PROGRAM RENEWAL: STUDENTS PERCEPTION ON CHANGES TO TEACHING PEDAGOGY IN AUDITING

N. D. Sexton*

https://orcid.org/0000-0002-5885-0441

R. Rudman*

https://orcid.org/0000-0002-3789-2386

*School of Accountancy
Stellenbosch University
Stellenbosch, South Africa

ABSTRACT

Accounting graduates are entering an uncertain, rapidly changing world that calls for the enhancement of the pedagogy to prepare them for their future world of work. Technical competence needs to be scaffolded with enabling (professional) competencies more than ever before and deep learning is required for students to apply principles in any context. With this in mind, the lecturers at a South African university disrupted (i.e., significantly changed) how a keystone topic in third-year auditing is taught; specifically by creating blended learning interventions for reflection, collaboration, communication, and ethical considerations not previously used in auditing education. This research presents the student perceptions about the appropriateness of these interventions.

Keywords: accounting education, pedagogy, scaling reflections

INTRODUCTION

The world of work that South African university accounting graduates enter is changing in the technology era. The future accountant faces an exciting yet volatile, uncertain, complex, and ambiguous (also known as a "VUCA") world driven by, *inter alia*, learning and cognitive technologies, automation, and the power of data (Coci 2020; Rudman 2020). Accountancy, like any other profession, is encountering a significant change in demands. Many of these demands are driven by the advent, or potential advent, of the Fourth Industrial Revolution, which is not only driven by technological change, but also social change (Coci 2020; Rudman 2020). Besides business needs changing, student needs are also changing, with an increasing need for personalised professional experience, calls for academia to better understand and respond to student needs, and a need for deep learning rather than surface learning to pass technical examinations.

To prepare the profession for these changes, the South African Institute of Chartered Accountants (SAICA) launched initiatives to review the way that training offices and universities prepare aspiring accountants for future challenges. The Certified Institute of Management Accountants (CIMA) has also embarked on a similar project and outcome of which a new competency framework was the result (CIMA 2014). Although these institutes have their own frameworks, their professional competencies are broadly structured around professional values and attitudes, as well as business, digital, relational, and decision-making acumen (SAICA 2021). Technical skills remain of the utmost importance to graduates and "*get them in the door*" (Low et al. 2016), but greater emphasis is placed on "*being more human*" by developing professional skills such as a grasp of ethics, lifelong learning, analytical and critical thinking skills, as well as communication and networking abilities to work effectively in a collaborative manner (Barac 2009; Crawford, Helliar, and Monk 2011; SAICA 2021). The training model for South African chartered accountants needs to include learning opportunities to learn and practise competencies and must set the groundwork for a lifelong learner with the ability to learn-unlearn-relearn (CA2025 2020). This model includes specialising in accounting at a tertiary institution (university), a three-year traineeship at an appropriate training office (i.e., practical training), and passing two professional examinations. Together these enable individuals to achieve a core set of competencies as set out in SAICA's (2021) Competency Framework, which was recently updated for the future chartered accountant. Even though several of these required professional skills align with Stellenbosch University's (2017) graduate attributes, this is a significant departure from traditional thoughts about accounting pedagogy.

As the training model includes several role players, namely SAICA, universities, and training offices, it is critical that all these parties communicate effectively and are aware of each other's expectations. For this reason, SAICA engaged with stakeholders in developing the Competency Framework (Barac 2009; SAICA 2021). The needs of training offices were highlighted by the inclusion and clarification of professional values and attitudes, as well as enabling competencies in the Competency Framework. The training offices criticised educators for focusing on technical competencies and neglecting other competencies, which many have argued might be more relevant for the Fourth Industrial Revolution where technical competencies could be replicated by machines (Moll and Yigitbasioglu 2019). These improvements to the competencies are forcing educators to try different pedagogical approaches to allow students to not only engage in deep learning of technical knowledge, but to also engage in developing enabling competencies. In order to address this challenge, the final-year undergraduate auditing lecturers of a university in South Africa implemented and

reflected on several new learning interventions included across one of the keystone topics, namely substantive procedures. The learning interventions focused not only on developing and proper understanding of the technical competencies, but also fostering a better understanding of other competencies considered more relevant in a changing business environment. The purpose of this research was to investigate and analyse accounting student perceptions about the appropriateness of the learning interventions implemented.

The following section places accounting education into context by discussing traditional teaching pedagogies, which is followed by a discussion of possible responses to developing the required competencies. Once the pedagogical context is provided, the research question and methodology is discussed. Thereafter, the lecturers/researchers reflect on the student feedback, before making concluding remarks.

LITERATURE REVIEW

Teaching accounting students

Traditionally, students are taught auditing through lectures and tutorials as the main learning interventions. The focus has been on the transference of information to students in class with a focus on technical skills and limited or no focus on enabling competencies and/or the use of reflections in learning. The faculty has over time attempted to enhance this practice with additional interventions; however, there is room for extensive engagement and enhancement.

Teaching competencies (i.e., technical and enabling) require educators to not only consider the professional requirements, but also the students in class. In training aspiring chartered accountants, there is a need for deep learning where students are encouraged not to merely learn to reproduce what they have learned and pass assessments (i.e., surface learning), but rather to learn with the intention of understanding the subject matter and being able to apply it to any unstructured problem. Accounting educators are placing more emphasis on scaffolding traditional learning opportunities regarding technical content with opportunities to engage and develop in enabling competencies. This affords them learning opportunities to create relationships with existing knowledge structures and ultimately to transfer the learning to different situations (i.e., deep learning) in both technical and enabling competency areas (Hall, Ramsay, and Raven 2004, 491; Dolmans et al. 2016, 1089).

Students presently in higher learning tend to be Generation Z or iGen students (persons born after 2000) (Jones, Jo, and Martin 2007, 887–888). These students, more so than Generation Y before them, have differing learning preferences as each generation becomes more tech savvy (Cilliers 2017, 191). Cilliers (2017, 193) suggests that, in general, Generation

Z students' learning preferences are biased towards online, electronic learning material, more contact sessions, and fewer assignments or assessments. As the first generation to be born into the connected world, Generation Z students generally expect the use of digital platforms and connectivity to be the norm (Rothman 2016). Blended learning in accounting education (face-to-face and technology) is now, more than ever, being used as a pedagogical approach (Sexton 2019). This allows students to be more connected and to ask questions and obtain feedback from their lecturers and fellow students (Hiralaal 2012, 323); thus enhancing their learning.

Experiential learning as a response

Accounting Faculty has over time used many innovative learning interventions to engage and enable the students to achieve the required technical and enabling competencies, which, in auditing, a professional area of specialisation, have presented themselves in experiential learning interventions with realistic business environments that can be applied to large classes within the time and other resources available (De Villiers 2015; Rudman and Terblanche 2011, 64; Steenkamp and Von Wielligh 2011, 14; Arens, May, and Dominiak 1970, 574). This approach is pedagogically sound as shown by Kolb's (1984) support for experiential learning, which highlights the need for an individual (or student) to navigate the learning cycle of *experiencing*, *reflecting*, *thinking*, and *acting* to concretise and support deep learning (Hall et al. 2004, 490). Using the learning cycle, students are encouraged to question why they are doing something (*pragmatist*), to gain detailed understanding of what was taught (*theorist*), taking part in activities and real-life application of principles (*activist*), and reflecting on what they had learned and where gaps in their knowledge are (*reflector*) (Kolb 1984).

Blended learning as a response

Higher education trends highlighted in the *Educause Horizon Report* emphasise the use of online, blended, and face-to-face modes of teaching in the current age (Brown et al. 2020, 11). Specifically, in accounting education, educators have embraced creating learning interventions that intentionally include blended learning techniques to enable students to learn in line with their preferences while encouraging deeper learning (Hiralaal 2012, 317; Steenkamp and Rudman 2007, 29). Student perceptions of these blended learning interventions have been positive (Sexton 2019; Steenkamp and Rudman 2013). Several tools are available to engage students in online learning activities as part of a blended learning experience; from those freely available online to in-house-developed learning management systems, each with their own affordances that need to be considered (Bower 2008). Educators are required to assess the affordances of the technology, their own and the students' technological abilities, and the
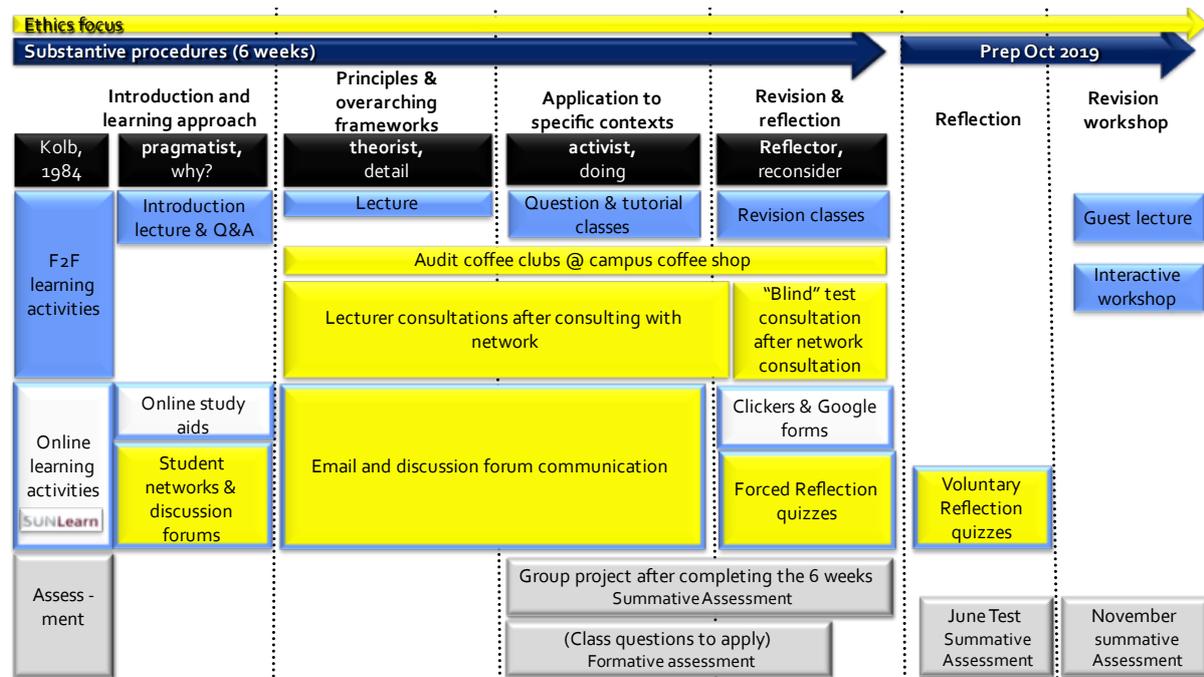
learning objective when determining the most appropriate tool for the specific outcome. These affordances are categorised by Bower (2008) into broader classes of static/instructive affordances and collaborative/productive affordances. This categorisation assists in the selection of the appropriate online tool for the desired learning outcome and engagement of the students. This process was used to decide which blended learning tools to use in teaching substantive procedures.

Pedagogical enhancement and change as a response

There is a need to create learning opportunities to give students an opportunity to develop graduate attributes or enabling competencies (SAICA 2021), to create curricula that allow students to navigate the entire learning cycle, and to use a blended learning approach to actively engage students and achieve deep learning. In response, the auditing lecturers enhanced the pedagogical approach through adding learning interventions in the keystone topic at university. With the professional and other skills required by the new Competency Framework and Stellenbosch University's (2017) graduate attributes in mind, the third-year undergraduate auditing lecturers challenged the pedagogical approach, structure, and norms to teach the substantive procedures keystone topic in auditing in a disruptive manner. The challenge was to disrupt the pedagogy in a scalable manner in a class of approximately 700 students.

Figure 1 contains an overview of the pedagogical approach taken when presenting the substantive procedures topic. Students are required to formulate procedures to obtain evidence to substantiate the correctness of any accounting balance. Historically, the students would study or memorise a list of procedures relating to each account with little application and in many instances do not consider the underlying accounting transactions. The lecturers focused on teaching the students to learn the principles, consider the accounting transactions that make up the balance, and develop procedures by applying the taught principles to a real-world scenario while engaging in the enabling acumen as part of the Competency Framework (SAICA 2021). To enhance this, lecturers tried to simulate real-life situations by working in teams, setting appointments, and providing detailed communications where possible to allow the students to develop the required competencies and skills when performing substantive procedures in the real world.

The following paragraphs highlight the important elements of Figure 1, followed by an explanation of the learning activities. The black blocks in Figure 1 (at the top) refer to the elements of Kolb's (1984) learning cycle as explained under the section "Experiential learning as a response". The remaining blocks show all learning activities, some previously employed,

	Introduction and learning approach	Principles & overarching frameworks	Application to specific contexts	Revision & reflection	Reflection	Revision workshop
Ethics focus						
Substantive procedures (6 weeks)					**Prep Oct 2019**	
Kolb, 1984	pragmatist, why?	theorist, detail	activist, doing	Reflector, reconsider		
F2F learning activities	Introduction lecture & Q&A	Lecture	Question & tutorial classes	Revision classes		Guest lecture
		Audit coffee clubs @ campus coffee shop				Interactive workshop
		Lecturer consultations after consulting with network		"Blind" test consultation after network consultation		
Online learning activities SUNLearn	Online study aids			Clickers & Google forms		
	Student networks & discussion forums	Email and discussion forum communication		Forced Reflection quizzes	Voluntary Reflection quizzes	
Assess-ment			Group project after completing the 6 weeks Summative Assessment		June Test Summative Assessment	November summative Assessment
			(Class questions to apply) Formative assessment			

Figure 1: Overview of the pedagogical approach

as well as new activities specifically introduced. The blocks in light blue (in the middle) represent face-to-face (F2F) learning activities, and blocks in white (at the bottom) with the blue borders are online learning activities on the university's digital learning platform. All blocks highlighted in yellow are additional learning activities that were added or enhanced to address the problem. By clearly linking each activity to the elements of the learning cycle (Kolb 1984), the lecturers created opportunities for deep learning. Additional opportunities for students to formally reflect on and consolidate their knowledge of the topic, which had not been done before, were created. These extended beyond the six weeks the topic was presented.

F2F interventions commenced with an introduction session that clearly created context, provided an overview of the learning opportunities, and highlighted the requirement for students to actively engage from the first day or risk being left behind. The students were reminded of the principles of adult learning and their responsibility for their learning (Muneja 2017). The learning activities were positioned in relation to the competencies and skills required to be developed and relevant to the real world. At this point, overarching emphasis was placed on ethics, which carried through the entire topic. F2F interventions all started with videos of qualified chartered accountants speaking about their role and the importance of ethics to the profession. Clear boundaries in terms of lecturer communication and the need to use all the learning interventions were set. F2F sessions thereafter included traditional learning activities of lectures where the focus was on principles, rather than the details. Lectures and tutorial

sessions included opportunities to apply the principles. This assisted in showing the students how to apply the principles to get to a detailed answer. To consolidate the knowledge, an additional facilitated practical workshop scheduled outside of class time was held. A practical group project, in which substantive procedures was a key element, allowed the students to apply the principles they had learned to a real-world scenario. Guest lecturers from professional practice were also invited to provide further practical perspectives. Students historically focused on the mark awarded for an assessment, rather than the learning. To change this mindset, after the assessment, the students were required to reflect on their performance, identify weaknesses, and plan corrective actions. This reflection process was formalised.

In order to simulate a work environment, as well as to address concerns raised about students' tendency to use short messaging language in professional examinations (SAICA 2020), the approach to and manner of communicating with the students were amended. Moreover, a key skill of an auditor is to be able to review a large volume of information and identify relevant information. Therefore, large volumes of course detail were communicated to the students via information-dense emails or online announcements. The students were not given multiple reminders in class or online as was done in the past. In order to enhance accessibility to lecturers and reduce the barriers between students and lecturers, the lecturers made themselves available for coffee clubs held at a coffee shop located on campus where the students could discuss academic work or any other matters that relate to the profession or their professional life with the lecturers. Attendance was voluntary and attracted small groups of students. In order to provide further insight into the profession, guest lecturers were invited to present lectures on topic areas in auditing in the industry, and to encourage role modelling, during lectures videos were played of chartered accountants who have made an impact on the industry sharing their story and life lessons.

The students were "allocated" to groups (referred to as "networks") through the university's online platform. These were also their groups for the project, and also facilitated communication. "Regular" consultations and student enquiries where students could ask the lecturers any academic question without first being required to apply their minds changed to "conditional" consultations and enquiries, which required the students to first engage with their "networks" of students before consulting with the lecturer. Similar to any professional that would be required to contact his/her network when encountering a business problem, this created a space for students to engage in peer instruction, collaboration, and to take responsibility for their own performance to discuss a way forward. When consultations were held, the online platform was used as an online scheduler so that the students did not know which lecturer they would be allocated to resolve their enquiry.

To support the F2F interventions, several tools on the university online learning platform were used to scale up interventions to the whole group. These included individual discussion forums; detailed email communication, including several topics to simulate business correspondence; quizzes and questionnaires to allow the students to test their progress; and, in some instances, via "clickers", where the students could obtain real-time responses to questions. Each online tool selected was carefully considered based on its affordances and the learning outcomes.

A revision lecture was also used to help consolidate the students' understanding. Table 1 links the enhancements or additions to the learning interventions and focus areas of the research based on professional values, attitudes, and enabling competencies.

Table 1: Learning interventions mapped to focus areas in SAICA's Competency Framework

Learning interventions	Focus area
1. Student networks, discussion forums, and lecturer consultations *after* consulting with network	• Engaging informal learning opportunities • Use of online tools
2. Audit coffee clubs at the campus coffee shop	• Engaging informal learning opportunities
3. "Blind" consultation using the scheduler	• Engaging in self-management.
4. Email and discussion forum communication	• Communication skills • Use of online tools
5. Forced reflection quizzes and voluntary reflection quizzes.	• Engaging in reflective practices. • Use of inline tools
6. Ethical considerations.	• Considering the impact of ethics on behaviour.

RESEARCH OBJECTIVE AND METHODOLOGY

Research objective

The purpose of this research was to test and analyse accounting student perceptions of the learning interventions implemented in the substantive procedure key stone topic. The following research questions arise from the literature review and the pedagogical enhancement and change as a response:

1. For each of the learning interventions added, what were the student perceptions of the following broad questions:

    • Did students engage in the learning interventions created?

    • Did the learning interventions create an opportunity for the student to practice and refine specific pervasive skills required by the profession?

    • What were students perceived benefits of the learning interventions?

    • What were students perceived barriers to the learning opportunities?

    • How would the students enhance these learning interventions?

2.   What are the student perceptions of their own ethical behaviour and frame of reference as well as how they think ethics should be taught.

In addition to providing insight into how students learn, the reflections on the students' perceptions of the various changes initiated can be used to inform future enhancements to pedagogical approaches and the design of learning interventions of not only accounting students but all university students in subjects where deep learning has become a necessity and competency development has become increasingly important.

Research design and data collection

The researchers' objective was to investigate whether the changes made to the pedagogical approach to teaching auditing were beneficial to the students and afforded them the opportunity to engage in deep learning and to encourage engagement during each element of the learning cycle (Kolb 1984). To do this, researchers conducted action research which allowed them the opportunity to reflect on the effectiveness of the interventions. Given the changes in student's needs, as a key participant, the researchers also wanted to obtain feedback directly from the students regarding their perceptions following the intervention. These lecturer reflections and student feedback would be used to inform future learning interventions. The results from the action research forms the basis of a further research article where the researchers specifically consider the integration of the various initiatives. The empirical research presented in this article focused on the students' perceptions following the interventions with the data being collected, analysed and discussed in the following subsections.

Data collection

Following the approach employed by previous studies (Sexton 2019; Steenkamp and Von Wielligh 2011, 13; Rudman and Terblanche 2011, 67; Hiralaal 2012, 321) to observe and assess the student perceptions of learning interventions, questionnaires were used to collect primary data. Questionnaires were designed taking into account literature reviewed regarding advances in accounting education, the Competency Framework (SAICA 2021), Stellenbosch University's (2017) graduate attributes, and the learning activities implemented. Attention was paid to mapping the questionnaire to the Competency Framework (SAICA 2021) and the graduate attributes (Stellenbosch University 2017) as set out in Table 1. The questionnaire comprised questions focused on each learning intervention, specifically:

- use of reflections;

- reliance on networks, namely social networks, as well as online platforms that can be used to collaborate;

- different forms of lecturer engagement;

- consideration of personal and professional ethics;

- communication; and

- role modelling.

The questionnaire included numerous closed-ended questions that relied on several response mechanisms, including Likert scales and "yes" or "no" options. Further qualitative data were obtained from open-ended comment questions, which were included throughout the questionnaire where individualised feedback was considered more appropriate. The researchers viewed it as important to obtain a better understanding of the students' perceptions through qualitative feedback. The questionnaire was reviewed by knowledgeable lecturing staff and was subject to institutional ethical clearance and obtaining institutional permission. The questionnaire was reviewed at the departmental and institutional levels. The questionnaire was emailed to all students registered for Auditing 378 in 2019 at the end of 2019 and the beginning of 2020 to request voluntary participation in the study.

Data analysis

The data from the questionnaire were transferred onto a *Microsoft Excel* spreadsheet where the responses were cleaned for unusual responses and thereafter exported to the *Statistica* statistics software. Statements with a "yes" or "no" option were tallied and analysed in relation to the group as a whole. Statements where data were captured in the form of a Likert scale, with 1 being "not at all" and 5 being "definitely", were collated, the mean calculated, and the statistical impact assessed using the standard deviation (SD). As the data were in the form of Likert scale responses and thus ordinal, it may not necessarily be normally distributed. Content analysis was performed on the responses to the open-ended questions, whereby the responses were collated in *Microsoft Excel* and analysed. Where recurring themes emerged, they were included in the appropriate research finding. The students' perceptions of the various interventions were assessed against the literature and considerations were identified for future learning interventions. Since not all student responses or perceptions were pedagogically sound, not all recommendations could be considered.

FINDINGS

The questionnaire was distributed to 699 students and 82 useful responses were received back. The questionnaire had a 11.7 per cent response rate. The initial plan was to run a second iteration of the approach in 2020; however, the COVID-19 pandemic and related consequences limited the lecturers' ability to do so. An analysis of the feedback obtained from the students is set out based on the feedback per intervention in the sub-sections that follow.

Enhancing peer engagement using student networks and online tools

The students were required to first consult with their peer networks or online discussion forums before engaging the lecturers. Overall, Table 2, which presents the students' feedback using a five-point-Likert scale, where 5 is "definitely", indicated that a culture of peer learning and networking must still be established among accounting students.

Table 2: Perceptions of learning opportunities requiring peer engagement

Statement	Mean	SD
Engagement in Networks		
I engaged with the group members:		
• *before* the group project	2.8	1.489
• *while* we did the group project	3.4	1.615
• *after* the group project	2.4	1.447
Impact on understanding		
I have found that:		
• *asking* my peers questions has helped my learning	3.0	1.361
• *replying* to my peers' questions has helped my learning	3.3	1.430
Impact on relational acumen		
I enjoyed meeting students I did not know	3.6	1.303
I physically engaged with the students in my network outside of the online platform	3.3	1.556
I realised that having a network and networking is an important skill to have in the accountancy profession	4.5	0,878
I find it frustrating that the lecturers are requiring me to ask other students before they answer my questions	2.7	1.572
Use of the discussion forums on online platforms		
I used the discussion forums to ask:		
• *subject-related* questions	1.9	1.265
• *administrative* questions	1.7	1.164
• *other students'* questions	1.5	0.984

The students, previously not required to do so, engaged in the networks and acknowledged that asking and responding to other students' questions assisted them in their own understanding (means above 3). It does, however, appear that this engagement was largely limited to the duration of the group project (where the mean rating is the highest at 3.4), with students

discontinuing engagement in their networks after the completion of the project. This is a profession where networks and relationships are of the utmost importance. From a relational point of view, the students realised the importance of having networks in their future careers, with a high mean rating of 4.5, and indicated that they enjoyed meeting new people and engaging outside of the university platform, with means above 3.3. Irrespective of the benefits, some students (low average of 2.7) were frustrated with the fact that they had to ask their peers their questions before asking the lecturers. Another option of peer engagement is the use of discussion forums, but the students did not utilise these. In response to this feedback, during the COVID-19 pandemic, the lecturers decided to not answer any subject-related queries that were not posted on the discussion forums.

Key themes from an open-ended question showed that the students appreciated the opportunity to network. It forced them to meet new people, outside of their friendship group, who were in their class and created a space for peer learning. It also provided the benefits of seeing different perspectives on the learning material. A few students cited the long-term benefits of expanding their network of classmates.

The students indicated that a barrier to the use of new networks and the functionality of the discussion forums entailed being shy, not feeling that they can rely on their fellow students' responses, and finding that not all the group members engaged properly. They would rather use their own existing networks and other online platforms such as WhatsApp that are perceived as easier to use. They are also not willing to invest the time required to build relationships. The students recommended improvements to the use of the online platform and networking by:

- creating networks from the first year that change each year to encourage students to get to know more of their peers;
- using closed forums;
- creating the networks earlier in the year and requiring students to do mini-assignments earlier in the year to get to know each other before the big project;
- having the lecturers review all posts for quality-control purposes, and
- that more user-friendly and more accessible platforms such as WhatsApp rather be used.

Information engagement

The lecturers felt that the students learn a great deal about non-technical matters through consultations in their offices and they wanted to scale up the benefit. This would also assist in reducing the barrier between the lecturers and the students and encourage greater awareness of

the profession. The lecturers made themselves available in a campus coffee shop. Although 70 per cent of the respondents thought it was a good initiative, only 40 per cent of the respondents made use of this opportunity. The students were asked, assuming that they had attended the sessions, about their perceptions of the initiative using a five-point Likert scale (5 being "definitely").

Table 3: Perceptions of information engagement

Statement	Mean	SD
Had I attended the sessions, I would		
• ask academic questions	3.1	1.603
• ask non-academic questions	2.7	1.639
• not ask questions, as I don't want other students to hear my questions	2.2	1.540
I attended the coffee club and:		
• enjoyed discussions in an informal setting	2.6	1.583
• gained a different perspective listening to others	3.6	1.416

Confirming earlier findings that the students have an academic focus, the students indicated that they would ask academic questions (3.1) rather than non-academic questions (2.7). Having different perspectives present in the meeting was positive.

Although the change in setting was not that important (with a mean of 2.6), the responses to the open-ended question indicated that the informal setting allowed the students to ask about the profession, as well as the content, to learn from their peers' questions and answers, and to be exposed to a different perspective. It also made the lecturers more approachable.

Reasons were presented for not making use of the coffee club engagement, which included:

- Time constraints or timetable clashes;
- Uncertainty about the benefit of attending such sessions; and
- Being uncomfortable with the informal setting and talking to the lecturers, as well as not having any questions to ask.

Even though the students were made aware of the sessions using the communication mechanisms noted under the email and discussion forum communication heading, some students indicated a lack of awareness. In order to promote interest, the students recommended:

- creating coffee clubs for the smaller network groups for the project once a week;
- creating themes for each week;

- meeting in the lunch slot on the timetable;

- free drinks provided as an incentive;

- moving one-on-one lecturer consultations from the lecturers' offices to the coffee shop, and having all lecturers rotate in the sessions so that all lecturers participate.

"Blind" consultation

Having a relationship with a specific lecturer could have a positive impact, but teaching and learning should not be linked to a specific lecturer or a specific lecturer's style or point of view, particularly in a changing world with different approaches and perspectives. In addition to having the students first consult with their network of peers, a scheduler function was used that scheduled meetings with lecturers without the students having influence over which lecturer they consulted. The respondents found the scheduler function useful when making appointments with a lecturer with a 3.5 rating (1.584 SD) out of 5 on the Likert scale with 5 being "definitely". They noted that it was easy to use and immediate, which helped with time management. They would, however, have preferred to select which lecturer to see rather than being allocated a lecturer. Increased use of the scheduler function was recommended.

Email and discussion forum communication

Being able to consume large volumes of information is an important competency for any professional accountant. When asked whether the students read their textbook or perceived it as useful, students' responses reflected that only 46 per cent of the students read their textbook, with a perceived usefulness of 2.8 out of 5. The lecturers included all administrative arrangements in email or announcements and they also used this form of communication to explain some complicated concepts previously discussed in class. All emails were content heavy.

The students indicated that they read the email correspondence properly and considered the principles being communicated, with a mean rating of 4.2 (out of 5; SD 1.025). This is supported by the low response of 1.5 (SD 1.06) stating that they hardly read emails. They did not appear to have a preference for the content of the email (mean rating of 2.2; SD 1.37) consisting of administrative arrangements or learning material. The themes identified in the narrative questions indicated that detailed email communication served as a reminder of what was said in class, it treats all students equally, and "everyone knows what's going on and you can also refer back to the source which ... prevents misunderstandings and unnecessary admin". They also provided reasons for not reading emails, with the biggest reason being the length and formality of the emails. Many considered the main form of communication as being the module

framework and messages communicated in class and not via email. A few indicated that they relied on peers who have read the emails and messages on the class-created WhatsApp group as a source of information, which negates the need to read emails personally. A handful of students stated that the emails were not entertaining, and they might lose focus and not read the emails. Recommendations for improvement included ensuring that the subject lines were clear as they received many emails from all their lecturers, making emails shorter and in bullet form, sending fewer emails, and not repeating in emails what was communicated in class. All these recommendations negated the reasons for sending content-heavy email correspondence.

Reflection quizzes

It is worth noting that no accounting course makes use of reflections as part of its pedagogy at Stellenbosch University. When asked, students responses indicated that they reflected on their progress, performance, and work, but from the contradictory feedback received via the questionnaire, it is surmised that the students might have a misunderstanding of the pedagogical need for regular, intentional reflection. Compulsory reflections after Test 1 were introduced, as well as formal voluntary reflections before and after Test 2 using quizzes on the online platform. Based on the students' responses, courses of action were recommended. Table 4 presents the students' perceptions regarding structured reflections using a Likert scale of agreement, with 5 being "definitely". Even though the students had indicated earlier that they reflected on the work, the overall mean ratings are fairly low and present conflicting results.

Table 4: Perceptions of forced and voluntary reflection quizzes

Statement	Mean	SD
Completion of reflections		
I completed all of the reflections	2.8	1.540
I only completed the first reflection because I needed to in order to get the solution for the rest	2.0	1.122
I completed the reflections *in advance* preparation for the second test	2.3	1.212
I completed the reflection *after* the second test since the reflection on the first test was valuable to me in assessing my performance and planning the way to move forward	2.8	1.366
I did *not* complete the reflection after the second test as I did not see the benefit or value the first time, or ever	2.8	1.403
Care and due consideration		
I just clicked anything in the reflection to complete the quiz:		
• to get the solution	1.3	0,629
• in case the lecturers are monitoring who does it	1.4	0.847
I find it frustrating that the lecturers are asking us to reflect on how I have learned, tests, and assignments	2.7	1.509
I carefully considered what I wrote down in my reflection, as well as the feedback on my reflections and how to integrate it into my learning in future	2.0	1.291
I took actions to amend my learning based on my reflections	2.5	1.268

The SDs on the responses to the questions relating to the reflections are large, which shows how varied the students were in their responses to the use of reflections as part of their learning process. The responses show contradicting results in relation to the completion of the reflections. They indicate that most students completed voluntary and compulsory reflection quizzes, with a mean of 2.8. This is supported by the students' perception that they did not do the refection merely to obtain the memorandum for the test (question phrased in the negative, with a mean of 2.0). However, the responses to the opposing question of not completing the quiz as it did not add value the first time produced the same mean. The responses further show that the students do not really use reflection as a tool in preparation for a test, with a mean of 2.3 leaning towards "not at all".

Regarding the care and due consideration taken to complete the reflections, the students indicated that they did not complete the reflection because it was compulsory (to obtain the memorandum) or because the lecturers were monitoring it. However, they do appear to find it frustrating (mean 2.7) to be required to reflect. It appears as if the students did not engage fully in the reflection opportunity as many indicated that they did not carefully consider what they wrote down or how to integrate it in future learning (mean 2.0); however, the students on average acknowledged that they made some changes after the reflections (mean 2.5).

Key themes in the open-ended questions relating to the benefits of the reflections indicated that the students were able to see where they went wrong and could amend their study approach. Some students, who were not aware of the need to reflect previously, noted that by doing the reflection, they saw it could help them improve their learning approach.

The student feedback, obtained from the open-ended questions, on areas where the reflections could prove useful to improve performance highlighted the uncertainty between "reflection as a means of adult-driven self-learning" and "feedback on the assessment itself"; thus supporting the proposition made at the beginning of the section.

The students requested more detailed feedback on the technical content of the assessment rather than a self-reflection of their own performance. Interestingly, several students wanted to see other students' reflections, while some wanted marks to be allocated to the reflection (i.e., be rewarded). One student suggested doing more frequent but shorter reflections. The timing of the reflection also received several contradicting recommendations ranging from immediately after the assessment to when the marks have been released to not at all. On the other hand, several students did not want to be forced to do the reflection. When asked why they would not make use of the reflections, several students indicated that they did not see the reflections as necessary and perceived them as time consuming and a waste of time. They also argued that it had a negative emotional impact when they assessed themselves as they were

reminded of where they went wrong and the need to study more. They only did the reflections when forced to and forgot about it on their own. In agreement with the request for more technical feedback, some students felt that the reflections were not specific enough to their own assessment and it therefore did not add value and they would rather spend the time on other subjects or review the memorandum of their questions.

Scaling reflections as a teaching tool in accounting education has been limited, with a few examples through portfolios of evidence (McGuigan and Kern 2009), which supports the need to keep creating reflective learning opportunities. This contradictory feedback highlights the need for the lecturers to educate the students on the need for reflection, deep learning, and how and on what to reflect. There must also be a change in students' focus away from marks, assessments, and memoranda.

Ethical considerations

One area in which the accountancy profession has had challenges relates to instilling ethical values and living out these values (Holtzblatt, Foltin, and Tschakert 2020). Specific consideration was given to promoting ethics and ethical behaviour in various activities. Table 5 describes the mean responses to a five-point Likert scale, with 5 being "definitely", to confirm whether the students agreed with several statements about ethics.

Table 5: Perceptions of ethical considerations

Statement	Mean	SD
Straightforward and honest		
I consider myself to be straightforward and honest in all my academic dealings	3.9	1.199
As a future professional in the business environment, I consider myself to be trustworthy and reliable	3.9	1.295
Ethics and morality		
My ethical and moral view are informed by:		
• my family, religion, and upbringing	4.2	1.018
• the code of professional conduct	4.8	0.408
• the second-year business ethics course	3.4	1.371
Ethical implications of actions		
I always consider the:		
• ethical implications of my actions	3.8	1.196
• ethical frameworks (such as the code of professional conduct, university disciplinary rules) when deciding on a course of action	4.4	0.845
Inclusion of ethics in undergraduate education		
I think that ethics is something that should be included in *all:*		
• modules	4.8	0.397
• assessments	4.8	0.477

The responses to the ethical questions are all positive and have high means that lean towards

"definitely". The students' moral and ethical views appear to have been informed by their family, religion, and upbringing, with a mean of 4.2. However, the even greater influence is perceived to be the code of professional conduct, with a mean of 4.8. The SD is also below 0.5, which indicates limited variance in the students' responses. The students perceived that they often consider the ethical implications of their actions, specifically the code of professional conduct and university disciplinary rules when deciding on a course of action. It is notable that the students do not always perceive themselves as straightforward and honest in their academic dealings or as trustworthy and reliable as a future professional, both with means of 3.9. This is an area of concern in training future chartered accountants who are required to represent ethical leadership in South Africa. It is encouraging to observe that the students think that ethics should be included and assessed in all modules and not be restricted to a single subject area or course.

CONCLUSION

Over the past few years, there have been many calls for change in the manner in which aspiring chartered accountants and other professional accounting students are trained. The lecturers of a final undergraduate auditing module identified gaps in the traditional pedagogy for teaching substantive procedures, which is a fundamental topic. They implemented several learning interventions to create opportunities for students to navigate the entire learning cycle (Kolb 1984) and reflected on the student perceptions as to whether the planned outcomes were reached, whether competencies were developed, and how effective the interventions were.

The results indicate that including these activities supported the students' deeper learning, engaged in all elements of the learning cycle, was beneficial, and could be used in the future in other topics. There is, however, much work to be done to educate students on the benefits of each initiative and a change in mindset.

Although the implemented interventions made the students uncomfortable, they engaged in meaningful learning of technical skills, as well as developing professional skills and competencies. Many of these professional competencies have never really been developed in traditional accounting pedagogy. The students acknowledged that the interventions created opportunities to develop these competencies without realising it and the lecturers plan to use several of these interventions again in the future. Valuable lessons were learned from the student feedback, which will be incorporated into future interventions post COVID-19. It also highlighted the need for lecturers to take the lead and being willing and having the courage to disrupt the status quo, being willing to make the students uncomfortable, and to change the culture of learning.

A further research article containing the lecturers' reflection on the interventions is in progress.

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