in Human Behavior* 72 (2017): 479–87.

independent study.[14] Another research by Anwar et al. focused on the experiences of medical and dental students with e-learning in private institutions, indicating that students were generally prepared for this transition and had positive experiences, but further research was urged to address potential learning outcome deficiencies.[15]

In a study on nursing students in the United States, Nepal (2020) found that although students had a favorable attitude towards e-learning during the pandemic, issues with internet connectivity and technology were reported.[16]If these challenges were adequately managed, e-learning could serve as a viable alternative to traditional methods. In contrast, a study involving Jordanian medical students identified several technical and infrastructural hurdles that affect their learning experiences and satisfaction. Kaur et al. compared e-learning with traditional learning among medical undergraduates during the pandemic and found that e-learning was less effective.[17] Although it was on par with traditional methods in developing communication and student skills, the level of interaction was lacking, making it unsuitable for hands-on courses. The authors suggested that e-learning should complement rather than replace traditional instructional methods. In theAccounting education, studies by Gandhi suggest that the abrupt transition to e-learning could adversely affect learning outcomes.[18] The inherently quantitative nature of Accounting, with its reliance on figures and tables, necessitates significant interaction between instructors and students. The experiences of students and their satisfaction with teaching methods are vital for the sustainability of higher education.[19] As a result, higher education leaders prioritize creating positive learning experiences that lead to student satisfaction.[20] The factors influencing student learning experiences differ, but the model proposed by Awidi has been explored in various studies. Awidi identified six key factors that contribute to the learning experience: knowledge construction and self-reflection, feedback, assessment, motivation and support, access to resources and information, and participation and collaboration.[21] Awidi et al., Prakash and Saini, and Alyahya argue that these factors are crucial for assessing student experiences and their correlation with satisfaction.[22]

Notably, in Accounting, students often need more engagement with instructors on statistics and numerical concepts. However, during COVID-19, communication between Accounting instructors and students reduced.[23] Therefore, it is anticipated that the learning experiences for Accounting students differ before and during the pandemic, taking in account the transition from traditional face-to-face education to e-learning.

Quality of learning in online and traditional learning

Peterson and Palmer highlight that a lack of technological competency and confidence among educators results in insufficient integration of technology into teaching.[24] Technology plays a crucial role in both

[14] K. Nalini et al., "High-Resolution Lagrangian Inverse Modeling of CO 2 Emissions Over the Paris Region During the First 2020 Lockdown Period," *Journal of Geophysical Research: Atmospheres* 127, no. 14 (2022), https://doi.org/10.1029/2021JD036032.

[15] Aiza Anwar et al., "E-Learning amid the COVID-19 Lockdown: Standpoint of Medical and Dental Undergraduates," *Pakistan Journal of Medical Sciences* 37, no. 1 (2021): 217.

[16] Suraksha Subedi et al., "Impact of E-Learning during COVID-19 Pandemic among Nursing Students and Teachers of Nepal," *International Journal of Science and Healthcare Research* 5, no. 3 (2020): 68–76.

[17] Davinder Kaur et al., "Trustworthy Artificial Intelligence: A Review," *ACM Computing Surveys (CSUR)* 55, no. 2 (2022): 1–38.

[18] Rajesh T. Gandhi, Preeti N. Malani, and Carlos del Rio, "COVID-19 Therapeutics for Nonhospitalized Patients," *JAMA* 327, no. 7 (February 15, 2022): 617, https://doi.org/10.1001/jama.2022.0335.

[19] Abu Elnasr E Sobaih, Ahmed M Hasanein, and Ahmed E Abu Elnasr, "Responses to COVID-19 in Higher Education: Social Media Usage for Sustaining Formal Academic Communication in Developing Countries," *Sustainability* 12, no. 16 (2020): 6520.

[20] Ibrahim A Elshaer and Abu Elnasr E Sobaih, "Flower: An Approach for Enhancing e-Learning Experience amid COVID-19," *International Journal of Environmental Research and Public Health* 19, no. 7 (2022): 3823.

[21] Isaiah T Awidi, Mark Paynter, and Tijana Vujosevic, "Facebook Group in the Learning Design of a Higher Education Course: An Analysis of Factors Influencing Positive Learning Experience for Students," *Computers & Education* 129 (2019): 106–21.

[22] Awidi, Paynter, and Vujosevic, "Facebook Group in the Learning Design of a Higher Education Course: An Analysis of Factors Influencing Positive Learning Experience for Students"; Lakshmi Sunil Prakash and Dinesh Kumar Saini, "E-Assessment for e-Learning," in *2012 IEEE International Conference on Engineering Education: Innovative Practices and Future Trends (AICERA)* (IEEE, 2012), 1–6.

[23] Adel Sarea, Abdulla Alhadrami, and Ghilan Al-Madhagy Taufiq-Hail, "COVID-19 and Digitizing Accounting Education: Empirical Evidence from GCC," *PSU Research Review* 5, no. 1 (June 2, 2021): 68–83, https://doi.org/10.1108/PRR-10-2020-0034.

[24] Rolfe Daus Peterson and Carl L. Palmer, "The Dark Triad and Nascent Political Ambition," *Journal of Elections, Public Opinion and Parties* 32, no. 2 (April 3, 2022): 275–96, https://doi.org/10.1080/17457289.2019.1660354.

online and in-person learning environments. Poor preparation in creating course content can have significant consequences, regardless of the delivery method. Henderson examined the benefits of a 24-hour access learning tool that complements traditional university classes.[25] Students who utilized this online software significantly outperformed their peers who did not have access. The continuous availability of web-based software with tutorials is a key factor in student success, particularly in blended or online learning formats. The ability to connect students, web-based software tutorials, and instructors creates an ongoing and effective learning experience that transforms instructional methods. Online interactive resources not only enhance learning but also provide flexibility for studying and reinforcing knowledge on-demand. The insights from this study are crucial to effective content delivery in any teaching format. It is vital to integrate web-based software technology in both online and face-to-face courses to minimize variations and ensure consistent outcomes.

Grossman and Johnson found that Accounting faculty were generally reluctant to accept online Accounting credits from other institutions, while administrative staff were more open to accepting such credits for transferring students.[26] There was no significant difference in the attitudes of professors who taught online compared to those who used traditional methods. Faculty members often viewed online Accounting instruction as inferior to traditional teaching methods, primarily due to concerns over integrity and rigor. Thus, developing high-quality online content and implementing proctored exams is essential to ensure the authenticity of the courses. The Association to Advance Collegiate Schools of Business advocates for the integration of technology in all Accounting instruction, rather than treating it as a separate information systems course.[27] According to DiRienzo and Lilly, "The rise of online learning can likely be attributed to a combination of student demand for such courses and financial incentives for institutions to cater to this demand."[28] As states continue to reduce funding for public higher education or maintain stagnant funding levels, institutions must be financially prudent in their decisions regarding faculty employment and technology use to maximize revenue.

Learning style influences decision to take online programmes

Beadles and Lowery analysed factors influencing students' choices to enrol in online MBA programmes, focusing on learning styles, specifically audio and visual modalities.[29] The researchers did not discover any notable differences between these groups in terms of their readiness to enroll in online courses compared to traditional ones. However, a distinction emerged between sensing and intuitive learners. Sensing students, who prefer established methods and concrete data, tend to favour traditional classroom settings. On the contrary, intuitive learners, who thrive on innovative ideas and creative exploration, are more likely to opt for online courses, valuing the flexibility and diverse perspectives offered in that format. This research underscores how learning preferences impact the choice of educational delivery methods among postgraduate students.

The complex nature of these courses may attract older and more self-motivated students compared to Principles of Accounting courses Ally, Pillay and Govender (2022). also discovered that 70% of online learners considered themselves visual learners, noting that auditory learners would typically prefer traditional settings where they can listen to lectures. Kinesthetic learners represented 11%, tactile learners 10%, and auditory learners 8% of the learning styles for students enrolled in the online course. According to Bates (2005) the flexibility of online learning encouraged students to choose this mode over traditional formats because it allowed them to progress at their own pace, despite the perceived scarcity of a suitable medium for communicating with instructors. Students with good self-discipline favored online courses, while those who preferred conventional classrooms cited the

[25] J. Henderson et al., "Triaxiality in Selenium-76," *Physical Review C* 99, no. 5 (May 13, 2019): 054313, https://doi.org/10.1103/PhysRevC.99.054313.

[26] T. Grossman and T. Johnson, "Reclaiming Conversation: The Power of Talk in a Digital Age," *New Media And& Society* 19 (2010): 1152–53.

[27] Iman Rabah, "Association to Advance Collegiate Schools of Business (AACSB) Accreditation Standards: An Analytical Study of Its Implications on Business Faculty Members" 9 (January 1, 2015): 219–30.

[28] Cassandra DiRienzo and Gregory Lilly, "Online versus Face-to-Face: Does Delivery Method Matter for Undergraduate Business School Learning?," *Business Education & Accreditation* 6, no. 1 (2014): 12.

[29] N. Beadles and C. Lowery, "Self-Selection into Degree Programs: Differences in Preferred Learning Styles between Online Students and Traditional Students," *Academy of Educational Leadership Journal* 11, no. 2 (2007): 103–12.

direct interactions with peers and faculty as their reason for preference. The second most common reason students opted for traditional courses instead of online ones was the structured atmosphere of a physical classroom, which they believed improved their learning experience. As noted by Akkilinc, a key factor contributing to this choice was the dynamic nature of in-person discussions.[30] Students said that online discussions frequently lacked the energy and engagement found in traditional classroom environments. They remarked that digital communication often felt more formal and distant, mainly because it eliminated crucial non-verbal cues, such as body language and facial expressions, which are essential for expressing emotions and developing interpersonal connections in face-to-face interactions. The lack of visual and tactile feedback made virtual conversations seem more impersonal and less supportive of collaborative learning.

METHODOLOGY

The study employed an interpretivist approach, prioritizing the understanding of how individuals perceive social phenomena instead of looking for universal truths. A qualitative methodology was used to explore the experiences of accounting students in detail. The research adopted a case study method to investigate a particular aspect within real-life settings, focusing on the Business Management Education department of a Faculty of Education and specifically on final-year accounting students. Purposive sampling was applied to ensure a variety of perspectives, selecting 16 final-year students (8 males and 8 females) based on set criteria. Data collection occurred through narrative and semi-structured interviews to gather comprehensive insights, with thematic analysis used to identify and report patterns or themes in the data across defined phases of analysis. The researchers obtained ethical clearance and formal institutional approval, along with acquiring informed consent to guarantee voluntary participation. The rights of participants were emphasized, including their ability to withdraw at any point, to prevent any type of coercion. Confidentiality and anonymity were preserved by excluding personal identifications, using coded references, and applying strict security measures for data storage. The interviews and transcription processes were conducted privately, with encrypted devices and secure storage utilized to ensure adherence to ethical and legal standards. Collectively, these principles protect the privacy of participants, enhance transparency, and reinforce the trustworthiness of the research process.

PRESENTATION OF FINDINGS

Engagement and learning outcomes

The participants **ASF4**, **ASM2**, **ASM5** and **ASF6** gave their views on the quality of learning for online and traditional learning and also strategies they utilised to stay motivated as well. **ASF4** stated that:

> *Well, to stay motivated, I would set up goals, creating a dedicated study space free of distractions, participating actively in online discussions and group projects and reaching out to classmates/colleagues for support when needed, also by finding ways to apply accounting concepts to real-world scenarios. Learning outcomes differed between online and in-person classes. Although online courses provided convenience, face-to-face interactions facilitated deeper understanding and immediate feedback.*

On the accuracy of the online assessment, **ASF4** stated that:

> *The online assessments were fair but lacked the depth of the in-person exams. They tested knowledge, but did not always capture critical thinking skills.*

However, **ASM2's** views on the online assessment were different:

> *As for online assessments, they can be effective. Simulations and case studies can be quite realistic. However, the lack of face-to-face interaction with instructors can make it difficult to gauge understanding. Networking with peers is different – online forums and breakout rooms help, but it's definitely not the same as grabbing coffee with classmates.*

[30] Filiz Resat Akkilinc, "Online Learning and Traditional Face-to-Face Learning: A Comparison Exploring Learning and Learning Experiences among Students in the HE of the Eastern Mediterranean" (The University of Liverpool (United Kingdom), 2024).

In terms of motivation and strategies, Participant **ASF6** revealed that:

> *Staying motivated requires self-discipline. I set clear deadlines, use online calendars with reminders, and reward myself for completing tasks. The jury is still out on learning outcomes. Some concepts feel clearer with on-demand lectures, while others might benefit from in-class discussions. For online and face-to-face lectures, Online courses required more self-discipline, but they also allowed for deeper dives into specific topics through pre-recorded lectures. In-person classes foster better understanding of complex concepts through live discussions, but online courses offer a wider range of industry experts as guest lecturers would be available. Then, when it comes to the assessment issues, the online assessments are a mixed bag. Multiple choice quizzes were limiting, but open-ended assignments with clear rubrics allow me to showcase my understanding effectively.*

Still on motivation, the views were independent, as **ASM5** stated:

> *To stay motivated, I leverage online tools like discussion forums and breakout rooms for virtual study sessions. Plus, the flexibility of online learning lets me structure my study schedule around my life, which keeps me engaged. I would also do rereading my content before attending the online classes, and lastly always ask questions where I don't understand.*

The participants expressed their experiences with online and traditional learning. They all agreed that staying motivated required setting goals and using online tools for studying. However, their views on learning quality differed. Some, like ASF4, found online learning less effective for deep understanding and critical thinking. Others, such as ASM2, believed that online simulations could be realistic and engaging. All participants acknowledged the limitations of online assessments, while also appreciating the flexibility and wider range of experts offered by online courses.The discussion of satisfaction and preference revealed the following ideas, with **ASF4** stating that she had mixed feelings:

> *To me, I have a mixed bag of feelings about the current online learning experience for accounting. While the flexibility of learning at our own pace and schedule is a big plus, some students miss the in-person interaction and real-time clarification you get in a traditional classroom. I prefer the structure and focus of a physical classroom. The in-person interaction with the lectures and classmates for discussions and problem-solving can be invaluable. However, others who have busy schedules or find online learning more convenient definitely favor it.*

ASM3 enjoyed much of online learning as his preference by offering learning from the comfort of his home:

> *Online Accounting is alright, I guess. It's definitely more chill than having to be in a classroom at a set time every day. Plus, I can learn in my pajamas! Sometimes the lectures can drag on a bit, but at least I can just hit pause and grab a snack. Honestly, though, I miss the interaction with classmates. It can be tough to stay focused on my own, especially when things get confusing. Having a study group online is cool, but it is not quite the same as being able to whiteboard stuff out with people.*

On the question of improvement in online learning, **ASM3** stated that:

> *If they could make the online classes more interactive, that would be awesome! Maybe live quizzes or polls to keep things interesting. And some kind of online practice program with fake companies and stuff would be sick. That way, we could actually see how accounting works in the real world, not just memorizing numbers.*

ASF2, as a family person, recommended online learning, as she outlined that:

> *The online accounting program has been a real lifesaver for me. Juggling work and family commitments, fitting in a traditional classroom schedule would not be possible. The flexibility to learn at my own pace is fantastic. I can review lectures again if something needs clarification,*

which is especially helpful with the more complex accounting principles. However, I do find the lack of in-person interaction a bit isolating at times. While online discussions are helpful, I miss the spontaneous learning that happens by bouncing ideas off classmates in person.

ASF6 rejected online learning:

Online accounting is a bit tricky for me. Don't get me wrong, learning from home in my comfy chair is nice, but this whole computer thing can be a hassle sometimes. Figuring out all the buttons and stuff on the online platform takes some time, and sometimes the internet cuts out right when the professor's explaining something important. I definitely miss the teacher being there in person to explain things again if I don't get it the first time. These online lectures move fast, and if I miss something, it is hard to catch back up. Maybe they could offer some printed handouts with the key points, as they used to in regular classes. That way, even if the internet acts up, I wouldn't be completely lost. The other students seem to figure things out online just fine, but for folks like me who am not the most tech-savvy, maybe they could offer some extra help sessions that focus on navigating the online platform itself. That way, we can focus on learning the accounting stuff instead of wrestling with the computer.

The students had mixed feelings about the online Accounting classes. Some, like **ASF4** and **ASF2,** appreciate the flexibility and ability to learn at their own pace, but miss the in-person interaction and real-time clarification of a traditional classroom. Others, such as **ASM3,** enjoyed the comfort of pausing physical lectures but wished for more interaction and practical learning. The biggest drawbacks for some, such as **ASF6,** are technical difficulties and the lack of in-person support. Overall, online learning offers advantages but may not suit everyone's learning style.

DISCUSSION

The findings of this study provide a nuanced understanding of the experiences of accounting students during their transition to online learning, particularly in a period marked by rapid digital transformation in higher education. The research indicates that students' initial challenges in adapting to virtual classrooms were significantly influenced by their limited prior exposure to online learning environments and insufficient technological resources. This aligns with the observations from Czerniewicz et al., which highlighted how digital inequities in South Africa exacerbate disparities in student performance following the adoption of online learning modalities by institutions. [31] Consequently, the unpreparedness identified in this study underscores the systemic inequalities that continue to shape educational access and engagement in post-apartheid South Africa. On the contrary, the gradual appreciation for the flexibility offered by online learning among students suggests a positive change in the attitudes and agency of learners. Many participants expressed a preference for the autonomy and self-paced nature of online education, which allowed them to effectively manage their academic, personal, and professional responsibilities concurrently.

This finding supports Moore's Theory of Transactional Distance, which posits that learners in online environments can attain deep learning through structured independence and self-regulation, provided that adequate support mechanisms are in place.[32] Furthermore, it complements Schmidt's findings that demonstrated comparable learning outcomes between online and traditional accounting courses.[33] Thus, despiteinitial resistance, the data indicate that students' perceptions evolved positively as they gained increased confidence and competence in navigating digital platforms. Nevertheless, the results also illuminate significant challenges that impede the realization of the benefits of online education. A recurrent theme among students was the sense of isolation and the lack of face-to-face interaction, which negatively impacted motivation and engagement. This observation resonates with Garrison, Anderson, and Archer's Community of Inquiry framework, which identifies social presence

[31] Laura Czerniewicz et al., "A Wake-up Call: Equity, Inequality and Covid-19 Emergency Remote Teaching and Learning," *Postdigital Science and Education* 2, no. 3 (2020): 946–67.
[32] Stephen K Moore et al., "Murine 86-and 84-KDa Heat Shock Proteins, CDNA Sequences, Chromosome Assignments, and Evolutionary Origins," *Journal of Biological Chemistry* 264, no. 10 (1989): 5343–51.
[33] George Schmidt, *Physics of High Temperature Plasmas* (Elsevier, 2012).

as a crucial factor in fostering meaningful online learning experiences.[34] In the absence of robust interpersonal connections, students reported feelings of detachment, frustration, and decreased academic enthusiasm. These findings consequently challenge overly optimistic assumptions in the literature that equate access to technology with successful learning outcomes. Furthermore, research indicates that effective online learning requires advanced self-discipline and time management skills, which not all students possess at the beginning. This observation partially contradicts the work of DiRienzo and Lilly, who emphasized institutional and economic motivations behind the adoption of online learning but did not comprehensively consider the psychological adaptation process of learners.[35]

In contrast, the current findings suggest that the human dimension t motivation, resilience, and digital confidence plays an equally significant role in determining the success of online educational initiatives. A key contribution of this study is its exploration of the digital divide and its academic implications. Students from rural and under-resourced areas consistently reported difficulties in accessing stable internet connections and reliable devices. These disparities not only inhibited participation but also reinforced broader socio-economic inequalities, echoing concerns articulated by Van Deursen and Van Dijk regarding the exacerbation of educational inequities in digital learning contexts.[36] This reinforces the argument that, while online education holds democratic potential, it may also establish exclusion if systemic inequalities remain unaddressed. In summary, the discussion highlights that online learning embodies both opportunities and challenges for higher education institutions. It reaffirms prior research that emphasizes the value of digital flexibility while extending the discourse by elucidating the socio-technical conditions that shape its success.

The findings suggest that the future of online education hinges on an integrated approach one that harmonizes technological investment with pedagogical innovation and equitable access. By relating these findings back to the central research question regarding students' experiences and adaptations to online learning, the study underscores that student success in digital environments is influenced not solely by technology, but by the interplay of digital readiness, institutional support, and social inclusion.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that higher education institutions adopt a blended learning approach that integrates both online and face-to-face instruction. This model accommodates diverse learning preferences, promotes flexibility, and fosters meaningful social interaction among students. To ensure equitable access to online learning, universities should enhance their digital infrastructure by investing in stable internet connectivity and providing affordable data packages or campus-based digital access points for students from disadvantaged backgrounds. Furthermore, it necessary to offer continuous technological support and training for both students and lecturers to strengthen digital literacy and build confidence in the use of virtual learning platforms effectively.

In addition, institutions should encourage greater student engagement by designing interactive and collaborative online activities that simulate in-person discussions, thus maintaining motivation and active participation. Maintaining high academic quality and consistency across both online and traditional learning modes is also essential. This can be achieved through regular quality assurance reviews, lecturer training, and the integration of student feedback into course design. Finally, universities must strengthen academic, psychological, and technical support services within online platforms to address the holistic needs of students and ensure that the mode of delivery is not disadavantage to any learner.

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CONCLUSION

This research explored the experiences and viewpoints of accounting students as they navigated both online and traditional learning environments. The findings indicated that while online education offers notable flexibility and allows students to engage with the material at their own pace, it also presents a series of significant hurdles. Students often face challenges such as inconsistent internet connectivity, which can disrupt their study schedules and access to resources. Additionally, the lack of face-to-face interaction with peers and instructors can diminish the richness of the learning experience, leading to feelings of isolation and a disconnection from the academic community. Furthermore, the shift to online learning demands a higher level of self-discipline and motivation from students, as they must manage their time effectively and remain accountable for their own learning progress. The research underscores the critical need for educational institutions to cultivate inclusive, balanced, and supportive learning systems that effectively combine the advantages of both online and in-person instruction. As digital learning continues to develop and proliferate within higher education, it becomes imperative to uphold academic standards, advocate for equitable access to resources, and foster active student engagement. By addressing these factors, educational stakeholders can work towards achieving meaningful and sustainable outcomes that enrich the learning experience for all students.

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