



Assessing the Impact of Behavioural Aspects on Learning Accounting Among Grade 10 Learners: A Case Study of One School

Olwethu Solundwana¹ , Limkani Sincuba¹  & Baseza Totobayo¹ 

¹ Faculty of Education, Walter Sisulu University, South Africa.

ABSTRACT

Accounting, like any other subject, requires continuous assessment to provide teachers with feedback on the teaching and learning process, enabling the adaptation of instructional methods to better suit the subject matter. The study investigated the impact of behavioural aspects on learning accounting among Grade 10 learners. The study was grounded on Behavioural Accounting Theory and Social Cognitive Theory. The study had a purposive sample of 31 grade 10 learners doing accounting from grade 10 to grade 12 in one school in the Oliver Reginald Tambo (ORT) District. The research was guided by a mixed-methods approach, integrating surveys and structured questionnaires, thematic coding interviews, focus group discussions, and classroom observations to analyse cognitive load. Descriptive statistics were used to summarise key demographic and behavioural variables. Findings reveal that teacher attitudes affect learner confidence in accounting. Prior exposure to accounting concepts in earlier grades also correlates with improved performance in Grade 10. Behavioural aspects shape learners' ability to grasp accounting principles. Recommendations include integrating accounting basics into earlier curricula, adopting interactive teaching strategies such as project-based learning, providing formative assessments with feedback, and implementing mentorship programs to improve learners' attitudes toward accounting. The study concluded that behavioural aspects significantly influenced the learning of accounting among Grade 10 learners at the selected school. Addressing behavioural factors was seen to be contributing to improved learner outcomes. The study highlighted the importance of creating supportive learning environments, which incorporate real-world applications of accounting concepts and address foundational gaps in Grades 8 and 9.

Correspondence

Limkani Sincuba

Email:

leesincuba@gmail

Publication History

Received: 11th June, 2025

Accepted: 20th October, 2025

Published online: 29th December, 2025

To Cite this Article:

Solundwana, Olwethu, Limkani Sincuba, and Baseza Totobayo. "Assessing the Impact of Behavioural Aspects on Learning Accounting Among Grade 10 Learners: A Case Study of One School." *E-Journal of Humanities, Arts and Social Sciences* 6, no. 14 (2025): 3692 - 3706, <https://doi.org/10.38159/ehass.202561413>.

Keywords: Behavioural Aspects, Learning, Accounting, Environment, Socioeconomic Barriers

INTRODUCTION

The Grade 10 level is a critical phase in the educational journey of learners. It lays the foundation for further studies in accounting and related fields, equipping learners with essential skills in financial management and decision-making. However, many Grade 10 learners face challenges in mastering accounting concepts, often due to inadequate preparation from earlier grades and negative perceptions of

the subject.¹ Behavioural aspects, including cognitive biases, emotional influences, and social interactions, significantly impact how learners engage with and understand accounting principles.² The South African curriculum emphasises the development of critical thinking, ethical behaviour, and problem-solving skills. Learners often struggle with the nature of accounting and its application to real-world scenarios.³

Mastery of Accounting by grade 10 learners at this level might significantly influence their academic trajectory and future career opportunities in finance, business, and related disciplines. Despite its importance, accounting remains a challenging subject for many learners due to its technical nature and abstract concepts that require not only cognitive skills but also a positive behavioural disposition. Research indicates that learners' attitudes, motivation, and classroom behaviour can either facilitate or hinder their understanding and application of accounting principles.⁴ Moreover, socio-economic factors and peer influences often shape learners' perceptions and engagement with the subject, affecting their academic performance.⁵ Behavioural challenges such as anxiety towards mathematics-related subjects, lack of self-confidence, and negative experiences with previous learning exacerbate difficulties in accounting education. This highlights the need for pedagogical approaches that go beyond content delivery to address these affective factors. By looking behavioural aspects, the study aims to identify key influences that teachers and curriculum developers could target to foster a more inclusive and motivating learning environment. Additionally, understanding these factors may assist in designing interventions such as mentorship programs, collaborative learning, and formative assessments that actively engage learners and build their confidence.

This study aims to explore how behavioural factors influence the learning of accounting among Grade 10 learners, with a focus on developing strategies that educators may use to enhance engagement, understanding, and academic performance in accounting. The research seeks to contribute to the development of more effective teaching methods that address the cognitive and emotional challenges faced by Grade 10 learners. Understanding the behavioural influences may help educators create supportive learning environments that may promote positive attitudes towards accounting and improve learners' overall educational outcomes.⁶ The study is guided by the following research questions:

1. What are the primary behavioural factors that influence Grade 10 learners' attitudes towards accounting?
2. How do emotional influences impact learners' ability to learn and apply accounting principles?

LITERATURE REVIEW

The literature review outlines the impact of behavioural aspects on learning accounting among grade 10 learners.

Challenges Faced by Learners in Accounting Education

Research has highlighted that many learners develop negative attitudes towards accounting, often perceiving the subject as difficult and overwhelming.⁷ Research highlights the challenge of inadequate preparation in the earlier grades, particularly Grades 8 and 9, where learners receive limited exposure to

¹ Selina Dikgale and Thulani Chauke, "Teacher's Perceptions on the Impact of Curriculum Changes on Accounting Learners' Academic Performance," *Indonesian Journal of Social Research (IJSR)* 6, no. 3 (December 26, 2024): 220–35, <https://doi.org/10.30997/ijrs.v6i3.499>.

² Riccardo Camilli et al., "Cognitive Biases in Accounting Judgment and Decision Making: A Review, a Typology, and a Future Research Agenda," *Accounting Forum*, January 2, 2025, 1–30, <https://doi.org/10.1080/01559982.2024.2434340>.

³ Aram Mohammed-Amin Qadir, Rashed Baker Zakaria Alwardat, "Virtual Worlds, Real Skills: Is the Metaverse the Future of Accounting Education?," *Tuijin Jishu/Journal of Propulsion Technology* 44, no. 3 (September 13, 2023): 210–19, <https://doi.org/10.52783/tjjpt.v44.i3.258>.

⁴ Judith M Bowser, "Anxiety, Preconceived Negative Perceptions, and Self-Efficacy: Impact on Adult Learners' Performance in Introductory Accounting Courses" (Saint Leo University, 2021).

⁵ Douglas Fisher and Nancy Frey, *Better Learning through Structured Teaching: A Framework for the Gradual Release of Responsibility* (ASCD, 2021).

⁶ Nazish Khalid et al., "Privacy-Preserving Artificial Intelligence in Healthcare: Techniques and Applications," *Computers in Biology and Medicine* 158 (May 2023): 106848, <https://doi.org/10.1016/j.compbiomed.2023.106848>.

⁷ Bowser, "Anxiety, Preconceived Negative Perceptions, and Self-Efficacy: Impact on Adult Learners' Performance in Introductory Accounting Courses."

accounting concepts.⁸ The curriculum tends to focus more on general financial literacy rather than foundational accounting principles, which leaves learners underprepared when they encounter the more technical and detailed accounting content in Grade 10.⁹ The foundational knowledge contributes significantly to learners' struggles and lack of confidence in accounting.

Additionally, language barriers present another critical challenge, especially in township and rural schools where the language of instruction is often not the learners' first language.¹⁰ Linguistic disconnect could hinder comprehension and engagement, making it difficult for learners to grasp complex accounting terminology and processes.¹¹ The combined effect of limited prior exposure and language difficulties often results in decreased motivation and poorer academic performance in accounting.

Teaching Strategies and Behavioural Aspects

Effective teaching strategies play a crucial role in addressing the challenges associated with teaching accounting by fostering supportive and engaging learning environments. Employing diverse instructional approaches such as project-based learning, problem-based learning, self-directed learning, and cooperative learning may significantly enhance learners' interest and active participation in accounting.¹² These strategies encourage students to take ownership of their learning, collaborate with peers, and apply theoretical concepts to practical, real-world problems. Such engagement is essential in accounting education, where understanding complex principles and developing analytical skills are vital. In addition, the South African National Curriculum Statement support the importance of nurturing critical thinking, ethical behaviour, and problem-solving abilities among learners.¹³ These behavioural aspects align closely with the goals of accounting education, which not only require technical proficiency but also demand integrity and sound judgment in financial decision-making. Integrating these behavioural competencies within teaching strategies ensures that learners are better prepared to navigate ethical dilemmas and complex challenges in their academic and professional lives in accounting.¹⁴

Assessment and Feedback

Regular formative assessments and timely feedback play a vital role in enhancing learners' understanding and academic performance in accounting.¹⁵ These assessments provide ongoing opportunities for students to demonstrate their grasp of concepts and receive constructive guidance, enabling them to identify areas of strength and weakness throughout the learning process.¹⁶ Providing feedback immediately after the completion of each topic significantly improves learner engagement and retention.¹⁷ This approach allows learners to connect theoretical accounting principles with practical applications, reinforcing their comprehension and boosting confidence.¹⁸

Furthermore, incorporating real-life scenarios into formative assessments further enriches the learning experience by making accounting concepts more relatable and relevant.¹⁹ When students encounter practical examples that mirror actual business situations, they develop critical thinking and

⁸ Chris J. Hendriks and Grace Felicia Dunn, "Factors That Influence Learners' Performance in Grade 12 Accounting: A Case Study in the Northern Cape," *Koers - Bulletin for Christian Scholarship* 86, no. 1 (June 17, 2021), <https://doi.org/10.19108/KOERS.86.1.2508>.

⁹ Fisher and Frey, *Better Learning through Structured Teaching: A Framework for the Gradual Release of Responsibility*.

¹⁰ Margaret Funke Omidire, "Experiencing Language Challenges in a Rural School: Implications for Learners' Life Aspirations," *Early Child Development and Care* 190, no. 10 (2020): 1619–37.

¹¹ Meng Kheang Sorn et al., "The Effectiveness of Compensation in Maintaining Employee Retention," *OALib* 10, no. 07 (2023): 1–14, <https://doi.org/10.4236/oalib.1110394>.

¹² Timothy Olusegun Eebo, *Effects of Cooperative, Project-Based and Inquiry-Based Teaching Methods on Business Education Students' Academic Performance in Principles of Accounting* (Kwara State University (Nigeria), 2020).

¹³ Janet C. Fairman et al., "The Challenge of Keeping Teacher Professional Development Relevant," *Professional Development in Education* 49, no. 2 (March 4, 2023): 197–209, <https://doi.org/10.1080/19415257.2020.1827010>.

¹⁴ Walusa Ajuma and Molaodi Tshelane, "Conducive Conditions for Curriculum Practice in Teaching Accounting at a Rural School in the KwaZulu-Natal," *International Journal of Studies in Inclusive Education* 1, no. 2 (December 20, 2024): 1–7, <https://doi.org/10.38140/ijisie.v1i2.1397>.

¹⁵ Fairman et al., "The Challenge of Keeping Teacher Professional Development Relevant."

¹⁶ Ajuma and Tshelane, "Conducive Conditions for Curriculum Practice in Teaching Accounting at a Rural School in the KwaZulu-Natal."

¹⁷ Khalid et al., "Privacy-Preserving Artificial Intelligence in Healthcare: Techniques and Applications."

¹⁸ Ajuma and Tshelane, "Conducive Conditions for Curriculum Practice in Teaching Accounting at a Rural School in the KwaZulu-Natal."

¹⁹ Kelum Jayasinghe, "Constructing Constructivism in Management Accounting Education: Reflections from a Teaching Cycle with Innovative Learning Elements," *Qualitative Research in Accounting & Management* 18, no. 2 (July 16, 2021): 282–309, <https://doi.org/10.1108/QRAM-05-2020-0067>.

problem-solving skills essential for accounting proficiency.²⁰ The contextual learning encourages active participation and helps learners appreciate the value of accounting knowledge in everyday financial decision-making.

Behavioural Accounting and Decision-Making

Behavioural accounting, a fascinating sub-discipline that investigates the psychological and sociological influences on human behaviour within decision-making processes, provides valuable insights into how students perceive and apply accounting concepts.²¹ The field bridges the gap between traditional accounting practices and the real-world complexities of human judgment.²² Understanding financial attitudes and risk preferences is essential for effective decision-making.²³ Exploring how students' biases affect their investment choices could brighten the cognitive processes involved in evaluating financial information and making rational decisions. By understanding these behavioural factors, educators could tailor teaching strategies to address common misconceptions, promote critical thinking, and encourage more informed financial choices.²⁴ The findings on the impact of behavioural factors on decision-making could be adapted to inform teaching strategies for younger learners.²⁵

Behavioural Aspects in Accountancy

Research on behavioural aspects in accountancy has increasingly highlighted the significant role that human behaviour plays in shaping both accounting practices and educational outcomes.²⁶ Traditional accounting education often focuses on technical skills and numerical accuracy, but recent studies emphasise the importance of understanding how cognitive biases, emotional influences, and social interactions impact learners' engagement with accounting concepts.²⁷ Cognitive biases such as overconfidence, anchoring, or confirmation bias could affect how students interpret financial data and make accounting decisions.²⁸ Emotional factors, such as a lack of confidence, may reduce participation in class activities.

Furthermore, social dynamics—such as peer influence, group work, and classroom culture—could also support the learning process.²⁹ Recognising these behavioural factors allows educators to develop more effective teaching strategies that address both the cognitive and emotional challenges faced by learners. Incorporating collaborative learning, real-life scenarios, and reflective exercises could help students become more aware of their own thought processes and emotional responses.³⁰ By acknowledging and addressing these behavioural aspects, accounting educators could create a more supportive and engaging learning environment, ultimately enhancing students' understanding, motivation, and long-term success in the field of accountancy.³¹

²⁰ Marelize Malan and Vanessa van Dyk, "Students' Experience of Pervasive Skills Acquired through Sponsored Projects in an Undergraduate Accounting Degree," *South African Journal of Accounting Research* 35, no. 2 (May 4, 2021): 130–50, <https://doi.org/10.1080/10291954.2020.1827851>.

²¹ Laura Smith, "Combating Hate Speech and Misinformation in the Digital Age," *Journal of Interfaith Relations* 30, no. 1 (2022): 12–25.

²² Ajuma and Tshelane, "Conducive Conditions for Curriculum Practice in Teaching Accounting at a Rural School in the KwaZulu-Natal."

²³ Calvin Mudzingiri, "The Impact of Financial Literacy on Risk Seeking and Patient Attitudes of University Students," *Development Southern Africa* 38, no. 5 (September 3, 2021): 845–61, <https://doi.org/10.1080/0376835X.2021.1945431>.

²⁴ Uduak Imoh Udoudom, Saawuan Aondowase, and Anthony Igiri, "Impact of Education and Communication on Behaviour Change," *Journal of Language, Literature, Social and Cultural Studies* 1, no. 3 (November 1, 2023): 271–80, <https://doi.org/10.58881/jllscs.v1i3.120>.

²⁵ Malan and Dyk, "Students' Experience of Pervasive Skills Acquired through Sponsored Projects in an Undergraduate Accounting Degree."

²⁶ Hina Jameel and Ale Tonazzo, "Exploring the Role of Accounting in Driving Interdisciplinary Organizational and Human Development Strategies," 2024.

²⁷ K. S. Wood, "Increasing Learner Engagement in, and Performance of, Technical Threshold Concepts in Accounting and Finance Education through a Gamified Learning Experience" (University of Tasmania, 2022).

²⁸ Angela M. Ervin, "Perceptions of School Culture and Their Influence on the Teacher-Student Relationship" (Miami University, 2019).

²⁹ Ervin, "Perceptions of School Culture and Their Influence on the Teacher-Student Relationship."

³⁰ Kumaran Rajaram, "Learning Interventions: Collaborative Learning, Critical Thinking and Assessing Participation Real-Time," in *Evidence-Based Teaching for the 21st Century Classroom and Beyond* (Singapore: Springer Singapore, 2021), 77–120, https://doi.org/10.1007/978-981-33-6804-0_3.

³¹ Ervin, "Perceptions of School Culture and Their Influence on the Teacher-Student Relationship."

Learning Environments and Accounting Education

The concept of 'place' as an active educator in accounting education highlights the critical role of learning environments in shaping learners' experiences and outcomes.³² It moves beyond the traditional notion of classrooms as mere spaces for instruction, emphasising the intentional design of supportive and interactive learning spaces that foster engagement and a deeper understanding of accounting principles.³³ The perspective promotes environments that encourage active participation, collaboration, and the application of theoretical knowledge to real-world contexts.³⁴ The study highlights the challenges of resource constraints and curriculum rigidity in South African schools, and the creation of flexible and resource-rich learning spaces becomes even more crucial.³⁵ Diversifying learning environments through simulations, industry partnerships, and the integration of digital tools could compensate for these limitations, enhancing the relevance and impact of accounting education.³⁶ Exploring diverse metropolitan locations may offer unique opportunities for experiential learning and real-world applications of accounting concepts, allowing learners to engage with accounting practices in various business and community settings.³⁷

The Role of Motivation and Attitude in Accounting Learning

Motivation and attitude play a crucial role in the learning of accounting, significantly influencing how learners engage with and comprehend the subject matter.³⁸ Motivation, both intrinsic and extrinsic, drives learners' persistence, effort, and willingness to overcome challenges in mastering accounting concepts. Intrinsically motivated learners tend to show greater curiosity, deeper understanding, and long-term commitment to the subject, whereas extrinsic motivators, such as grades or teacher approval, may provide short-term engagement but less sustained interest.³⁹ Attitude towards accounting, shaped by prior experiences, cultural beliefs, and peer influence, also affects learners' willingness to participate and perform. Positive attitudes towards accounting encourage active participation, confidence, and resilience, while negative attitudes may lead to anxiety, avoidance, and poor academic outcomes.⁴⁰

In the context of Grade 10 learners, motivation and attitude are particularly influential as many students encounter accounting for the first time in a formal setting. Negative stereotypes about accounting's difficulty discourage some learners from fully engaging, while motivated learners often demonstrate higher achievement and conceptual understanding.⁴¹ Educators who recognize and address learners' motivational needs and attitudes can foster a supportive learning environment that enhances engagement and success. Strategies such as goal-setting, relevance of accounting in real life, and positive reinforcement have been shown to improve learner motivation and cultivate constructive attitudes, ultimately enhancing overall learning outcomes in accounting education.⁴²

³² K. Ramsarghey, "Informing Teaching and Learning Practice : Identifying Educator Capabilities for Improving Student Performance in Accounting Education" (Durban University of Technology, 2020), <https://doi.org/10.51415/10321/4400>.

³³ Denise Jackson and Stephanie Meek, "Embedding Work-Integrated Learning into Accounting Education: The State of Play and Pathways to Future Implementation," *Accounting Education* 30, no. 1 (2021): 63–85.

³⁴ Ramsarghey, "Informing Teaching and Learning Practice : Identifying Educator Capabilities for Improving Student Performance in Accounting Education."

³⁵ Nontando Rose Mgobo, "Exploring the Challenges Faced by a University of Technology in Generating Third-Stream Income" (North-West University (South Africa), 2024).

³⁶ Jackson and Meek, "Embedding Work-Integrated Learning into Accounting Education: The State of Play and Pathways to Future Implementation."

³⁷ Jackson and Meek, "Embedding Work-Integrated Learning into Accounting Education: The State of Play and Pathways to Future Implementation."

³⁸ Sabaruddin Chaniago, "The Influence of Learning Motivation and Self-Efficacy on Accounting Understanding (Case Study at Institute of Information Technology and Business)," *Journal of Business Integration Competitive* 1, no. 1 (October 30, 2024): 38–45, <https://doi.org/10.64276/jobic.v1i1.6>.

³⁹ Joanna Krasodomska and Justyna Godawska, "E-Learning in Accounting Education: The Influence of Students' Characteristics on Their Engagement and Performance," *Accounting Education* 30, no. 1 (January 2, 2021): 22–41, <https://doi.org/10.1080/09639284.2020.1867874>.

⁴⁰ Agoestina Mappadang et al., "Academic Interest Determines the Academic Performance of Undergraduate Accounting Students: Multinomial Logit Evidence," *Cogent Business & Management* 9, no. 1 (December 31, 2022), <https://doi.org/10.1080/23311975.2022.2101326>.

⁴¹ Krasodomska and Godawska, "E-Learning in Accounting Education: The Influence of Students' Characteristics on Their Engagement and Performance."

⁴² Chaniago, "The Influence of Learning Motivation and Self-Efficacy on Accounting Understanding (Case Study at Institute of Information Technology and Business)."

Cognitive Load and Its Impact on Accounting Comprehension

Cognitive load refers to the amount of mental effort required to process information and perform learning tasks, which is particularly relevant in accounting education due to the subject's complexity. Accounting involves understanding abstract concepts, numerical data, and multi-step problem-solving, all of which impose a considerable cognitive burden on learners. When cognitive load exceeds a learner's working memory capacity, comprehension is hindered, leading to decreased learning efficiency and increased frustration.⁴³ For Grade 10 learners, many of whom are still developing foundational numeracy and analytical skills, managing cognitive load is essential to facilitate effective understanding of accounting principles.

Research highlights three types of cognitive load: intrinsic, extraneous, and germane. Intrinsic load is related to the inherent difficulty of accounting content, while extraneous load arises from poor instructional design or irrelevant information. Germane load is the mental effort dedicated to processing and integrating new information. Effective accounting instruction aims to reduce extraneous load and optimize germane load to enhance comprehension. Techniques such as breaking down complex tasks into smaller steps, using visual aids, and providing worked examples have been shown to support learners in managing cognitive load.⁴⁴ By addressing cognitive load, educators can improve learners' ability to grasp and apply accounting concepts, leading to better academic outcomes and more positive learning experiences.

Influence of Peer Interaction and Classroom Dynamics on Behavioural Outcomes in Accounting Education

Peer interaction and classroom dynamics play a significant role in shaping behavioural outcomes in accounting education. Collaborative learning environments encourage learners to engage actively with accounting concepts through discussion, problem-solving, and shared experiences. Positive peer interactions might enhance motivation, build confidence, and promote a deeper understanding of the subject matter. When learners work together, they exchange diverse perspectives, clarify doubts, and reinforce learning, which contributes to improved academic performance.⁴⁵

Conversely, negative classroom dynamics, such as competition, exclusion, or disruptive behaviour, can impede learning and foster anxiety or disengagement. The social environment within the classroom influences learners' attitudes toward accounting, affecting their willingness to participate and adopt positive behavioural strategies. For Grade 10 learners, who are often navigating social identity and self-esteem development, supportive peer relationships and inclusive classroom cultures are critical in fostering constructive behaviours. Research advocates for structured group activities, peer tutoring, and cooperative learning strategies as effective methods to enhance behavioural outcomes and academic success in accounting classes.⁴⁶ Incorporating these approaches helps create an interactive and supportive learning atmosphere where learners feel valued and motivated. Understanding the influence of peer interaction and classroom dynamics assists educators in designing interventions that promote positive behaviours and improve learners' engagement and achievement in accounting education.

THEORETICAL FRAMEWORK

The study was grounded in the Behavioural Accounting Theory, which suggests that human behaviour, including cognitive biases, emotions, and social influences, plays a crucial role in shaping learners' engagement with accounting practices.⁴⁷ The theory highlighted concepts such as cognitive load, where

⁴³ Poorya Shidfar, *Anxiety, Working Memory, and Cognitive Load in Community College Students Solving Statistics Problems* (University of Florida, 2024).

⁴⁴ Krasodomska and Godawska, "E-Learning in Accounting Education: The Influence of Students' Characteristics on Their Engagement and Performance."

⁴⁵ Muhammad Usman Tariq, "Enhancing Students and Learning Achievement as 21st-Century Skills Through Transdisciplinary Approaches," in *Transdisciplinary Approaches to Learning Outcomes in Higher Education*. (IGI Global, 2024), 220–57, <https://doi.org/10.4018/979-8-3693-3699-1.ch007>.

⁴⁶ Robyn M. Gillies, "Using Cooperative Learning to Enhance Students' Learning and Engagement during Inquiry-Based Science," *Education Sciences* 13, no. 12 (December 15, 2023): 1242, <https://doi.org/10.3390/educsci13121242>.

⁴⁷ Jameel and Tonazzo, "Exploring the Role of Accounting in Driving Interdisciplinary Organizational and Human Development Strategies."

the complexity of information and teaching methods influences learners' ability to process accounting concepts.⁴⁸ Furthermore, trust and accountability are vital, as learners' trust in teachers and the perceived relevance of accounting affect motivation.⁴⁹

Social Cognitive Theory (SCT) emphasises the mutual relationship between learners, their environment, and behavioural outcomes.⁵⁰ Teacher influence is important, as negative attitudes may reduce learner confidence, while supportive environments foster engagement.⁵¹ Learners also model behaviours from peers and educators through observational learning, which impacts their problem-solving approach.⁵²

METHODOLOGY

Research Approach

The research approach to studying the impact of behavioural aspects on learning accounting among grade 10 learners was grounded in the mixed-methods approach, combining quantitative and qualitative techniques to capture behavioural, cognitive, and environmental influences. Quantitative research uses surveys and structured questionnaires to measure variables such as attitudes, motivation, self-efficacy, and academic performance.⁵³ Qualitative focus group discussions and semi-structured interviews were conducted with learners and teachers to explore subjective experiences and contextual factors.

Population and Sampling

In the context of the study involving 31 grade 10 accounting learners, the purposive sampling method was particularly beneficial for several reasons. The selected participants were specifically chosen in Oliver Reginald Tambo District (ORT) because they have voluntarily opted for accounting as a subject from grade 10 to grade 12. The critical criterion ensured that the sample consisted of individuals with a genuine interest and relevant experience in accounting, which was essential for understanding their perspectives and experiences in the subject. By focusing on this group, the study could critically assess and gain a deeper insight into the aspects that influence learners' engagement and performance in accounting.⁵⁴

The targeted approach was advantageous in educational research, where understanding the insight of student experiences is crucial for developing effective curricula and instructional strategies. The approach enhances the richness of the data collected and provides a more in-depth understanding of the subject matter, which could ultimately inform improvements in accounting education.⁵⁵

Ethical Considerations

Ethical considerations were integral to the study, which purposively selected 31 Grade 10 learners to understand the impact of behavioural aspects on learning accounting. Prior to data collection, informed consent was obtained from all participants and, where applicable, their parents or guardians, ensuring that they were fully aware of the study's purpose, procedures, and their rights, including the right to withdraw

⁴⁸ Monte Wynder, "Visualising Accounting Concepts: Insights from Cognitive Load Theory for English as a Second Language Students," *Accounting Education* 27, no. 6 (November 2, 2018): 590–612, <https://doi.org/10.1080/09639284.2017.1361847>.

⁴⁹ Seedwell Tanaka Muyako Sithole and Indra Abeyssekera, *Accounting Education* (Routledge, 2017), <https://doi.org/10.4324/9781315268521>.

⁵⁰ Haohao Yang et al., "Does Participation in Group Music Activities and Pro-Social Behavior Among College Students Have an Association? A Study of the Interlocking Mediating Effects of Positive Social Connections and Peer Support," *Behavioral Sciences* 15, no. 1 (January 13, 2025): 64, <https://doi.org/10.3390/bs15010064>.

⁵¹ Yavuz Sökmen, "The Role of Self-Efficacy in the Relationship between the Learning Environment and Student Engagement," *Educational Studies* 47, no. 1 (January 2, 2021): 19–37, <https://doi.org/10.1080/03055698.2019.1665986>.

⁵² Deri Firmansyah and Dadang Saepuloh, "Social Learning Theory: Cognitive and Behavioral Approaches," *Jurnal Ilmiah Pendidikan Holistik (JIPH)* 1, no. 3 (2022): 297–324.

⁵³ Blessing Mbatha, "Global Transition in Higher Education: From the Traditional Model of Learning to a New Socially Mediated Model," *The International Review of Research in Open and Distributed Learning* 15, no. 3 (June 16, 2014), <https://doi.org/10.19173/irrodl.v15i3.1823>.

⁵⁴ Judith Ainsworth, "Team-Based Learning in Professional Writing Courses for Accounting Graduates: Positive Impacts on Student Engagement, Accountability and Satisfaction," *Accounting Education* 30, no. 3 (May 4, 2021): 234–57, <https://doi.org/10.1080/09639284.2021.1906720>.

⁵⁵ Lungani Makhathini and Francis Fabian Akpa-Inyang, "Enhancing Pedagogy and Learning Outcomes in Financial Accounting: A Case Study of Higher Education Institutions in South Africa," *Journal of Culture and Values in Education* 7, no. 4 (December 25, 2024): 305–23, <https://doi.org/10.46303/jcve.2024.54>.

at any time without penalty.⁵⁶ Confidentiality and anonymity were strictly maintained by assigning codes from YZ1 to YZ31 to participants and securely storing data to protect their identities and personal information.

The study adhered to ethical guidelines stipulated by the institutional review board and educational authorities, prioritizing the welfare and dignity of learners throughout the research process.⁵⁷ Researchers took care to create a respectful and non-invasive environment, minimizing any potential psychological discomfort or stress associated with participation in interviews, questionnaires, and observations. Furthermore, the study ensured that findings were reported honestly and fairly, avoiding any form of misrepresentation or bias that could affect the participants or the integrity of the research.⁵⁸ The ethical measures upheld the principles of respect, beneficence, and justice, fostering trust between researchers and participants and ensuring that the study contributed positively to educational practices without causing harm.

Data Collection

The study involving 31 accounting learners, surveys and structured questionnaires was utilised to gather comprehensive data effectively. The choice of the methods was primarily due to their ability to collect quantitative and qualitative information simultaneously, enabling a well-rounded understanding of learners' perspectives. Surveys allowed for the efficient distribution of questions to a broad audience, ensuring that data collection was manageable and systematic.

Structured questionnaires provided a consistent framework for responses, facilitating easier analysis by narrowing down variable interpretations. The approach minimised ambiguity, promoting reliability in the findings. Moreover, using structured questions enabled researchers to focus on specific aspects of the learners' experiences, such as their understanding of key accounting concepts and their attitudes toward the learning environment. The combination of surveys and structured questionnaires enhanced the study's rigor, paving the way for an insightful analysis of the accounting learners' educational experiences.

Data Analysis

The data analysis employed a mixed-methods approach to comprehensively examine behavioural influences on accounting learning. For the quantitative analysis, descriptive statistics were used to summarise key demographic and behavioural variables, such as age, motivation levels, and self-efficacy, while regression models tested relationships, such as the impact of self-efficacy on academic performance.⁵⁹ The statistical techniques used to identify patterns and correlations within the dataset. For the qualitative analysis, thematic coding was applied to interview and focus group transcripts to identify recurring themes related to attitudes, motivation, and environmental barriers. Triangulation integrated quantitative and qualitative findings to cross-validate results, ensuring a robust understanding of how behavioural factors shape learning outcomes in accounting.

PRESENTATION OF FINDINGS

Biographic profile of participants

Table 1: Demographic Characteristics of Study Participants

Criteria	High School Learners and Teachers	Frequency
Learners Gender	Males	20
	Females	11

⁵⁶ Andrew Crawford et al., "Ethical Research in the German Social Sciences: Exploring the Significance and Challenges of Institutionalized Research Ethics Practices," *Research Ethics* 21, no. 3 (July 13, 2025): 448–79, <https://doi.org/10.1177/17470161241270787>.

⁵⁷ Uzma Khan et al., "Educational Paradigm Shift: Long-Term Ramifications of COVID-19 in the Indian Context," *Journal of Infrastructure, Policy and Development* 8, no. 8 (August 5, 2024): 4629, <https://doi.org/10.24294/jipd.v8i8.4629>.

⁵⁸ Ibrahimia Haneef and Manish Agrawal, "Ethical Issues in Educational Research," *Asian Research Journal of Arts & Social Sciences* 22, no. 5 (May 15, 2024): 29–38, <https://doi.org/10.9734/arjass/2024/v22i5535>.

⁵⁹ Leehu Zysberg and Nitza Schwabsky, "School Climate, Academic Self-Efficacy and Student Achievement," *Educational Psychology* 41, no. 4 (April 21, 2021): 467–82, <https://doi.org/10.1080/01443410.2020.1813690>.

Average Age of Learners	14-15 Years	18
	16 Years	13
Grade	10 Learners	31
Pseudonyms for interview participants	YZ1, YZ2, YZ3, YZ4, YZ5, YZ6, YZ7, YZ8, YZ9, YZ10, YZ11, YZ12, YZ13, YZ14, YZ15, YZ16, YZ17, YZ18, YZ19, YZ20, YZ21, YZ22, YZ23, YZ24, YZ25, YZ26, YZ27, YZ28, YZ29, YZ30, YZ31,	31

The study sample consisted of 31 accounting learners from Grade 10, with a mean age of 15. The demographic exhibited a diverse age range, with participants ranging from 14-16 years and older. Gender distribution within the sample reflected a predominantly female composition, with 20 females and 11 male participants. To enrich the qualitative dimension of the research, a purposive sample of 31 learners was selected for the study. The methodological approach facilitated a deeper exploration of individual experiences and outcomes associated with accounting for Grade 10 learners. The inclusion of interviews enabled an enhanced understanding of the behaviours of accounting learners.

Table 2: Research themes and research questions

Research Question	Theme	Sub-theme
1. What are the primary behavioural factors that influence Grade 10 learners' attitudes towards accounting?	1. Behavioural Beliefs and Attitudes Towards Accounting.	1. Intrinsic Factors: Personal Interest and Perception of Accounting.
2. How do emotional influences impact learners' ability to learn and apply accounting principles?	2. Emotional Intelligence and Its Impact on Accounting Learning	2. Self-Regulation and Motivation as Key Emotional Factors

Research question 1: *What are the primary behavioural factors that influence Grade 10 learners' attitudes towards accounting?*

Theme 1: *Behavioural Beliefs and Attitudes Towards Accounting.*

Sub-theme 1: *Intrinsic Factors: Personal Interest and Perception of Accounting.*

Participants responded as follows:

Participant YZ3: *"I think one of the biggest factors is how we relate to accounting as a subject. The teacher makes the subject boring as we are calculating all the time. "*

Participant YZ5: *"Peer influence plays a major role. If my friends enjoy accounting and talk about it positively, I'm more interested in feeling the same way as my friends. I took the subject following my friends. I hate to be lonely.*

Participant YZ19: *"For me, it's all about confidence. When I understand the material and do well on assignments, my attitude improves. But if I struggle, I start to feel discouraged when I do not pass any given test or assignment."*

Research question 2: *How do emotional influences impact learners' ability to learn and apply accounting principles?*

Theme 2: *Emotional Intelligence and Its Impact on Accounting Learning.*

Sub-theme 2: *Self-Regulation and Motivation as Key Emotional Factors.*

Participant YZ2: "I feel anxious during accounting classes, and that makes it difficult for me to focus and keep the information."

Participant YZ7: "When my peers give me positive feedback, it boosts my confidence and helps me become more greatly with the accounting concepts."

Participant YZ10: "Whenever I get frustrated with difficult topics, I lose motivation to practice and apply what I've learned."

Participant YZ22: "I find that when I feel emotional to the practical applications of accounting, it enhances my understanding of the material."

Participant YZ 31: "The fear of making mistakes in exercises holds me back because I become too worried to fully participate in discussions and activities."

Figure 1: The Effect of Teacher Attitudes on Learner Confidence in Accounting

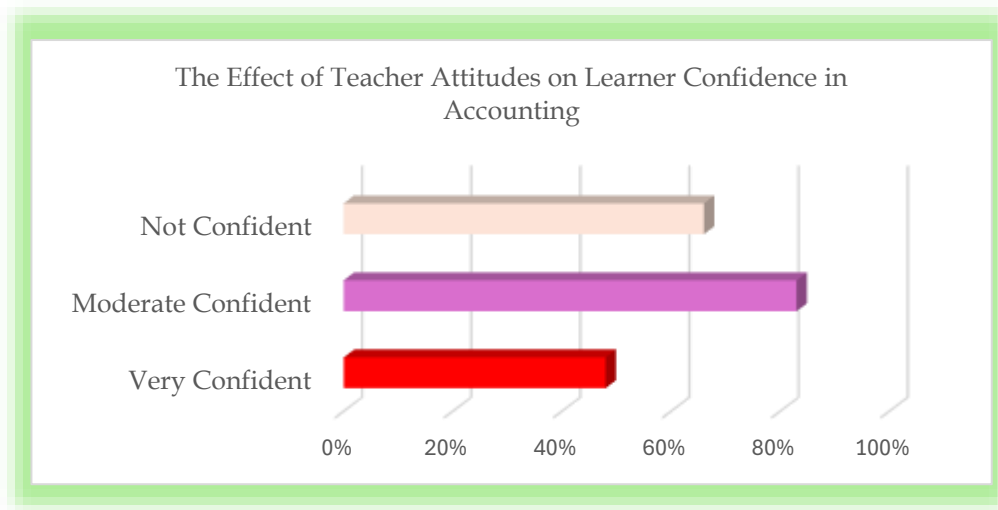


Figure 1: illustrates the effect of teacher attitudes on learner confidence in accounting: not confident 66%, moderately confident 83% and very confident 48%.

Figure 2: Impact of Prior Accounting Exposure on Grade 10 Performance

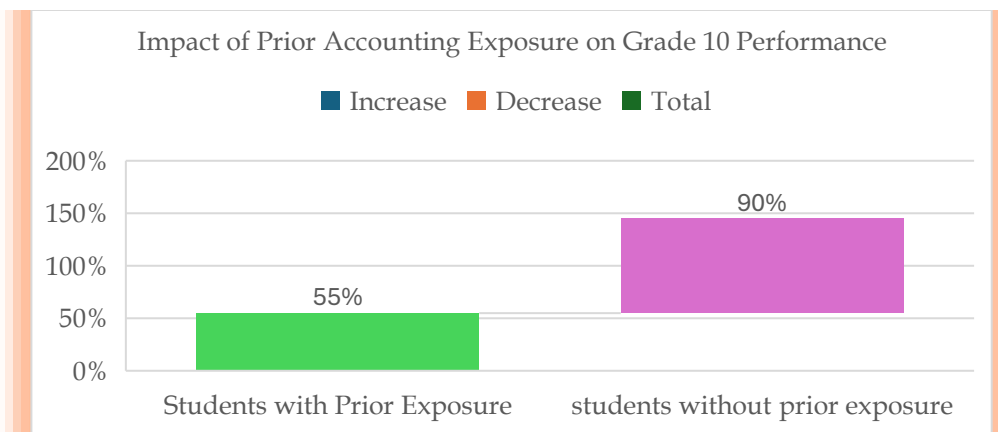


Figure 2: shows the impact of prior accounting exposure on grade 10 performance: students with prior exposure 55%, and students without prior exposure 90%.

DISCUSSION

The study suggested that participants' (teachers') attitudes significantly influence participants' (learners) confidence in accounting. Participants (learners) who perceived their participants (teachers) as supportive and confident in their teaching methods tend to have higher confidence levels, negative participants (teacher) attitudes may lead to lower participants (learners) confidence, which is reflected in the percentages of participants who are not confident (66%), moderately confident (83%), and very confident (48%). This aligns with the point made by Dikgale and Chauke, who emphasized the teacher's role in shaping learners' engagement and motivation.⁶⁰ Research highlighted that participants (teachers) face challenges such as inadequate training, insufficient resources, and curriculum changes, which may affect their attitudes and teaching effectiveness.

The study indicated that prior exposure to accounting significantly impacts performance in Grade 10. Participants (Learners) with prior exposure perform better (55%) compared to those without (90%). This finding echoes that of Maphadang et al. and Hendriks and Dunn, who found early exposure and foundational knowledge critical for improved accounting comprehension.⁶¹ Emotional factors such as anxiety and frustration were noted to affect learners' ability to focus and stay motivated, corroborating Bowser's research on anxiety impacting accounting learners.⁶² Overall, this study confirms that behavioural components and prior exposure are crucial for learning success, underscoring the need for supportive teaching strategies that foster confidence, motivation, and early introduction to accounting concepts.⁶³ The indication was that foundational knowledge in earlier grades is crucial for success in accounting. The lack of accounting exposure in Grades 8 and 9 is a significant challenge.⁶⁴ The gap in foundational knowledge may hinder participants' (learners') ability to grasp accounting principles in later grades, leading to poor performance. Furthermore, socio-economic factors and language barriers further complicate the learning process in accounting.

Participants highlighted how uninspiring teaching methods, such as repetitive calculations, negatively affected their interest (Participant YZ3). Peer influence also emerged as a key factor: learners reported that positive attitudes among friends increased their own interest and motivation to learn accounting (Participant YZ5), supporting Ajuma and Tshelane's findings on conducive social environments enhancing learning.⁶⁵ The research on the impact of behavioural aspects on learning accounting among Grade 10 learners highlighted that learners' attitudes towards accounting are influenced by their prior exposure to accounting concepts, teacher attitudes, and the learning environment. The lack of accounting exposure in earlier grades often leads to challenges in understanding accounting principles in Grade 10. Learners often experienced negative attitudes towards the subject. Furthermore, teacher attitudes and supportive learning environments play a crucial role in fostering learner confidence and engagement. Behavioural aspects, such as cognitive biases and emotional influences, also shape how learners perceive and apply accounting concepts.

RECOMMENDATIONS

The study recommends focusing on integrating foundational accounting concepts into Grades 8 and 9 to prepare learners for more advanced accounting in Grade 10. The researcher further suggests incorporating real-world scenarios and practical applications that may enhance learners' engagement and understanding of accounting principles. The study also recommends encouraging teachers to adopt supportive and

⁶⁰ Dikgale and Chauke, "Teacher's Perceptions on the Impact of Curriculum Changes on Accounting Learners' Academic Performance."

⁶¹ Hendriks and Dunn, "Factors That Influence Learners' Performance in Grade 12 Accounting: A Case Study in the Northern Cape."

⁶² Bowser, "Anxiety, Preconceived Negative Perceptions, and Self-Efficacy: Impact on Adult Learners' Performance in Introductory Accounting Courses."

⁶³ Ainsworth, "Team-Based Learning in Professional Writing Courses for Accounting Graduates: Positive Impacts on Student Engagement, Accountability and Satisfaction"; Chaniago, "The Influence of Learning Motivation and Self-Efficacy on Accounting Understanding (Case Study at Institute of Information Technology and Business)"; Makhathini and Akpa-Inyang, "Enhancing Pedagogy and Learning Outcomes in Financial Accounting: A Case Study of Higher Education Institutions in South Africa."

⁶⁴ Hendriks and Dunn, "Factors That Influence Learners' Performance in Grade 12 Accounting: A Case Study in the Northern Cape."

⁶⁵ Ajuma and Tshelane, "Conducive Conditions for Curriculum Practice in Teaching Accounting at a Rural School in the KwaZulu-Natal."

interactive methods, such as project-based and cooperative learning, to foster learner engagement. Teachers could receive ongoing training to address cognitive biases and emotional influences that affect learners' engagement with accounting concepts. Assessment and feedback could be provided to improve learners' understanding and application of accounting concepts. Teachers could implement regular formative assessments and feedback, and use real-life scenarios in assessments to enhance learners' ability to apply accounting principles in practical contexts. To improve learners' attitudes towards the subject, mentorship programs could be implemented for better results in accounting.

CONCLUSION

The study aimed to assess the impact of behavioural aspects on learning accounting among Grade 10 learners, focusing on how factors such as teacher attitudes, peer influence, emotional responses, and prior exposure to accounting concepts shape learners' engagement and academic performance. The findings confirmed that behavioural factors significantly influence learners' confidence, motivation, and ability to comprehend accounting principles. Participants emphasized that uninspiring teaching approaches and negative classroom dynamics hindered their interest, while supportive peer interactions and positive feedback boosted confidence and engagement. The analysis showed that learners with prior exposure to accounting performed better, underscoring the importance of early introduction to foundational accounting knowledge. Emotional factors such as anxiety, frustration, and fear of mistakes were found to impede learners' capacity to fully participate and apply accounting concepts, highlighting the need for teaching strategies that address these affective challenges. The study's mixed-methods approach provided a comprehensive understanding of how behavioural elements interplay with cognitive learning processes in accounting education. The research highlights the critical role of behavioural aspects in shaping the learning experiences and outcomes of Grade 10 accounting learners. It emphasizes the necessity for educators to adopt tailored teaching methods that foster positive attitudes, reduce anxiety, and promote peer collaboration. Incorporating early exposure to accounting and using interactive, real-world applications may enhance learner motivation and comprehension. The study concluded that behavioural aspects significantly influenced the learning of accounting among Grade 10 learners at the selected school. Addressing behavioural factors was seen to be contributing to improved learner outcomes, highlighting the need for tailored interventions to foster positive attitudes and effective learning in accounting education. These insights contribute to improving accounting education by advocating for supportive, learner-centred environments that address both cognitive and emotional needs. Ultimately, the study reinforces that addressing behavioural dimensions is essential to advancing effective accounting pedagogy and enhancing learners' academic success.

BIBLIOGRAPHY

- Ainsworth, Judith. "Team-Based Learning in Professional Writing Courses for Accounting Graduates: Positive Impacts on Student Engagement, Accountability and Satisfaction." *Accounting Education* 30, no. 3 (May 4, 2021): 234–57. <https://doi.org/10.1080/09639284.2021.1906720>.
- Ajuma, Walusa, and Molaodi Tshelane. "Conducive Conditions for Curriculum Practice in Teaching Accounting at a Rural School in the KwaZulu-Natal." *International Journal of Studies in Inclusive Education* 1, no. 2 (December 20, 2024): 1–7. <https://doi.org/10.38140/ijisie.v1i2.1397>.
- Bowser, Judith M. "Anxiety, Preconceived Negative Perceptions, and Self-Efficacy: Impact on Adult Learners' Performance in Introductory Accounting Courses." Saint Leo University, 2021.
- Camilli, Riccardo, Matteo Cristofaro, Ivo Hristov, and Massimo Sargiacomo. "Cognitive Biases in Accounting Judgment and Decision Making: A Review, a Typology, and a Future Research Agenda." *Accounting Forum*, January 2, 2025, 1–30. <https://doi.org/10.1080/01559982.2024.2434340>.
- Chaniago, Sabaruddin. "The Influence of Learning Motivation and Self-Efficacy on Accounting Understanding (Case Study at Institute of Information Technology and Business)." *Journal of Business Integration Competitive* 1, no. 1 (October 30, 2024): 38–45. <https://doi.org/10.64276/jobic.v1i1.6>.
- Crawford, Andrew, Laura Fichtner, Laura Gianna Guntrum, Stephanie Jänsch, Niklas Krösche, Eloïse Soulier, and Clara-Auguste Süß. "Ethical Research in the German Social Sciences: Exploring the

- Significance and Challenges of Institutionalized Research Ethics Practices.” *Research Ethics* 21, no. 3 (July 13, 2025): 448–79. <https://doi.org/10.1177/17470161241270787>.
- Dikgale, Selina, and Thulani Chauke. “Teacher’s Perceptions on the Impact of Curriculum Changes on Accounting Learners’ Academic Performance.” *Indonesian Journal of Social Research (IJSR)* 6, no. 3 (December 26, 2024): 220–35. <https://doi.org/10.30997/ijsr.v6i3.499>.
- Eebo, Timothy Olusegun. *Effects of Cooperative, Project-Based and Inquiry-Based Teaching Methods on Business Education Students’ Academic Performance in Principles of Accounting*. Kwara State University (Nigeria), 2020.
- Ervin, Angela M. “Perceptions of School Culture and Their Influence on the Teacher-Student Relationship.” Miami University, 2019.
- Fairman, Janet C., David J. Smith, Paige C. Pullen, and Steve J. Lebel. “The Challenge of Keeping Teacher Professional Development Relevant.” *Professional Development in Education* 49, no. 2 (March 4, 2023): 197–209. <https://doi.org/10.1080/19415257.2020.1827010>.
- Firmansyah, Deri, and Dadang Saepuloh. “Social Learning Theory: Cognitive and Behavioral Approaches.” *Jurnal Ilmiah Pendidikan Holistik (JIPH)* 1, no. 3 (2022): 297–324.
- Fisher, Douglas, and Nancy Frey. *Better Learning through Structured Teaching: A Framework for the Gradual Release of Responsibility*. ASCD, 2021.
- Gillies, Robyn M. “Using Cooperative Learning to Enhance Students’ Learning and Engagement during Inquiry-Based Science.” *Education Sciences* 13, no. 12 (December 15, 2023): 1242. <https://doi.org/10.3390/educsci13121242>.
- Haneef, Ibrahima, and Manish Agrawal. “Ethical Issues in Educational Research.” *Asian Research Journal of Arts & Social Sciences* 22, no. 5 (May 15, 2024): 29–38. <https://doi.org/10.9734/arjass/2024/v22i5535>.
- Hendriks, Chris J., and Grace Felicia Dunn. “Factors That Influence Learners’ Performance in Grade 12 Accounting: A Case Study in the Northern Cape.” *Koers - Bulletin for Christian Scholarship* 86, no. 1 (June 17, 2021). <https://doi.org/10.19108/KOERS.86.1.2508>.
- Jackson, Denise, and Stephanie Meek. “Embedding Work-Integrated Learning into Accounting Education: The State of Play and Pathways to Future Implementation.” *Accounting Education* 30, no. 1 (2021): 63–85.
- Jameel, Hina, and Ale Tonazzo. “Exploring the Role of Accounting in Driving Interdisciplinary Organizational and Human Development Strategies,” 2024.
- Jayasinghe, Kelum. “Constructing Constructivism in Management Accounting Education: Reflections from a Teaching Cycle with Innovative Learning Elements.” *Qualitative Research in Accounting & Management* 18, no. 2 (July 16, 2021): 282–309. <https://doi.org/10.1108/QRAM-05-2020-0067>.
- Khalid, Nazish, Adnan Qayyum, Muhammad Bilal, Ala Al-Fuqaha, and Junaid Qadir. “Privacy-Preserving Artificial Intelligence in Healthcare: Techniques and Applications.” *Computers in Biology and Medicine* 158 (May 2023): 106848. <https://doi.org/10.1016/j.compbiomed.2023.106848>.
- Khan, Uzma, Sana Naseem, Aarif Mohammad Khan, and Shaha Faisal. “Educational Paradigm Shift: Long-Term Ramifications of COVID-19 in the Indian Context.” *Journal of Infrastructure, Policy and Development* 8, no. 8 (August 5, 2024): 4629. <https://doi.org/10.24294/jipd.v8i8.4629>.
- Krasodomska, Joanna, and Justyna Godawska. “E-Learning in Accounting Education: The Influence of Students’ Characteristics on Their Engagement and Performance.” *Accounting Education* 30, no. 1 (January 2, 2021): 22–41. <https://doi.org/10.1080/09639284.2020.1867874>.
- Makhathini, Lungani, and Francis Fabian Akpa-Inyang. “Enhancing Pedagogy and Learning Outcomes in Financial Accounting: A Case Study of Higher Education Institutions in South Africa.” *Journal of Culture and Values in Education* 7, no. 4 (December 25, 2024): 305–23. <https://doi.org/10.46303/jcve.2024.54>.
- Malan, Marelize, and Vanessa van Dyk. “Students’ Experience of Pervasive Skills Acquired through Sponsored Projects in an Undergraduate Accounting Degree.” *South African Journal of Accounting Research* 35, no. 2 (May 4, 2021): 130–50. <https://doi.org/10.1080/10291954.2020.1827851>.
- Mappadang, Agoestina, Khusaini Khusaini, Melan Sinaga, and Elizabeth Elizabeth. “Academic Interest Determines the Academic Performance of Undergraduate Accounting Students: Multinomial Logit

- Evidence.” *Cogent Business & Management* 9, no. 1 (December 31, 2022). <https://doi.org/10.1080/23311975.2022.2101326>.
- Mbatha, Blessing. “Global Transition in Higher Education: From the Traditional Model of Learning to a New Socially Mediated Model.” *The International Review of Research in Open and Distributed Learning* 15, no. 3 (June 16, 2014). <https://doi.org/10.19173/irrodl.v15i3.1823>.
- Mgobo, Nontando Rose. “Exploring the Challenges Faced by a University of Technology in Generating Third-Stream Income.” North-West University (South Africa), 2024.
- Mudzingiri, Calvin. “The Impact of Financial Literacy on Risk Seeking and Patient Attitudes of University Students.” *Development Southern Africa* 38, no. 5 (September 3, 2021): 845–61. <https://doi.org/10.1080/0376835X.2021.1945431>.
- Omidire, Margaret Funke. “Experiencing Language Challenges in a Rural School: Implications for Learners’ Life Aspirations.” *Early Child Development and Care* 190, no. 10 (2020): 1619–37.
- Rajaram, Kumaran. “Learning Interventions: Collaborative Learning, Critical Thinking and Assessing Participation Real-Time.” In *Evidence-Based Teaching for the 21st Century Classroom and Beyond*, 77–120. Singapore: Springer Singapore, 2021. https://doi.org/10.1007/978-981-33-6804-0_3.
- Ramsarghey, K. “Informing Teaching and Learning Practice : Identifying Educator Capabilities for Improving Student Performance in Accounting Education.” Durban University of Technology, 2020. <https://doi.org/10.51415/10321/4400>.
- Rashed Baker Zakaria Alwardat, , Aram Mohammed-Amin Qadir,. “Virtual Worlds, Real Skills: Is the Metaverse the Future of Accounting Education?” *Tuijin Jishu/Journal of Propulsion Technology* 44, no. 3 (September 13, 2023): 210–19. <https://doi.org/10.52783/tjjpt.v44.i3.258>.
- Shidfar, Poorya. *Anxiety, Working Memory, and Cognitive Load in Community College Students Solving Statistics Problems*. University of Florida, 2024.
- Sithole, Seedwell Tanaka Muyako, and Indra Abeysekera. *Accounting Education*. Routledge, 2017. <https://doi.org/10.4324/9781315268521>.
- Smith, Laura. “Combating Hate Speech and Misinformation in the Digital Age.” *Journal of Interfaith Relations* 30, no. 1 (2022): 12–25.
- Sökmen, Yavuz. “The Role of Self-Efficacy in the Relationship between the Learning Environment and Student Engagement.” *Educational Studies* 47, no. 1 (January 2, 2021): 19–37. <https://doi.org/10.1080/03055698.2019.1665986>.
- Sorn, Meng Kheang, Adoree R. L. Fienena, Yasin Ali, Muhammad Rafay, and Guanghui Fu. “The Effectiveness of Compensation in Maintaining Employee Retention.” *OALib* 10, no. 07 (2023): 1–14. <https://doi.org/10.4236/oalib.1110394>.
- Tariq, Muhammad Usman. “Enhancing Students and Learning Achievement as 21st-Century Skills Through Transdisciplinary Approaches.” In *Transdisciplinary Approaches to Learning Outcomes in Higher Education.*, 220–57. IGI Global, 2024. <https://doi.org/10.4018/979-8-3693-3699-1.ch007>.
- Udoudom, Uduak Imoh, Saawuan Aondowase, and Anthony Igiri. “Impact of Education and Communication on Behaviour Change.” *Journal of Language, Literature, Social and Cultural Studies* 1, no. 3 (November 1, 2023): 271–80. <https://doi.org/10.58881/jllscs.v1i3.120>.
- Wood, K. S. “Increasing Learner Engagement in, and Performance of, Technical Threshold Concepts in Accounting and Finance Education through a Gamified Learning Experience.” University of Tasmania, 2022.
- Wynder, Monte. “Visualising Accounting Concepts: Insights from Cognitive Load Theory for English as a Second Language Students.” *Accounting Education* 27, no. 6 (November 2, 2018): 590–612. <https://doi.org/10.1080/09639284.2017.1361847>.
- Yang, Haohao, Siqin Wang, Xiaolong Chen, Hongfeng Zhang, and Cora Un In Wong. “Does Participation in Group Music Activities and Pro-Social Behavior Among College Students Have an Association? A Study of the Interlocking Mediating Effects of Positive Social Connections and Peer Support.” *Behavioral Sciences* 15, no. 1 (January 13, 2025): 64. <https://doi.org/10.3390/bs15010064>.
- Zysberg, Leehu, and Nitza Schwabsky. “School Climate, Academic Self-Efficacy and Student

Achievement.” *Educational Psychology* 41, no. 4 (April 21, 2021): 467–82.
<https://doi.org/10.1080/01443410.2020.1813690>.

ABOUT AUTHORS

Olwethu Solundwana, student in Master's for Education, Business Studies and AI development in Economics Sciences, Walter Sisulu University.

Limkani Sincuba Post-Doc Fellow in Research, English Language & Dramatic Arts and AI development in Dramatic Arts, Walter Sisulu University.

Baseza Totobayo, staff in Education, Business Studies and AI development in Economics Sciences, Walter Sisulu University.