



Students' experiences of peer learning in an accounting research module: Discussion forums, peer review and group work

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ABSTRACT

Collaborative or peer-learning strategies could enhance student engagement in management education, improve learning and help students develop workplace skills. The aim of this action research study was to evaluate the effectiveness of the peer learning (discussion forums, peer review and group work) employed in a postgraduate accounting research module. Findings from semi-structured interviews reveal that participants believed peer learning to facilitate social, cognitive, behavioural, collaborative and social engagement. Posting and reviewing comments on discussion forums developed students' communication skills and fostered a sense of community. Participants recommended that discussion forums should include a balance of applied and theoretical questions. Peer reviews allowed students to obtain feedback on their writing prior to their work being graded, and to develop the workplace skill of giving and receiving criticism. Participants believed that group work improved their teamwork skills and collaborating online prepared them for working in a post-COVID world. While some groups valued the social and emotional engagement facilitated by in-person group work, other groups found it more efficient to interact online. The findings emphasise the usefulness of peer learning strategies in management education, and especially in research modules, to foster engagement, increase student learning and to prepare students for the workplace.

1. Introduction

Given the impact of the fourth industrial revolution on accounting education and practice, there is increased pressure on accounting educators to ensure that their modules engage students, foster learning, and adequately prepare students for the workplace (Goosen & Steenkamp, 2023; Tharapos, 2022; Tsiligiris & Bowyer, 2021). Student engagement is a key antecedent to student success and might be enhanced by utilising active learning strategies (Castro et al., 2021; González & Blackford, 2022; Hu et al., 2023). These learning strategies could also incorporate technology, both to engage students and to enhance their digital skills (Hu et al., 2023; Navío-Marco et al., 2024; Tsiligiris & Bowyer, 2021). Importantly, programmes can no longer solely focus on developing students' technical skills - soft skills such as communication and relational skills have become equally important (Tharapos, 2022; Tsiligiris & Bowyer, 2021). Peer learning, as a specific type of collaborative active learning strategy, is ideally suited to increase student engagement and learning, while also facilitating the development of workplace skills (Allsop et al., 2020; Arnold, 2021; Castro et al., 2021; Navío-Marco et al., 2024). Peer learning can be facilitated through technology or in person and could take the form of in-person class discussions, asynchronous online discussion forums, online or in-person group work and peer review (Arnold, 2021; Boud et al.,

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1999; Castro et al., 2021).

Most of the existing research on peer learning in accounting education relates to undergraduate students (Allsop et al., 2020; Malan & Stegmann, 2018; Opdecam & Everaert, 2012; Pidduck & Bauer, 2022; Rainsbury & Malcolm, 2003; Weil et al., 2011, 2013). Few research studies have been conducted on the effectiveness of peer learning in postgraduate accounting modules (Ainsworth, 2021; Duncan et al., 2012; Ellis et al., 2015; Oosthuizen et al., 2021). Moreover, Boud and Lee (2005) argue that peer learning might be especially pertinent for research education, where it remains largely under-utilised and under-researched. Although Matherly and Burney (2009) postulate that peer review is useful in improving students' written communication skills, the effect of formative peer review on research writing has not specifically been considered.

This study reports on the researchers' endeavours to renew a postgraduate research module in accounting by introducing peer learning. The aim of this action research study was to evaluate the effectiveness of the specific peer-learning strategies (discussion forums, peer review and group work) in facilitating engagement, learning and the development of workplace skills. The study contributes to the body of knowledge by providing educators with increased understanding of the benefits and potential pitfalls of using peer learning in a research module environment. By sharing students' experiences of discussion forums, peer review and group work, this study can inform the decision-making when introducing these strategies into other modules in management education. The literature review follows next, after which the action research methodology, findings and conclusions of the study are presented.

2. Literature review

2.1. Peer learning and its link with student engagement

Peer learning (also called peer-to-peer, collaborative or cooperative learning) can be defined as "the use of teaching and learning strategies in which students learn with and from each other without the immediate intervention of a teacher" (Boud et al., 1999, pp. 413–414). While the role of an educator is to oversee and monitor peer learning, the students' role is to learn from one another rather than from the educator (Boud et al., 1999). Peer learning can be facilitated using technological tools or in person. It can contribute to a student's cognitive understanding of the technical contents in a module but it also develops students' communication, teamwork and other workplace skills – all of which could be termed graduate attributes (Arnold, 2021; Boud et al., 1999). A final potential benefit of peer learning is increased student engagement (Malan, 2020) which has been linked to improved student performance (Castro et al., 2021; Duncan et al., 2012; González & Blackford, 2022; Muñoz Miguel et al., 2023). This will be discussed next.

Engagement is a multifaceted concept with behavioural, emotional, and cognitive elements (González & Blackford, 2022; Navío-Marco et al., 2024; Parida et al., 2023). Redmond et al. (2018) expanded on the components of engagement in the learning environment and postulated that it is comprised of social (engagement through social availability and presence), cognitive (thinking critically and engaging with module content), behavioural (participating in activities), collaborative (engaging in collaborative tasks by challenging, questioning and/or supporting the ideas of others) and emotional engagement (reacting to the learning experience, by showing positive and negative emotions). Peer learning can facilitate student engagement at all levels as it allows social interaction through discussion forums, aids the understanding of content (cognitive) as students complete the activities (behavioural), enables collaboration through peer review and group work and allows for emotional involvement in the process. Peer-learning strategies are superior to other types of learning strategies in terms of their power to engage students at the social and collaborative levels (Malan, 2020). It must be noted, however, that while engaging socially in the learning space is important for some students, others prefer not to engage at this level (Malan, 2020) thus indicating that peer learning should provide a space for social engagement without coercion.

The engagement facilitated by peer learning might be impacted by whether marks are awarded to peer learning activities (for example, through low-stakes formative assessment strategies - often referred to as assessment for learning, rather than assessment of learning) (Boud et al., 1999; Wafubwa, 2020). At a basic level, one would expect behavioural engagement (i.e. participation in activities) to improve if marks are awarded for the completion of a certain activity. As a specific example, Holmes (2018) found that low-stakes assessment of online tasks increased behavioural engagement. Moreover, behavioural engagement could facilitate (or pre-empt) other types of engagement, for example emotional and cognitive engagement. As such, formative assessment of peer learning activities is expected to increase student engagement, motivation and future performance (Wafubwa, 2020). The following sections will consider the specific peer-learning strategies investigated in the present study.

2.2. Discussion forums

An online discussion forum can be defined as an electronic bulletin board for collaboration and communication enabling users to post and respond to discussion posts (Mazzolini & Maddison, 2003; Weil et al., 2013). Discussion forums encourage participation and communication with peers and encourage interaction with the course content thereby promoting self-directed learning and resulting in the social construction of knowledge and the dissemination of knowledge outside the conventional lecture setting (Abdel-Rahim, 2021; Brink, 2023; Castro et al. 2021; Seethamraju, 2014; Weil et al., 2011, 2013).

An asynchronous discussion forum gives users the freedom to explore discussion postings in any order, to reflect on earlier discussions, to selectively read and re-read certain posts and to compose responses without time limitations (Mabrito, 2000; Weil et al., 2013). At their own convenience, students can engage with asynchronous discussion forums which enable users to debate, share and consider their own understanding in the light of other users' viewpoints and experiences; this improves students' learning experience and allows them to become co-creators of knowledge (Brink, 2023; Kelly et al., 2023; Makinster et al., 2006; Pena-Shaff & Nicholls, 2004; Seethamraju, 2014; Stacey, 1999; Weil et al., 2011). To further enhance this interaction, an audience of peers is invited to read

and comment on discussion posts, refute arguments made, expand on concepts and provide alternate viewpoints (Castro et al., 2021; Rovai, 2001; Whittle et al., 2000). Asynchronous discussion forums enable an interactive educational experience which leads to collaborative thinking, enhanced information processing and reflective learning (Makinster et al., 2006; Mazzolini & Maddison, 2003; Pena-Shaff & Nicholls, 2004; Weil et al., 2013). In the forums, users express and defend their points of view by analysing, synthesising and evaluating information thereby engaging in higher-order thinking (Bloom, 1956; Lapadat, 2002). This results in carefully constructed, carefully considered posts (Brink, 2023; Lapadat, 2002).

Discussion forums help students improve their critical thinking skills, increase their awareness of their communication skills and to enhance overall student engagement (Weil et al., 2013). Asynchronous discussion forums might be especially helpful for students who are not comfortable with English as the tuition language (e.g. second language speakers) as the forums allow them the time to evaluate other students' remarks and craft their own responses (Castro et al., 2021; Kelly et al., 2023; Rainsbury & Malcolm, 2003; Wolverton, 2018). The study of Brink (2023:8) reports that discussion forums offer a "safe, comfortable space for students to ... interact", with most accounting students in the study feeling comfortable posting on the discussion forum. There were, however, students who were hesitant to use the discussion forum as they were afraid of posting a comment that might be perceived by others as "dumb" (Brink, 2023). Despite their reluctance to participate, students still benefit from observing, pondering or processing peers' interactions on the discussion forum (Ali et al., 2021; Breen et al., 2003; Kelly et al., 2023; Lindner & Murphy, 2001; Wells et al., 2008).

2.3. Peer review

Peer review (or peer feedback) involves students evaluating the work of their peers according to specific criteria and then providing (and likewise also receiving) informal, formative feedback (Falchikov, 2001; McLeay & Wesson, 2014). It appears to be underutilised in accounting education (Malan & Stegmann, 2018), but could enhance student learning (Ballantyne et al., 2002; Falchikov, 2001; Liu & Carless, 2006) by offering various benefits including.

- Offering exposure to the ideas of fellow students and stimulating collaborative learning (Malan & Stegmann, 2018; Matherly & Burney, 2009);
- Improving students' confidence in reviewing written material, improving their understanding of the assessment process and the assessment criteria and being able to apply this to their own work (Dale-Jones et al., 2013; Malan & Stegmann, 2018; Searby & Ewers, 1997);
- Providing an opportunity to give and receive feedback which helps students identify gaps in their own performance or knowledge (Liu & Carless, 2006; Pidduck & Bauer, 2022);
- Providing an opportunity for articulating discipline-specific knowledge thereby enhancing students' understanding of the subject being studied (Liu & Carless, 2006; Searby & Ewers, 1997);
- Empowering students to take an active role in the management of their own learning (Liu & Carless, 2006); and
- Developing critical thinking skills as students assess their peers' writing, requiring them to analyse the logic, flow and content of the assignments they review (Babu & Barghathi, 2020; Matherly & Burney, 2009).

Despite the various acknowledged benefits of peer review, literature also indicates that there may be drawbacks as not all students find this method to be satisfactory (Ballantyne et al., 2002; McDowell, 1995; Mowl & Pain, 1995). Challenges stem from the relative novelty of peer review in higher education with educators and students having limited experience with this evaluation tool (Ballantyne et al., 2002). In addition, the peer-review process demands a significant investment of time from students as they engage in the thorough examination, comparison, and evaluation of their peers' work (Ballantyne et al., 2002; Davies, 2000; Pidduck & Bauer, 2022). Students often lack confidence in both their own and their peers' abilities as reviewers (Ballantyne et al., 2002). Unless their feedback is evaluated for quality, some competitive students might be disinclined to provide constructive feedback on work that would be eligible for resubmission, fearing that assisting a peer could potentially elevate a peer's final grade above their own (Willey & Gardner, 2010). Students' personalities (Fandos-Herrera et al., 2023) and culture (McLeay & Wesson, 2014) may affect how they value and experience both providing and receiving peer feedback.

Despite some accounting students' reservations about peer review (Pidduck & Bauer, 2022), students generally recognise the value of the process in bolstering their capacity for independent learning, fostering self-responsibility in their learning journey, and enabling them to undertake roles as both peer reviewers and self-evaluators (Malan & Stegmann, 2018). Ellis et al. (2015) indicate that receiving feedback from and providing feedback to peers are valuable skills that students can carry forward to the workplace.

2.4. Group work

The terms 'group work' and 'teamwork' are often used interchangeably and both relate to the interdependence of group members, the coordination of efforts, the exchange of ideas and feedback, knowledge sharing and the pooling of skills, knowledge, and resources to accomplish group objectives efficiently and effectively (Analoui et al., 2014; Bayne et al., 2022; Healy et al., 2018), through creating synergy, allocating responsibilities, and managing time and conflicts (Oosthuizen et al., 2021). While Bayne et al. (2022) focused only on the component of group work that is assessed, the present study views group work as a broader concept which also incorporates the development of communication, teamwork and other workplace skills (which might not be assessed in the academic programme). This notion is supported by the finding of Healy et al. (2018) that students, when reflecting on the group work activities included in their undergraduate programme "emphasised the process of cooperative learning, including peer learning and social support, rather than

the deliverable outputs of group work”.

Group work is incorporated in accounting education programmes to help students build knowledge based on alternate perspectives and develop their soft skills (Bayne et al., 2022; Healy et al., 2018; Oosthuizen et al., 2021), as such skills are increasingly emphasised by employers and professional accounting bodies (Dyball et al., 2007; Jackling & De Lange, 2009; Plant et al., 2019). Malan (2020) found that not all students enjoyed group work. Challenges arose when group members failed to fulfil their responsibilities (for example, social loafers or free riders who failed to adequately contribute to group efforts). This resulted in diminished collective mental effort that impeded learning and evoked negative reactions from students toward group work (Dyball et al., 2007; Freeman & Greenacre, 2011; Opdecam & Everaert, 2012; Seow & Shankar, 2018). Analoui et al. (2014) found that limited sharing of skills (or synergy benefit) is evident in group work as groups tended to divide the work between group members, with each member then producing their portion of work individually. However, according to Ainsworth (2021) and Malan (2020), students also perceived group work to facilitate learning from and respect for others, which increased engagement. Moreover, group work developed negotiation, communication, teamwork and problem-solving skills, which were regarded as a valuable workplace skills (Ainsworth, 2021; Malan, 2020).

Opdecam and Everaert (2012) postulates that, to optimise learning, students should be able to choose whether they want to learn collaboratively or on their own. While this may hold true in the first-year environment of Opdecam and Everaert (2012), postgraduate students will soon enter the workforce which necessitates the development of the soft skills facilitated by group work (such as communication, teamwork and problem-solving skills) (Ainsworth, 2021). Moreover, when considering a postgraduate research module specifically, Bishop et al. (2022) propose that group work is crucial in developing students’ critical thinking and improving the criticality of their research projects. However, given that adaptability and flexibility are important teamwork skills (Ainsworth, 2021), it might be wise to allow students some agency relating to the mode of the group work (online versus in-person). A hybrid (or flexible) mode of group work prepares students for the post-COVID world of work where the optimal use of technology is an essential skill (Tharapos, 2022; Tsiligiris & Bowyer, 2021); this skill might include knowing when online (versus in-person) group work would be most beneficial for the achievement of group objectives.

3. Methods

This study employed an action research methodology (Malan, 2020) to assess the effectiveness of the peer-learning strategies employed in the research module. Action research entails a cyclical process of planning educational change in the sphere of the researchers, implementing the planned changes, reflecting on the effectiveness of the changes and, with the use of the information gained during the reflection phase, planning again for the following cycle (Malan, 2020). Action research aims to provide clear information on what the educator-researchers learn from the process so that other educators can benefit from the findings. As is usually the case in most studies, student feedback was obtained during the reflection phase of this study. Research suggests that students’ feedback can inform teaching and learning approaches (Abdel-Rahim, 2021; Marton & Säljö, 1997; McGuigan, 2021), as “students are the focal point from which success or failure of [accounting] educational methods need to be measured” (Fogarty, 2020, p. 567).

During the reflection phase, all students enrolled in the 2023 research module were invited to be interviewed to provide their feedback on the effectiveness of the peer learning incorporated in the module. Institutional permission was obtained from the university as well as ethical clearance (project number: 26637) prior to commencing the research. Eleven participants (referred to as P1–P11) agreed to participate in the study and provided informed consent before the interviews commenced. Semi-structured interviews were utilised to obtain detailed insights (Polkinghorne, 2005; Ryan et al., 2009) from participating students regarding their experiences of the discussion forums, peer review and group work in the module. This approach enabled the researchers to pose a variety of less-structured questions, explore spontaneous topics raised by participants, and seek clarification when necessary (Creswell & Guetterman, 2019; Ryan et al., 2009). The employment of open-ended questions and queries afforded participants the opportunity to respond in their own words and share their personal experiences (Ryan et al., 2009).

All interviews were recorded to ensure accurate documentation of the information provided. The interviews were transcribed and, by utilising thematic analysis, the researchers noted recurring themes, patterns and consistencies in the data gathered from the semi-structured interviews. Analysis of the data included the identification of codes and groups which were subsequently organised into pertinent themes (Hsieh & Shannon, 2005). These identified themes were then employed to reflect on the effectiveness of the peer learning in the module and to plan changes for the next iteration. The next sections describes the action research process by explaining the research context and the peer-learning methods implemented in the module (the planning and implementation phases of action research), reflecting on its effectiveness based on student feedback and, finally, applying appropriate changes to the peer learning in the module.

4. Research context and peer learning implemented in the module

The accounting research module under study is offered by a large residential university in South Africa, where it forms an elective in the postgraduate programme for chartered accountancy students. Students who achieved more than 70% for their undergraduate studies can choose to add the 30-credit research module to their postgraduate diploma in accountancy, to then be awarded an Honours degree instead of a diploma. Annually, 20 to 30 students elect to take the module, with an approximately even split between male and female students. Most of the students are South African nationals, in their early twenties and previously completed an undergraduate degree in accountancy at the same university. The year-long module is taught in English using blended active learning as teaching philosophy. At the start of the year, for approximately two weeks, students are taught the basics of the research process through

reading a local textbook, listening to podcasts, engaging in other readings and attending online classes. Although the module forms part of a postgraduate degree and the students qualifying for the module are diligent high-achieving students, this is their first introduction to research and therefore some of the aspects covered during these first two weeks might seem similar to what one would expect at an undergraduate level (see, for example, the discussion forums below which occur during this period). During the rest of the year, the students are instructed in research writing and then conduct research both independently and in a group setting – delivering work that one would normally associate with postgraduate (Honours level) students.

The module was first introduced in 2020 when the size of work groups was large (nine to ten students per group) and no discussion forums or peer review activities were included in the module. To increase engagement and student learning, the course was redesigned in 2021 with the group size being reduced to three or four students per group (as Davies (2009) indicated that smaller groups reduce the risk of social loafing) and the inclusion of additional active learning tasks. In 2022 and 2023, the module was further refined by instituting additional opportunities for peer learning through discussion forums and formalised peer review. Boud et al. (1999) recommend that participation and involvement in peer learning should be assessed periodically to encourage optimal participation (behavioural engagement) in these activities. In compliance with this recommendation, all students' peer learning activities were assessed by the module coordinator or research supervisors and the results were included in students' final marks for the module. By 2023, the peer learning implemented in the module had been substantially amended (with no major changes planned for 2024) and the researchers believed this to be the ideal time to reflect, through the process of action research, on the effectiveness thereof. A summary of the peer learning implemented during 2023 is provided in Fig. 1, and discussed below the figure.

Six online discussion forums were held in 2023, scheduled during the first two weeks of the module when the students were learning the basics regarding the research process. Students were awarded 'duly performed' marks for participating in the discussion forums (3% of final mark in total; 0.5% per discussion forum) for posting their own comment, and also for replying to at least two other students' comments by a certain date. The module coordinator checked whether each student had complied with requirements in the previous sentence before awarding the 0.5% per discussion forum. The discussion forums took place in the first two weeks of the year when students were not required to be on campus. Thus, they served as online engagement tools (Malan, 2020) to ensure that students engaged with the prescribed material (behavioural engagement) and could apply the knowledge gained (cognitive engagement).

The following discussion forum questions were included.

1. After reading Chapter 1 in the textbook, please give your opinion on the following: Should academic business research always have practical value or implications? Give a reason for your answer.
2. After reading Chapter 2, please describe the research assumptions or paradigms that you are drawn towards. Give a reason for your answers.
3. After reading Chapters 3 to 5, please comment on some of the main differences between quantitative and qualitative research methods.
4. Please describe your experiences when reading the seven academic articles provided for 4 January (were they easy or hard to read; what was difficult?). After reading Chapter 6, mention the strategies that you would employ in the future to make critical reading easier and more effective.
5. Relating to Chapters 10 and 11: Post your comments on any/all of the following questions relating to the issue of low response rates to electronic questionnaires:
 - (i) Does the low response rates associated with postal or online surveys mean that the structured interview or supervised survey is invariably a more suitable choice?
 - (ii) What steps can be taken to increase postal and online survey response rates?
 - (iii) Do you think offering an incentive for completing a research questionnaire is a good thing?

Discussion Forums	Peer Review	Group Work
<ul style="list-style-type: none"> • Online forums related to the basics of the research process • Students had to post their own comment to a question and also reply to the comments of two other students 	<ul style="list-style-type: none"> • Students had to review the draft assignments of other students • Focused on referencing, writing an introduction and writing a literature review 	<ul style="list-style-type: none"> • Students had to work in groups to draft a research proposal, gather data and write the results section • Could conduct group work online or in-person

Fig. 1. Summary of peer learning in the module.

6. Relating to Chapters 15 and 16: What is the difference between descriptive and inferential statistics? What does the p-value (significance level) in inferential statistics mean? Is inferential statistics always 'better' than descriptive statistics?

At pre-determined times and prior to the official submission date (when supervisors marked the students' writing), the students electronically reviewed their fellow group members' writing assignments. In this way, peers provided quick feedback to each of the students. Again, duly performed marks were awarded by the module coordinator to students for completing these reviews: 0.5% of the final mark for a referencing task, 1% for an introduction section, and 2% for a literature review section. The module coordinator sought evidence of the peer review process taking place (for example, comments or tracked changes in the electronic document) before awarding the marks.

Students were divided into groups consisting of three or four members under the supervision of an educator and allocated a research topic. Students had to perform certain tasks individually (for example, the discussion forums and peer reviews discussed above, completing an online quiz on research methodology, writing an introduction and conducting a literature review on their research topic) and others as a group (for example, drafting a research proposal, completing the ethical clearance application, data gathering and analysis, writing up the results pertaining to the research and presenting the results in an oral presentation). These group tasks were assessed by the research supervisors using rubrics and contributed 50% of the students' final mark for the module.

To help prepare students for the group work in the module, they attend a workshop on emotional intelligence and behavioural styles, after which they need to complete a reflection relating to their own behavioural style strengths and weaknesses. The students also received classes on research writing and were exposed to examples of good research writing. The peer review process (explained in the prior paragraph) further strengthened their writing skills. To prepare them for the oral presentations, they were provided with example presentations and took part in a mock presentation earlier in the year. For most of the year, students could choose to perform their group work in-person or online or using a combination of these two modes. Conducting group work in-person versus online might affect the effectiveness of the peer learning and therefore this aspect was specifically focused on during the reflection phase, which will be discussed next.

5. Reflecting on the effectiveness of peer learning in the module

5.1. Discussion forums

In line with Brink (2023) and Weil et al. (2013), participants believed that the discussion forums facilitated learning. As was also noted by Kelly et al. (2023), participants initially found it frightening and difficult to post on the discussion forum, but they "started to enjoy it towards the end" (P5). Many accounting students are not accustomed to giving their opinion on a matter which has no obvious answer, nor do they like giving a potentially wrong answer in a discussion forum which is visible to the entire group – as was also noted by Brink (2023). The forums allowed students to "develop [their] own opinion" (P2) and articulate their "understanding of what [they] just read" (P8) (aligning with advantages reported in Weil et al. (2011)). As summed up by one participant (P3):

The discussions were so exposing, but it's so good at the same time. But I remember the one day I was done reading, and I was like 'I'm not going to answer the question', because I'm going to be the first, and then someone is going to comment on mine, and I don't know if my opinion is correct, I don't know what I've just read. So, it was so terrifying, it was so out of my comfort zone.

Presenting a clear opinion is an important workplace skill and, as such, the discussion forums developed students' written communication skills. It allowed them to analyse how they communicate, how others interpret what they write and to express themselves better. The effectiveness of discussion forums in developing students' workplace skills was also emphasised by Weil et al. (2013) and Kelly et al. (2023). The student engagement facilitated by the discussion forums will be examined next.

The discussion forums took place concurrently with students reading the textbook – which "was very intense and difficult" (P1) as it contained a "lot of pages" (P6) of new technical information. The requirement to post on the discussion forum after reading the textbook sharpened their focus while they were reading. It also forced them to "start thinking about the work" (P1) and the practical applicability of the contents, i.e. it ensured cognitive engagement. It also reinforced the learning process – "when you have a discussion forum, you are going to remember something of the topic" (P2).

Besides posting their own comments, students also had to reply to two other students' comments. Aligned with Kelly et al. (2023), many participants mentioned that they benefitted from reading and replying to other posts. As stated by one participant, it "forced me to not just have my own ideas but to really critically think 'did this person have something new, something different, what can I say to it'" (P1). Thus, exposure to the opinions of other students was seen as valuable, as it forced them to critically review information (Weil et al., 2011). Writing their discussion forum posts and receiving feedback also boosted their confidence. As stated by one participant (P3):

I enjoyed commenting on people's stuff and be like I enjoy this comment. Even though it was frightening, I knew that it was really helping me, because otherwise the concepts would have been above my head always; the textbook would have frightened me, I would have thought I'll never get to that level, where the discussion forum really pushes you out and then be like go tell people a little bit.

The previous quote shows that the participants appreciated the opportunity to learn from their peers through the discussion forum, thus providing evidence of collaborative engagement as also evidenced in literature (Lai, 2012; Rothstein et al., 2023; Weil et al., 2011). Accounting students often "do not have a lot of exposure in [their] degree to where [they] learn from each other" (P5). The discussion forum was effective in making students realise that people have different perspectives ("different thinking styles" (P8))

which could be valuable on a complex topic.

Although it could be argued that students should be precluded from reading others' comments before making their own, the settings of the discussion forum tool on the university's learning management system did not facilitate this. However, many students still preferred to first post their own comment before reading (and commenting on) those of others. One participant mentioned that she "went to the discussion forum and read everyone else's stuff after [she had] written [her] answer on those topics" (P4), but then noticed that the other students had focused on aspects that differed from her own, and then interrogated these differences. While the aforementioned usage of the discussion forum aligned with the intended usage, the settings of the discussion forum also allowed students to utilise the discussion forum in other ways. Participant 5 explained:

[T]he second discussion forum (with the chapter 2 stuff): I was really struggling with the content of that. I did not really understand much, but when I actually went on to the discussion forum and saw other people's responses and then it started piecing together because of other people. So, I think a big element of learning from each other as well, which I really did enjoy.

"[S]ometimes people gave some practical examples ... [focusing on] the bigger picture, [making the] big words in the textbook easier" (P6) for other students. Rothstein et al. (2023) also noted that online discussion forums facilitate students' better understanding of challenging content by allowing them to learn from their peers. In time, the discussion forum became "a safe space" (P3), as was also noted by Brink (2023). It fostered social and emotional engagement (made it "a little bit more personal, especially responding to someone's post" (P8)). It "was still formal but it wasn't the lecturer/student formal, it was almost like you could have a conversation" (P11). The discussion forum allowed students to see "the common thread ... where everyone is saying the same thing and then you know you are on the right track" (P5). One participant mentioned that the discussion forum was especially effective in the online space. However, "in a class setting and [when] there's an authoritative figure in the front, [students] just don't engage as much" (P8).

Making the discussion forums count for a small portion of students' final marks was effective in drawing previously unheard voices into the conversation ("if it wasn't compulsory, I would have never had a discussion forum" (P3)), showing that assessing the discussion forums ensure optimal participation in the activity in line with the view of Boud et al. (1999). While the discussion forums were spread out over the period, they related to specific chapters of the textbook that students had to read before posting their comments. One participant stated that this was positive pressure as "you've got to say something and even what you're saying, must make sense, because we will know whether you read the material or not based upon what you're saying now" (P9). The respective forums acted as deadlines and signalled what had to be completed by when; it "force[d students] to do the work of the day" (P1). This provides evidence that the discussion forums encouraged behavioural engagement; they were "a milestone and a motivator, you've got to get the stuff done" (P9). The group dynamic driving the discussion forum worked well, as students "know other people are also reading ... and ... are also going to contribute" (P9). This was seen as extrinsically motivating, because if others are contributing, this pressurises individual students to also read the textbook and contribute on the discussion forum. Rothstein et al. (2023) also found that students experience a sense of group cohesion when interacting on discussion forums.

Two types of questions were included in the discussion forums with some being more personal, scenario-based, applied or open-ended (with no correct answer), while others were more contents-driven and theoretical (where a correct answer is available). In the first interview, the participant stated that more applied questions should be included as discussion forum questions, with no or very few theoretical questions. Participant 1 mentioned the following example of how discussion forum 3 ("comment on some of the main differences between quantitative and qualitative research methods") could be adapted to make it more subjective:

Giving us a random idea, so you want to research into phone habits at [the university], what would you as the researcher choose? ... It can be both quant[itative] and qual[itative], but at least then you need to justify it and start writing about it and it's more application.

However, most participants voted for a balance of applied and theoretical questions on the discussion forum (keeping the current allotment of "both more challenging questions and more straightforward ones" (P2)). Participant 3 stated that this is because "the discussion forum was created to give back what we've read and then to think a bit further about it". Despite English not being the first language of many of the students in the class, they are, nonetheless, completing their studies in English. While studying accountancy subjects in English may be challenging for these students, research argumentation and learning to express opinions is even more so. The questions were initially "so complex, you almost scare people off, where if the first question is doable, then you're like okay, I can attempt a second one" (P3). The discussion forums generally take place in the first two weeks of the year, when the students might still be a little uncomfortable with each other, their work and their English expression skills ("[w]e don't even know how to form an argument yet"). These findings agree with those of Castro et al. (2021) and Rainsbury and Malcolm (2003) who assert that discussion forums are especially useful for students who were not first-language English speakers, as they provide an opportunity to analyse the comments of other students and take time to prepare their own comments and replies.

Participant 3 explained that she "was terrified of those open-ended questions" adding that she drafted her response in MS Word prior to posting it on the discussion forum. As "[t]he discussion forum was already a big challenge to [students]" (P3), the signal it sends should rather be: "[R]ead what you've read and bring it to the table, we are all students, you know, just bring what you have" (P3). If forum questions were all scenario-based, there is likely to be unhealthy competition among students, instead of them encouraging one another in this endeavour (where "everyone is like, great comment, I agree, which is what you want" (P3)).

The applied or opinion-based questions taught students "how to argue, to start an argument and to express [themselves]" (P4), all of which are important skills in research writing. It also allowed students "to see other people's viewpoints and then engage on that" (P9). For applied or opinion-based questions to serve their purpose optimally, it was advised that educators should create "the understanding that there is not necessarily a right or wrong answer" and "that there are different interpretations of the same solution" (P9). Applied or opinion-based questions and the resultant debate "informs your own thinking and ... forces you to grapple with the

content” (P9). However, not all students are equally motivated to engage and might make comments that are unhelpful or misleading which “defeats the purpose ... because we are now engaging on incorrect philosophies”. [Rainsbury and Malcolm \(2003\)](#) also found that accounting students were sometimes critical of the quality of posts on the discussion forum. As such, it is important that the educator (as authority figure) also provides input on the more applied or opinion-based questions (either on the forum or in class).

The more theoretical questions provided a respite from the applied questions and made students feel safe as they “like right or wrong answers” (P5). Participants 6 and 8 stated that they appreciated the question on differentiating between quantitative and qualitative research, as this ensured that they had a solid understanding of the differences (“I have typed the difference myself, and I also saw two other people’s comments, or I’ve read a lot of the discussion group, so now I’m sure that I know the difference” (P6)). Participant 9 agreed and stated that the theoretical questions “provided some sort of clarity because now you understand did you read this properly, did you actually understand what you read”. The fact that students posted very similar answers to the theoretical discussion forum questions made it difficult for peers to reply to these comments. Participant 11 explained:

I quite liked having both [types of questions]. I think with the quant versus qual type question ... especially if you’re not the first one posting, you think oh my gosh, like what can I say that’s different. So that was tough. But it does, it gives you a confidence boost, and I think especially when you have a week where you feel like you’re [talking] in a different language, I think it really does help, just having something where you can look at the textbook and say okay, it’s there, it says that. But on the other hand, I also really liked having the deeper questions. I think it also makes you bond with your team members more.

The previous quote also emphasises the social engagement that may be facilitated by utilising applied (or opinion-based) discussion forum questions.

5.2. Peer review

Aligned to the findings of [Malan and Stegmann \(2018\)](#), most participants believed that the peer-review process was beneficial as it allowed them to receive feedback on their writing and referencing prior to their work being graded. Participants welcomed feedback (“I was so accepting to input” (P3)) and appreciated that the feedback was speedy (“I really enjoyed getting peer reviewed because it was also instant” (P3)). Moreover, the feedback was encouraging and motivating as “everyone was ... friendly” (P11) and this provided evidence of emotional engagement through the peer-review process. One participant also mentioned that accepting criticism is an important skill that is developed through the peer review process, as asserted by [Ellis et al. \(2015\)](#).

Students reported that they found it helpful for an objective reader to express an opinion on whether their input makes sense. When you are writing you “get so engrossed in it that you can’t really objectively see: does the sentence make sense or not” (P1). Examples of feedback received included alternative words suggested, spelling errors, identification of unclear sentences, and advice about using linking words. The usefulness of the feedback was, however, dependant on the writing skills and effort made by the student reviewing the input. Some participants stated that they did not really benefit from receiving review comments. [Muamaroh and Pratiwi’s \(2022\)](#) study also reported dissatisfaction with peer feedback received in certain circumstances.

Many participants felt that they were too inexperienced to offer quality peer feedback (“I think I benefitted more from someone peer reviewing mine than me peer reviewing someone else’s” (P2)). According to [Ballantyne et al. \(2002\)](#) and [Muamaroh and Pratiwi \(2022\)](#), students reported a lack of confidence in their abilities to peer review. Participants in the present study did not want to base their advice on their own perceptions and they were concerned that they might provide incorrect advice (“this is my first time doing this, so to give someone else advice is for me a bit like a bit of an imposter” (P2)). As stated by participant 1:

When I’m peer-reviewing myself, it’s difficult because I know I don’t know the correct way to do it. I’m also learning, so it’s a struggle for me to really give valuable input. So, I think hopefully it helped the other person, but for me personally, I don’t necessarily feel as comfortable just making comments and giving ideas if I don’t really know is this working or not. (P1)

However, students felt more at ease when they saw that the other students were making minor recommendations and comments (“he just said I need to put an ‘and’ in here, surely I can also do this, like it doesn’t have to be intense” (P3)). This observation can be seen as peer review bolstering students’ confidence in writing, a finding supported by [Tanjung and Sari \(2024\)](#). They also mentioned that having relationships within the group helped them feel more secure in doing the peer review (“we know who we’re with in the same group, we’re working for the same thing ... so any comment is welcome” (P3)) – a sentiment that indicates social and emotional engagement in the tasks. As students are “on the same level ... they can also provide similar advice” (P5) (as also indicated by [Tanjung and Sari \(2024\)](#)), meaning that they can more easily provide advice that would benefit a novice researcher.

Involvement in the peer-review process benefitted the students in several ways. Participant 3 stated that: “I think the first side when I peer reviewed, I almost more understood what I’ve written because it was in a different context”. It thus allowed students to reflect on their own writing (“contrast it with your own” (P9)). The process of peer review allowed students to develop “a critical eye” (P7) relating to the content, which is especially important as “there is not necessarily a right or wrong answer” (P9). Moreover, it helped students engage with the literature in greater depth and identify additional sources and theories they could employ in their own writing. Thus, in line with literature ([Liu & Carless, 2006](#); [Malan & Stegmann, 2018](#); [Pidduck & Bauer, 2022](#)), the peer review stimulated collaborative learning and helped students identify gaps in their own knowledge and writing practice.

Students realised that “people have different takes on” (P11) the assignment, which was “a good learning tool to ... know how to progress forward” (P5). Participation in the peer review provided ideas they could employ in their own writing (“take it back to your introduction and see if you can maybe do something similar” (P11)). These observations align with [Mulder et al. \(2014\)](#). This was especially helpful when there were certain areas or aspects that students were “struggling with” (P10). However, some balance was

also required, as students realised that they could not simply use everything another student had written but had to determine for themselves how it fits “with what [they] want to do” (P9).

The peer-review process was an effective time-management tool and it allowed students to benchmark themselves against the other students (aligning with [Dochy et al. \(1999\)](#)). As stated by Participant 6, “I have 12 pages, they have seven, okay, we’re still on track”. It also created an opportunity to become acquainted with their fellow group members (“it was more of a bonding experience for us” (P11)). Reading the introduction and literature review of other group members created an awareness that they would later “need to converge [their] styles” (P8) in the results section (which is produced by the group as a whole). As a group they were not merely trying to point out other people’s errors but were collaborating to improve the overall product of the group and its members (“we are just trying to help each other, getting research to the next level” (P3)), and this evidences collaborative engagement. Participant 8 mentioned that the peer review facilitated the identification of strong arguments and then they helped “each other build strong arguments like that” – thereby improving the quality of the products delivered by the group (as individuals and as part of a group). The findings of the present study thus contradict the idea, mentioned by [Willey and Gardner \(2010\)](#), that competitive students might withhold constructive feedback when peer reviewing in fear that their feedback could increase a peer’s mark above their own. The collaborative spirit evidenced by the participants in the present study might have resulted from the fact that 50% of the marks in the research module was awarded for group work; as such, the peer review could have been viewed as strengthening the eventual group product. The group work in the module will be considered next.

5.3. Group work

Participants felt that the group work in the module facilitated the development of teamwork skills and allowed students to learn from their peers (“you can benefit from each other” (P6)), which is indicative of collaborative engagement. This sentiment echoed the findings of [Kelly et al. \(2023\)](#) that group work exposed students to new ideas, facilitating insight into the work. Participant 6 also noted that they made notes during classes and then discussed what they learnt. Participants often spoke about organically generating ideas and allocating work (“sort of proposing ideas ... ask them what their preferences are, and then it just kind of went from there, one person to the next person, and the next person would say we can do this” (P7)). This indicates an effective distribution or delegation of roles and responsibilities within the group, contradicting literature ([Chang & Kang, 2016](#); [Roberts & McInerney, 2007](#)). The fact that the group comprised of committed postgraduate students aided the group work (“at post-grad level, those students generally are interested in what they’re doing” (P9)), and little social loafing was evident.

Participants were asked to comment on their experiences in terms of online versus in-person group work as they were (mostly) allowed to choose the mode in which they conducted their group work. Participant 11 stated that she regarded online and in-person group work as equally effective (“once we’ve had the chance to meet face-to-face, they still prefer to maybe do their work online” (P11)). Participant 1 noted that they “thought [they] would just work online, but ... always met in person”. Some students preferred in-person group work as it ensured that everyone was engaged (“I think it’s easier to see: is this [person] thinking about the work or is he just on his phone, not caring about what’s going on” (P3)), enabled rapport between the students, facilitated conversations and sharing between diverse people (“there is a better back and forth” (P5)), minimised misunderstandings and thus made group work more effective and efficient (“it’s quicker, it’s not a slower process” (P3)). These observations align with literature ([Chang & Kang, 2016](#); [Smith et al., 2011](#)). Participant 3 described their in-person group work strategy as follows:

The one would type, ...the other one would do research and the other one would just be sitting and thinking and bouncing off ideas. I think it’s very difficult to bounce ideas off [online] because you can’t see each other’s attitude, you can’t see if this person thinks it’s a good idea ... So I really find that it’s more focused, and there’s not a lot of distractions.

MS Teams was employed by the students for online group work. Scheduling Teams meetings and collaborating on Teams documents was viewed as effective and efficient by participants. As stated by Participant 8, this type of online collaboration prepared them for their careers (as also evident in [Kelly et al. \(2022\)](#)):

I love the Microsoft Teams, that we can respond or like that we can read their stuff and we can respond to each other. And that we can send each other documents there. I just felt like first of all it’s quite professional, you know, like we’re not like whatsapp-ing and e-mailing each other things the whole time; it’s like one place we can find everything together.

Some participants reported that they found online group work more challenging than working in person (as also reported by [Smith et al. \(2011\)](#)). Participant 9 mentioned that online group work might cause some group members to procrastinate and miss deadlines, as they may feel less connected with other group members and thus less motivated to perform, thereby providing evidence that in-person group work potentially facilitates both social and behavioural engagement.

The groups’ first meeting was online as the students were not yet on campus. Some participants mentioned that this was difficult (“I don’t really know any of the other people in the group, so it’s difficult to for the first time get the team dynamics going while you’re online” (P1)). In the first online meeting, participants were unsure whether they should prioritise making “a personal connection or ... go directly into the work” (P7). However, they acknowledged that this was “part of the learning experience” (P1) and that it developed their communication and teamwork skills and prepared them for the workplace. For some students, especially those who struggle with (social) anxiety, having the first meeting online helped lessen the emotional toll of the meeting (“with anxiety, you always feel safer in your own space” (P8)) and made it less awkward. [Kelly et al. \(2023\)](#) noted that group work could lead to discomfort at the initial meeting. One participant mentioned that the introductory session during which students had to introduce themselves online in the large group made it easier to engage in the first online meeting in their smaller groups as they already had some background

information (“would have been a bit dysfunctional, but as you introduced everyone it really did make a difference” (P5)). This emphasises the value that some students place on the social and emotional engagement in group work, and that the structuring of the research module created opportunities for this type of engagement for those who prefer it.

After meeting in person and building rapport (social and emotional engagement), subsequent online meetings were easier (“even now when we meet online, the teamwork just flows because we know each other” (P1)). Some groups chose to meet online because it was time efficient (“you just schedule a call. It takes 10, 12 min” (P2)). Online meetings were often brief and to the point. Participant 5 felt that not knowing your fellow teammates was not a barrier to group work, as their “main focus was just the academic part of it”. This provides evidence that different students value differing aspects of group work: for students who are more task-orientated, and less people-orientated, doing group work without being familiar with your group members (and having social and emotional engagement) might not be problematic. The fact that groups could choose their mode of group work (online versus in person) allowed groups who preferred less social engagement to mostly work online and focus on the task at hand, while other groups choose to meet in person to ensure optimal social and emotional engagement. In this way, students were also prepared to enter the post-COVID world of work, where the flexibility provided by online collaboration needs to be managed, to ensure that group objectives are achieved while the needs of group members are respected.

6. Prospective changes to peer learning

No changes were planned regarding the peer review and group work which appeared to appropriately facilitate engagement and skills development. While it was clear that students benefitted from the discussion forums, it was also apparent that some students preferred applied (or opinion-based) questions while others preferred a mixture of applied and theoretical questions. It was decided that amendments would be made in 2024 to all questions that previously required purely theoretical answers so that students have a choice of theoretical and other questions (such as applied or opinion-based questions). The amended discussion forum questions are presented below.

Discussion Forum 3. After reading Chapters 3 to 5, please answer one of the two questions provided.

- (i) Theoretical question: Comment on some of the main differences between quantitative and qualitative research methods.
- (ii) Applied question: Consider a specific research question that puzzles you (if you don't have an example, use the following: “Is there a relationship between leverage and company performance?”), and then explain how you would address the research question using both quantitative and qualitative data/methods (i.e. using two different methods). Also indicate which method you would prefer using.

Discussion Forum 5. Relating to Chapters 10 and 11, please answer one of the three questions provided, relating to surveys/questionnaires.

- (i) Theoretical question: Which steps can a researcher take to increase the response rate pertaining to their survey?
- (ii) Opinion-based question: Please provide your opinion on the usefulness and/or ethicality of offering an incentive (e.g. lucky draw prize) for completing a research questionnaire.
- (iii) Applied question: If you wanted to survey company directors/managers on using leverage to increase company performance, which questions would you include in this questionnaire?

Discussion Forum 6. Relating to Chapters 15 and 16, please answer one of the two questions provided.

- (i) Theoretical question: (i) What is the difference between descriptive and inferential statistics, and (ii) what does the p-value (significance level) in inferential statistics mean?
- (ii) Applied question: Using the regression output provided, explain the relationship between the dependent variable and the listed independent variables (an example of regression output was provided).

7. Conclusion

Peer learning could contribute to student engagement and learning in accounting modules whilst also developing students' soft skills (such as communication and teamwork skills). This action research study assessed the efficacy of discussion forums, peer reviews and group work being included in a postgraduate accounting research module. Semi-structured interviews with students were employed to generate data on the usefulness of the peer-learning strategies. Generally, participants believed that peer learning enhanced engagement at all levels – social, cognitive, behavioural, collaborative and emotional.

7.1. Main findings

While not all students engaged comfortably at all levels (some students preferred not to engage at the social and emotional level when learning and conducting group work), the group work allowed flexibility in terms of when and how group work outcomes were achieved. While some groups preferred to conduct their work in person, others preferred optimising their time usage by meeting online. The online collaboration tool was MS Teams and this enabled ease of online interactions while simultaneously helping students

to develop skills for the workplace. Seen holistically, the group work in the module developed students' verbal communication and teamwork skills and fostered collaborative engagement.

The peer review process allowed students to practise giving and receiving criticism – both of which are valuable workplace skills. Peer reviewing facilitated cognitive engagement (enhancing writing skills), behavioural engagement (taking cognisance of when a piece of writing had to be completed), collaborative engagement (students sought to improve the work of others and the group), and emotional engagement (feedback was provided in a professional yet friendly way, fostering a sense of achievement and wellbeing).

The students were initially wary of posting on the discussion forums as it seemed exposing but they soon grew accustomed to this. They valued the discussion forums for their behavioural engagement as they provided a timeline on when a specific reading had to be completed. Posting an answer on the discussion forum also necessitated cognitive engagement as students had to understand and apply the knowledge gained from reading the textbook to provide a considered answer. Moreover, the discussion forums fostered a sense of social engagement as students understood that other students were also reading and taking part in discussions thereby creating a sense of community during a period of asynchronous interaction.

7.2. Implications for practice and theory

Overall, the findings demonstrated that peer-learning strategies are extremely beneficial for accounting students' learning and engagement and contribute significantly to their professional readiness. This study contributes to the existing literature in accounting education by illustrating how peer-learning strategies could be employed in postgraduate studies and in accounting research modules – a previously under-researched area. Educators in these types of modules could apply the findings and recommendations in their own modules to ensure constant revision and improvement and thereby enhance student engagement, learning and development.

In some ways, students' experiences of peer learning aligned with literature. For example, [Ballantyne et al. \(2002\)](#) and [Muamaroh and Pratiwi \(2022\)](#) also reported that students lacked the confidence to peer review. This study also identified various advantages of discussion forums aligning with the literature, including that discussion forums facilitate learning ([Brink, 2023](#); [Weil et al., 2013](#)), allow students to develop their own opinions and articulate their understanding of the material ([Weil et al., 2011](#)), and provide valuable exposure to the opinions of other students, which encourages critical review of information ([Kelly et al., 2023](#); [Weil et al., 2011](#)). In other cases, the findings contradicted literature. For example, the effective distribution or delegation of roles and responsibilities experienced within group work reported in this study contradicted previous studies ([Chang & Kang, 2016](#); [Roberts & McInnerney, 2007](#)). This study also contradicted the idea that competitive students might withhold constructive feedback when peer reviewing in fear that their feedback could increase a peer's mark above their own ([Willey & Gardner, 2010](#)).

This study provided new findings that added to the body of knowledge, including those relating to the type of questions that should be posted on discussion forums. While some students preferred more applied or opinion-based questions, others found such questions demoralising and preferred a mixture of applied and theoretical questions. In response to the findings of this study, it is proposed that discussion forums should strike a balance between applied questions (that do not have one correct answer) and theoretical questions (for which a model answer could be provided). Also, to foster a sense of safety and allow students to develop argumentation and communication skills at their own pace, it is recommended that some discussion forums provide students with a choice between applied (or opinion-based) and theoretical questions. Providing students with a choice of the type of question they answer caters for students with different personalities, learning styles and levels of English proficiency. The recommendation to provide choices in discussion forum questions could be particularly important when a large number of students in a module are second-language English speakers, as these students might need more time to prepare an answer to post on the discussion forum. In the process of compiling their answers, these students are practising crucial communication skills.

7.3. Limitations and ideas for future research

Some limitations are noted relating to the study. It was conducted at one university in a single country and might not be representative of all accounting research modules globally. However, it does provide a developing country perspective on the issue which, to date, has been lacking in existing research. Moreover, the perspectives of students were only gathered at a single point in time and not over an extended period. The action research design of the study does, however, show the evolution of the module over time. Future studies could consider the effectiveness of peer learning at other universities or in other settings.

CRediT authorship contribution statement

Gretha Steenkamp: Writing – review & editing, Writing – original draft, Methodology, Data curation, Conceptualization. **Sophia Magaretha Brink:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis.

Declaration of Competing interest

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Data availability

The authors do not have permission to share data.

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