RESEARCH ARTICLE

Exploring first-year engineering student perceptions of peer-led study groups in a Global South context

Explorer les perceptions des étudiants de première année en ingénierie sur les groupes d'étude dirigés par les pairs dans un contexte du Sud global

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ABSTRACT

The purpose of the study is to explore the advantages of study groups for first-year engineering students in a challenged Global South context. The research aims to explore how the support and resources provided by the peer-led study groups can help students cope with the stressors and challenges that are often associated with the transition to university and the demands of an engineering programme. Educational institutions prioritise student development, yet many student initiatives overlook student agency and that understanding students' learning approaches is necessary for effective support initiatives. A total of 40 registered engineering students, who voluntarily enrolled in the peer-led study groups, were the subjects of this study at the University of Pretoria. The research adopted a qualitative approach and aimed to explore the advantages of study groups. Data were collected through interviews and surveys with both students and study group leaders to gain their respective views on the strengths and areas for improvement of the learning community experience. The research was conducted using qualitative methods to gain a deeper understanding of students' experiences with study groups and the associated benefits. Through participation in study groups, students benefited from the support of their peers, opportunities for alternative problem-solving methods, and improved academic performance. Furthermore, the smaller group size and collaborative nature of these groups created a supportive and empowering learning environment, where students felt confident to ask questions and engage in meaningful learning opportunities.

KEYWORDS

Peer-led study groups, Global South, engineering students, qualitative research, social integration, academic performance, collaborative learning

RÉSUMÉ

L'objectif de cette étude est d'explorer les avantages des groupes d'étude pour les étudiants de première année en ingénierie dans un contexte difficile de l'hémisphère Sud. Cette étude vise à déterminer comment le soutien et les ressources offertes par les groupes d'étude dirigés par des pairs peuvent aider les étudiants à faire face aux facteurs de stress et aux défis qui sont souvent associés à la transition vers l'université et aux exigences d'un programme d'études en ingénierie. Les établissements d'enseignement accordent la priorité au développement des étudiants, mais de

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nombreuses initiatives en faveur des étudiants ne tiennent pas compte de l'action des étudiants et pourtant il est nécessaire de comprendre les approches d'apprentissage des étudiants pour mettre en place des initiatives de soutien efficaces. Cette étude a été menée à l'Université de Pretoria auprès de 40 étudiants inscrits en ingénierie, qui se sont volontairement engagés dans des groupes d'étude dirigés par des pairs. Cette étude a adopté une approche qualitative qui visait à explorer les avantages des groupes d'étude. Les données ont été collectées par le biais d'entretiens et d'enquêtes auprès des étudiants et des responsables des groupes d'étude afin de recueillir leurs points de vue respectifs sur les points forts et les aspects à améliorer concernant l'expérience d'une communauté d'apprentissage. L'étude a été menée à l'aide de méthodes qualitatives afin de mieux comprendre l'expérience des étudiants en matière de groupes d'étude et les avantages qui en découlent. En participant aux groupes d'étude, les étudiants ont bénéficié du soutien de leurs pairs, de la possibilité d'utiliser des méthodes alternatives de résolution de problèmes et d'une amélioration de leurs résultats scolaires. En outre, la taille réduite des groupes et leur nature collaborative ont créé un environnement d'apprentissage favorable et stimulant, dans lequel les étudiants se sentent à l'aise de poser des questions et de s'engager dans des activités enrichissantes d'apprentissage.

MOTS-CLÉS
Groupes d'étude dirigés par les pairs, Sud global, étudiants en ingénierie, recherche qualitative, intégration sociale, performance académique, apprentissage collaboratif

Introduction

The objective of the study is to examine the benefits of participating in study groups for engineering students in a challenged context. Engineering students in a South African higher education context face a variety of challenges including insufficient mathematical preparation in high school, diverse economic and academic backgrounds, and difficulties with social integration (Surr, 2019; de Klerk, 2021; Wangenge-Ouma, 2021).The study groups were introduced by academic advisors in the engineering department at the University of Pretoria to address the high failure rate of the Mechanics first-year module and improve graduation rates, while also providing social support and connection for students.

The South African higher education sector is in crisis (de Klerk, 2021), with matriculants who are woefully unprepared for university education in terms of literacy, transition (Schreiber et al., 2018), and social integration (Scott et al., 2007; Tiroyabone & Strydom, 2021). This pressure highlights the need for effective support and interventions to aid students in their transition to university and to promote academic success and mental well-being. Study groups represent a promising intervention for enhancing academic outcomes among students (Zimmerman-Oster et al., 2009; de Klerk, 2021; Strydom & Loots, 2020).

Study groups are defined as a group of individuals who share common academic goals, interests, and engage in collaborative learning activities, such as discussing course material, working on projects, and providing peer support (Lenning et al., 2003; Mlynarczyk & Babbitt, 2002). Study groups are rooted in the notion that learning is a social activity and students thrive in supportive environments that foster active participation and exchange of ideas (Mlynarczyk & Babbitt, 2002; Kinzie & Kuh, 2017). Study groups have been shown to improve student retention, academic performance, and overall well-being (Kendall et al., 2023; de Klerk, 2021; Strydom & Loots, 2020).

Although many studies have been done on learning in developed countries, few studies have been conducted in developing countries like South Africa (Kapp & Bangeni, 2017; de Klerk, 2021; Lemmens, 2015; Tiroyabone & Strydom, 2021). The study is particularly relevant in the South African higher education context, where students face a variety of challenges including lack of preparation, diverse economic and academic backgrounds, and difficulty with social integration (de Klerk, 2021; Bangeni & Kapp, 2017; Tiroyabone & Strydom, 2021). Although there have been strong calls for more support services from individuals working in the field, effective student support within a Global South context needs a solid, evidence-based foundation to increase the legitimacy of advising techniques for students in a challenged context (Surr, 2019; de Klerk, 2021; Wangenge-Ouma, 2021; Tiroyabone & Strydom, 2021).

Numerous funding initiatives make university more accessible for lower- and middle-class families with the goal of increasing the likelihood that every family will have a graduate. The graduation rates, however, are still low. Only 29% of students who registered for an undergraduate degree in 2011 graduated within the requisite time frame, according to Statistics South Africa (2019). The need for additional, often co-curricular, student support at university level is prevalent throughout the South African and global higher education sector (de Klerk et al., 2017; Lemmens, 2015; de Klerk, 2021). Typically, university support programmes include workshops or one-on-one consultations that coincide with academic coursework. These resources are typically introduced to students during first-year orientation or through the university's online resources. While these programmes are accessible to all students, their primary aim is to aid underprivileged students who may lack certain skills from high school. Regrettably, academic interventions of this nature are subject to challenges such as inconsistent attendance, insufficient planning and training, and insufficient time to develop profound cognitive and linguistic competencies (Friedman et al., 2022; Thompson & Vance, 2001).

Students from South Africa come from a context that is rife with socio-political issues, inequality, and poverty. These challenges can impact the academic success and mental health of South African students in higher education. Support and resources are important to help them overcome these barriers and reach their full potential (de Klerk et al., 2017; Tiroyabone & Strydom, 2021). Additionally, first-year students, first-generation students, and students from low SES backgrounds are more likely to drop out of school than are students who have completed their first year, come from higher SES backgrounds, or have parents who have completed tertiary education (Bitzer, 2009; Tinto, 2017). Universities and the state have agreed that students need more than access and that in the agenda of 'funding' there are other goals such as mobilising human talent and addressing the developmental needs of the students while considering the challenges that they individually face socially and culturally (Badat, 2010). Menon and Castrillon (2019) noted that, since 2010, Higher Education Summits were calling for curricula to be aligned with student expectations and not only political agendas such as funding and access to poor students. The gap was identified that funding is not the only way to assist a student to become a graduate (Kapp & Bangeni, 2017). Some argue that access does not give much more than a 50% probability of graduating, and for NSFAS-

supported students a 30% to 40% probability (Scott, 2016). This is problematic and needs to be addressed.

It is important to have a comprehensive approach to addressing the needs of low- and middle-class students. This involves not only providing financial support, but also addressing social and cultural barriers and providing a supportive environment that promotes academic success and personal growth. This can be achieved through a combination of programmes and initiatives, such as academic support, mental health services, financial assistance, career development, and study groups (Scott, 2016; de Klerk, 2021). It is crucial for universities and funders to take a student-centred approach to support initiatives. This means considering the student's perspective and understanding their individual experiences and needs. By doing so, institutions and funders can tailor support programmes to better address the unique challenges that each student faces and empower students to take agency over their own education journeys (Menon & Castrillon, 2019).

There are two main directions that education researchers and university planners have taken: the first is concerned with enrolment and retention rates, and the second direction looks at what constitutes a good graduate (e.g. DHET, 2020; National Planning Committee, 2013). Both directions considered what former graduates have done to achieve, as well as what kind of support interventions worked and why. Research on retention, rather than access, and characteristics that enhance timely graduation, as opposed to graduating in general, began to take precedence in their strategic goals (DHET, 2020). Most student support programmes focus on a specific experience, such as first-year adjustment or job preparation (de Klerk, 2021; Tiroyabone & Strydom, 2021). Despite the implementation of several well-planned projects, it's possible that something is being missed. Without this focus on student agency and understanding, support initiatives may not be as effective in promoting student success and transformation in higher education (Kapp & Bangeni, 2017).

The universities may respond defensively by insisting that the students use the support services they provide. While students must be accountable for their involvement in student initiatives, it is not a straightforward process, where students just use what the institution offers. Improving the accessibility of support programmes and interventions is a crucial step in helping students overcome the barriers they face and achieve their full potential (Baijnath, 2016; Bangeni & Kapp, 2017). This can involve making support programmes and initiatives more visible and easily accessible, such as through online platforms or on-campus events (Nthontho, 2018). By making support programmes and interventions more accessible, universities and funders can help students make the most of the resources and support available to them and improve their chances of success in higher education.

Within university settings, interventions or support programmes are frequently implemented to enhance academic skills, such as through tutoring, mentoring, and academic advising. While these terms are often used interchangeably, they possess distinct nuances. According to Griffin and Griffin's (1997) account, tutoring entails collaborative learning, in which a fellow student assists others with challenging course

aspects. This pedagogical approach offers several benefits, such as fostering social connections and supplementing lectures, while also affording students the chance to cultivate teaching and leadership skills. Nonetheless, the effectiveness of tutoring can vary for some students, particularly those enrolled in the Faculty of Engineering, Built Environment & IT (EBIT) programme, as tutorials are often conducted in large groups that do not facilitate students' inquiries. This study aims to explore the benefits of creating smaller study groups to generate more supportive and comfortable environment for students to interact, inquire, and learn from each other.

Implementation of the study group intervention

Collaboration between academic advisors, lecturers, and peer advisors facilitated the creation of these peer-led study groups with convenient scheduling and locations for students. According to Griffin and Griffin (1997), tutoring involves collaborative learning where a fellow student helps other students with challenging aspects of a course. This approach has multiple benefits, including creating social connections and complementing lectures. Research has shown that students can benefit from these interventions in various ways. For instance, students can receive academic support to adjust to university life and enhance their academic performance. However, there is still uncertainty regarding the efficacy of these interventions in promoting success and reducing drop-out rates. To this end, ongoing research is exploring additional non-academic skills that students require to succeed in their studies (de Klerk, 2021).

Academic advisors frequently collaborate with lecturers to solicit feedback on the effectiveness of the study group intervention. Lecturers have expressed that both the consultations and university tutorials are severely underutilised, with students often opting to hire older peers for last-minute cramming sessions before tests. Unfortunately, these brief tutorials are typically insufficient in preparing students for the module's demands. A plausible explanation for this phenomenon is that lectures and tutorials adhere closely to the study guide, leaving students who have fallen behind feeling too timid to ask questions when they encounter difficulties. To address this challenge, study groups were introduced, which were designed to be student-led and easily accessible to encourage participation and engagement among students. The role of the study leaders was not to be tutors, but rather facilitate the formation of smaller interactive study groups were students could help each other out. The study groups were also only one hour per week as to encourage student attendance, as engineering students already have jam-packed time-tables.

The study leaders were chosen from among the top performing students in the module, and were given additional training on how to provide effective support and guidance to their peers. The study groups met regularly throughout the semester, and provided a space for students to work together on challenging coursework, ask questions, and receive support from their peers. The academic advisors reached out to the Mechanics lecturers and asked them to email the students to inform them about the study groups. Academic advisors organized large venues for the students to meet on Mondays, Tuesdays and Fridays. Each study group met 5 times throughout the semester

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with 10 to 50 students attending each session. The students would then break into smaller groups of 5 to 6 students and work on tutorial problems and then each smaller group would present to the larger group. Three to five study leaders were present at each study group session and were there to facilitate and support the smaller break away groups.

Methodology

The evaluation on the impact of study groups was conducted post-intervention and used a qualitative methodology. Data were collected through online surveys, which were completed by both the study leaders, as well as participating students. Additionally, qualitative data were gathered through focus groups conducted with the study leaders post-intervention, which were recorded and transcribed for further analysis. The data collected were then analysed using a thematic analysis approach to uncover patterns and themes related to the benefits of participating in study groups.

Evaluation of the intervention

Thematic analysis, as described by Braun and Clarke (2006), was employed to examine and interpret the feedback obtained from online surveys completed by both the study leaders (11 students) and participating students (16 students). The online survey consisted of questions that sought to gauge the students' perception of the benefits of the study groups, the ways in which they benefited, if their grades improved, and their recommendations for improving the study groups. Additionally, focus groups were conducted with two of the study leaders to obtain their feedback on what worked well and their suggestions for enhancing the learning community experience in the future.

Thematic analysis involved identifying recurring patterns of meaning across the interviews. Themes related to the participants' and study leaders' experiences of the benefits and limitations of the study groups were documented. The data analysis process involved the identification of possible themes, coding of data, sorting of codes into themes, reviewing and refining the themes, and describing and analysing the themes (Braun & Clarke, 2006). The validity of the data interpretation was strengthened by having two independent researchers analyse the data, and their discussions on the identified themes culminated in consensus on the interpretation. The interpretation of the data was further validated through member checking (Gravetter & Forzano, 2018), where the results were shared with the participants in a follow-up session. The participants concurred with the researchers' interpretation of the data.

Ethical considerations

The present research was carried out in accordance with ethical principles and was granted approval by the Ethics Committee, including obtaining ethical clearance from the Research and Ethics Committee at the University of Pretoria. Participants and their respective guardians provided written and verbal consent to participate in the group intervention and the corresponding research study. The implementation of the group intervention was closely monitored by academic faculty student advisors (who are

all registered psychologists) to ensure compliance with ethical guidelines. Adequate measures were taken to maintain the confidentiality of participants throughout the research process.

Results

Processes that were helpful

Both students and study leaders reported on the positive impact of peer social connection on learning, especially for a challenging module like Mechanics. Students highlighted several key factors, including the assistance provided by classmates who understood the difficulties of the material and can offer relevant insight. The presence of these classmates created a more comfortable and supportive learning environment, where students felt empowered to ask questions and engage in meaningful learning opportunities.

One of the most notable effects of peer social connection on learning is the improvement of academic performance: 87% of students reported that participation in study groups had a positive impact on their grades. This can be attributed to several factors, including the opportunities for students to learn alternative problem-solving methods, interact with their classmates, and share their experiences. Furthermore, the presence of stronger students in the group provides a valuable opportunity for weaker students to model effective learning techniques and improve their comprehension of challenging concepts.

In addition to these benefits, students also reported that participation in these study groups increased their willingness to participate in future study groups and recommend such groups to friends. This can be attributed to the smaller group size, which fostered students' confidence and aided in comprehending difficult material. The collaborative nature of these groups created a sense of shared experience, which further enhanced students' engagement and motivation to learn.

Themes from online surveys and interviews

The post-intervention qualitative data analysis showed that the students who participated in the study group intervention reported an increase in their ability to form bonds within and across peer networks, utilise learning-community networks, and place a higher value on shared experiences with their classmates. Themes are outlined and verbatim quotes given to illustrate participants' experiences of the intervention. The main themes identified from the post- intervention interviews with participating students and study leaders were:

Theme 1: Peer social connection enhances learning

The utilisation of resources provided by social ecologies can vary greatly, as it is influenced by the perceived availability of both informal and formal resources (Ebersöhn et al., 2020). Thus, it is crucial for students to understand the value of social connectedness as a protective resource, particularly during times of academic stress related to a challenging course. The collaboration that took place in study groups not

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only aided in the comprehension of difficult concepts, but also highlighted the positive impact of social connection. By promoting the benefits of social connectedness, students could better understand the role of social support in their academic lives, as shown the in the following quotes:

> *The study group sessions were very helpful. The groups were fantastic and it was nice to work with others going through what you are going through and having that support.*
>
> *The choice of students to run the study groups was great.*
>
> *It is a good platform to help students help each other.*

Studies have demonstrated that peer mentorship can enhance not only motivation, but also provide balance to mitigate stress and burnout. Peer support, whether in the form of guidance or simply a listening ear, may aid in internal stress management or learning coping strategies (Freidman et al., 2022). Student-led networks necessitate the establishment and maintenance of productive partnerships among learners within the same peer group. The implementation of study groups facilitated the communication and interaction among students, resulting in a heightened level of peer connection and learning as evidenced by the following post-intervention quotes:

> *We challenged each other and helped each other.*
>
> *Working on the problems with my group helped me to grasp the material more easily.*
>
> *Coming together and helping each other with the work really helped me.*
>
> *All the leaders had different approaches and strong points, so we were able to give different ways to look at a problem.*

Theme 2: Sense of shared experiences

In addition to student's appreciation of the benefits of peer connection (working together on the module was easier than working on the module alone), students reported that participation in the intervention made them aware of shared experiences students went through. The realization that other students were facing similar difficulties in the module proved to be a valuable experience for the participants. By acknowledging the struggles of their peers, they gained a sense of support and empowerment.

> *You realise that you are not the only struggling so we could comfort and support each other.*
>
> *Learning what other students who have done the module before was insightful.*
>
> *Knowing that we weren't the only ones in the class gave us hope and kept us motivated to keep going.*

The findings of recent research reveal that engineering students frequently arrive at the university with a STEM-ego, characterised by a robust sense of academic self-efficacy. These high-performing high school students who pursue STEM programmes at university hold the belief that they do not require additional support. Nonetheless, this perspective can have adverse effects on their academic performance and their willingness to seek help. The results from this study highlight that these students are not familiar with failure, as they have been accustomed to receiving good grades in high school. For those students who struggle with this particular module, this can be a novel experience as they confront failure for the first time in their lives. Consequently, sharing similar experiences of difficulty with the module helped students feel less isolated and empowered them to persist in their studies, as seen in the following quotes:

> *I appreciated the fact that there were other people who found the module a bit tricky and were making an effort to do better.*

> *For some of these students it was their first time failing so it really made them lose hope, but for the students who stuck it through with the module, it really helped them to see other students also struggling.*

Theme 3: Small group size enhances learning

Many of the students entering South African universities are in diverse economic, academic, and psychosocial positions (Kapp & Bangeni, 2017). As a result, South African universities try many initiatives to support students holistically. Thus, there has always been an understanding of the need for holistic support (intellectually, ethically, culturally, socially, and even physically), but there appears to be a lack of understanding as to what that support would mean practically. Withering (2019) argues that students voices are usually absent from the discourse on student interventions despite these good intentions. In the engineering department various academic support is offered to students, however, lecture halls and even tutorials are often attended by many students. Students may be reluctant to ask questions in big groups which can interfere with their learning. Because the study groups broke into smaller groups, it was beneficial for students as they felt more comfortable to ask questions among peers.

> *Being helped by my classmates, they understand the struggle best and they can relate the most thus making it easy for me to learn from them and as I'm more comfortable around them I can ask as much as I want.*

> *Learning from other students who also find certain concepts difficult, because the lecturers don't always understand how difficult it is to grasp.*

Collaborative learning, where a fellow student assists others with challenging aspects of a course, characterises tutoring, according to Griffin and Griffin (1997). This approach offers various advantages, such as establishing social connections and complementing lectures, while also providing students with teaching and leadership opportunities. However, EBIT students frequently view tutorials differently, as they are often taught

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in large groups and do not provide an environment where students feel comfortable asking questions. Students reported that smaller study groups were more beneficial, as they felt comfortable asking questions and learning from one another, as shown in the following quotes.

> *Working in smaller groups helped us to see different ideas on how to tackle a problem.*

> *I enjoyed how we were all helping each other and giving each other some advice on how to tackle questions, that doesn't always happen in lectures and tutorials because the groups are too big and you feel shy to ask questions.*

Theme 4: Enhances students' willingness to engage with other student communities

In recent years, there has been a broadening of the discourse around student support initiatives to encompass not only the acquisition of academic skills but also the psychosocial dimension. As part of orientation, students are frequently encouraged to participate in student communities. However, there are challenges related to the use and accessibility of these communities, particularly for day students. Students in residence tend to have a stronger sense of community, as residences often organize study groups. Conversely, non-residential students may struggle to feel a sense of belonging. Students who were part of the Mechanics study group reported an increased understanding of the benefits of these communities, which, in turn, made them more receptive to participating in other student communities, as seen by the following quote:

> *I think the day students benefitted more from the study groups than the res students, because at res we have those study groups. For the day students it helped them a lot to have that support.*

> *They were very beneficial hence I highly recommend them, they should start from the beginning of the year for 2023 students.*

> *It really helped me, it made me realise that working in a group helps you to not feel alone. I wish they had study groups for every module.*

Discussion

In the realm of engineering education, academic support mechanisms such as tutoring and mentoring are pivotal, yet often traditional lecture halls and tutorials may not adequately meet the diverse needs of students due to their large size. This study underscores the advantages of breaking into smaller, peer-led study groups, which have been shown to significantly enhance the learning experience by fostering a more intimate and supportive environment where students feel comfortable to engage and ask questions. This aligns with the findings of Johnson and Riley (2021), who emphasise the supportive nature of peer interactions, particularly within the socio-cultural context of the Global South, guided by ubuntu principles.

The qualitative post-intervention interviews conducted in this study, along with thematic analyses, have helped to uncover patterns indicating the benefits of smaller, peer-led study groups. Students reported not only improved understanding and grades, but also an increased willingness to participate in and recommend such study formats. This suggests that these groups do more than just aid in comprehension; they foster a sense of community and belonging.

Furthermore, the presence of stronger students within these groups provided opportunities for peer learning, where less proficient students could emulate more effective study practices. This reciprocal educational environment not only improves academic outcomes but also embeds a sense of shared experience and mutual aid which is particularly beneficial in challenging modules like Mechanics.

The transformative potential of peer-led groups is further supported by the findings of Pointon-Haas et al. (2024), who highlight the role of social connectivity in academic resilience within the educational landscape of the Global South. As the pace of technological change impacts learning behaviours and expectations, the need for active learning strategies that place students at the core of their educational journeys becomes increasingly important (Christie & De Graaff, 2017; Arruda & Silva, 2021; Neves & Mead, 2021).

The findings of this study are twofold. First, they underscore the benefits of peer-led tutorial systems in creating a supportive educational ecosystem, which is instrumental in enhancing student learning experiences. This is particularly relevant in engineering education, where the complexity of modules often requires innovative approaches to student support and intervention. Second, the research introduces fresh perspectives on circumventing the constraints associated with traditional lecturing methods. This is achieved by highlighting the pedagogical benefits of integrating peer-led tutoring into the curriculum, thereby advocating for its adoption as a strategic measure to rejuvenate tutorial systems and address the diverse learning needs of students.

Limitations and recommendations

One limitation of this study is its reliance on self-reported data, which may introduce biases related to individual perceptions and may not capture all nuances of the study group dynamics. Future research could employ mixed-method approaches to triangulate data from qualitative interviews with quantitative performance metrics to provide a more comprehensive view of the impacts of peer-led study groups.

Moreover, while this study provides insightful perspectives on the benefits of small group dynamics within a single university, extending this research to multiple institutions would enhance the generalizability of the findings. It would be beneficial to explore how these peer-led groups function across different cultural and educational settings within the Global South to adapt and optimise these interventions accordingly.

Conclusion

In summary, this article reveals that participation in study groups may positively impact student well-being for engineering students in a challenging context, specifically in the

high-impact modules. The positive impact of peer social connection on learning is clear and well-documented. Through participation in study groups, students benefited from the support of their peers, were exposed to opportunities for alternative problem-solving methods, and their academic performance improved. Furthermore, the smaller group size and collaborative nature of these groups created a supportive and empowering learning environment, where students felt confident to ask questions and engage in meaningful learning opportunities.

Ethics statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board (or Ethics Committee) of the Faculty of Engineering, Built Environment, and Information Technology (EBIT) Research Ethics Committee at the University of Pretoria (EBIT/8/2023 and 18/04/2023).

Potential conflict of interest

The authors declare no known conflicts of interest.

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