

# Exploring accounting students' experiences during the COVID-19 pandemic to inform teaching and learning decision-making post pandemic

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Students' experiences during COVID-19

Received 1 August 2023  
Revised 14 September 2023  
30 October 2023  
Accepted 1 November 2023

## Abstract

**Purpose** – The objective of the study was to explore which COVID-19 teaching and learning methods, that enhanced accounting students' learning experience, should be applied at a residential university after the pandemic.

**Design/methodology/approach** – A qualitative exploratory approach within an interpretive paradigm was applied. A total of 15 semi-structured interviews were conducted with accounting students and the data were analysed using thematic analysis.

**Findings** – This study shows how pre-COVID-19 accounting education can be adapted by learning from the teaching and learning experiences gained during the pandemic and that there are various teaching and learning methods that can be applied in the post-COVID-19 period to enhance students' learning experience. These blended active teaching and learning methods include: the flipped classroom, discussion forum, electronic platform (to ask questions during class), key-concept videos and summary videos. Introducing these teaching and learning methods comes with challenges and the study provides recommendations on how to overcome foreseen obstacles. The contribution of the research is that it informs accounting lecturers' decision-making regarding which teaching and learning methods to apply in the aftermath of COVID-19 to enhance students' learning experience.

**Originality/value** – It is uncertain which teaching and learning methods employed during the COVID-19 pandemic should be applied at a residential university to enhance the teaching and learning experience after the pandemic. Accounting lecturers might return to their pre-COVID-19 *modus operandi*, and the valuable experience gained during the pandemic will have served no purpose.

**Keywords** COVID-19, Accounting education, Student experiences, Teaching and learning methods

**Paper type** Research paper

## Introduction

There is only one thing more painful than learning from experience, and that is not learning from experience (MacLeish, 2017). In most countries a national lockdown (2020) was enforced to curb the spread of the Coronavirus, resulting in the immediate closure of all non-essential services, including tertiary institutions (Maharaj, 2020; Toquero, 2020). Residential universities worldwide were forced to switch to emergency remote teaching (Maharaj, 2020; Du Plessis *et al.*, 2022;

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**Funding:** This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

**Disclosure statement:** No potential conflict of interest was reported by the author.



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Onwuegbuzie *et al.*, 2020, p. 243), resulting in universities applying and experimenting with alternative teaching and learning methods (Ali *et al.*, 2021, p. 262; Onwuegbuzie *et al.*, 2020, p. 242).

Toquero (2020) encouraged education researchers to investigate how COVID-19 had changed teaching and learning and would change it in the future. Understanding the experiences of teaching and learning methods used throughout the pandemic is essential since the academic community is at a turning point about the services that will be offered after the COVID-19 pandemic (Boshoff-Knoetze *et al.*, 2022).

To decide on the best course of action, it is crucial to reflect on the experiences gained during the COVID-19 pandemic (Du Plessis *et al.*, 2022) which can inform teaching and learning approaches (Abdel-Rahim, 2021; Fogarty, 2020; Marton and Säljö, 1997; McGuigan, 2021). As an area for future research, Sangster *et al.* (2020, p. 444) recommended exploring accounting students' experiences as such research "would enrich the field of accounting education research" and will inform practices for the future.

Stellenbosch University (SU) was selected as a single case in this qualitative study to obtain an in-depth understanding of how accounting students experienced teaching and learning methods during the pandemic (Gustafsson, 2017). Even though the study was carried out at only one South African university, the findings may be applied globally.

SU adopted emergency remote teaching, learning and assessment (ERTLA) as its method under the restrictions imposed during national lockdown in 2020. When some of the restrictions were lifted in 2021, SU moved from ERTLA to an augmented remote teaching, learning and assessment (ARTLA) method. SU incorporated various new teaching and learning methods during ERTLA and ARTLA. These methods included:

- (1) a flipped classroom;
- (2) an asynchronous discussion forum; and
- (3) an electronic platform to ask questions during synchronous online lectures.

Some of these teaching and learning methods applied were blended active learning methods, for example students actively engaging in conversation online using a discussion forum and students watching pre-recorded videos (i.e. in a flipped classroom). Blended learning is realised in teaching and learning environments where there is an effective integration of different modes of delivery, models of teaching and styles of learning as a result of adopting a strategic and systematic approach to the use of technology combined with the best features of face-to-face interaction (Krause, 2007). Experiencing COVID-19 teaching and learning solutions presents the ideal opportunity to inform decision-making on introducing blended active learning methods into the accounting classroom.

The objective of the study was to inform accounting lecturers' decision-making about which teaching and learning methods to apply at a residential university in the aftermath of the COVID-19 pandemic to enhance students' learning experience. Without this research, accounting lecturers might revert to pre-pandemic methods and the valuable COVID-19 experience will have served no purpose. The scope of the study excluded students' experiences in respect of the streaming and recording modalities applied during the pandemic.

### Literature review

The literature review starts by considering the gap in knowledge relating to the research objective. Then literature on the various teaching and learning methods under consideration in this study is explored.

Brink's (2023) study made a starting point to address the selection of the most appropriate accounting teaching and learning methods to apply after the pandemic. Brink's (2023) study

only focussed on teaching modalities (i.e. streaming and recordings) and excluded accounting students' experiences of any of the other teaching and learning methods applied during the COVID-19 pandemic and recommended these as an area for future research.

There are studies that examined university students' experiences of teaching and learning before and during the COVID-19 pandemic (Abbasi *et al.*, 2020; Ali *et al.*, 2021; Aristovnik *et al.*, 2020; Brink, 2023; Hussein *et al.*, 2020; Meulenbroeks, 2020; Ojo and Onwuegbuzie, 2020; Onwuegbuzie *et al.*, 2020; Rohman *et al.*, 2020; Sawan *et al.*, 2023; Tartavulea *et al.*, 2020), but none of these studies investigated accounting students' experiences of teaching and learning methods during the COVID-19 pandemic to inform decision-making after the pandemic.

### *Flipped classroom*

The flipped classroom “inverts the traditional classroom model by introducing course concepts before class, allowing educators to use class time to guide each student through active, practical, innovative applications of the course principles” (Academy of Active Learning Arts and Sciences, 2018). The flipped classroom creates an opportunity for students to apply their knowledge, ensures student–student and student–lecturer engagement and facilitates interaction where knowledge and ideas are shared, thus improving students' higher-order thinking, critical thinking skills and communication skills (Lento, 2016; Nugraheni *et al.*, 2022; Strelan *et al.*, 2020). It also increases student participation in learning, achievement and satisfaction in learning (Lento, 2016; Nugraheni *et al.*, 2022). The flipped classroom has become a popular approach in higher education (Nugraheni *et al.*, 2022; Strelan *et al.*, 2020), but is not widely used in accounting education (Sawan *et al.*, 2023). The study of Sangster *et al.* (2020) indicated that accounting lecturers who experienced COVID-19 teaching and learning were optimistic about introducing the flipped classroom methodology. Students however may be resistant to the flipped classroom, since it requires preparing for class and more active learning (Strelan *et al.*, 2020).

### *Discussion forum*

Asynchronous discussion forums as an e-tool provide students with the opportunity to interactively discuss, share and reflect on their own understanding based on others' perspectives and experiences at a time that is convenient for them, and, in so doing, enhancing their learning experience (Ferrara *et al.*, 1991; Kelly *et al.*, 2022; Makinster *et al.*, 2006; Seethamraju, 2014; Stacey, 1999; Weila *et al.*, 2011). Discussion forums facilitate interaction and engagement with the content and with peers, enabling independent learning, developing critical thinking skills; leading to the social construction of knowledge; and the transferring of knowledge beyond the traditional lecture environment (Abdel-Rahim, 2021; Seethamraju, 2014; Weila *et al.*, 2011). Wang and Bonk's (2001) study indicated the possibility that the permanence of recorded information on a discussion forum could make students reluctant to use the platform or that some might be afraid of asking a question that may be regarded as stupid. To overcome these obstacles, participants in the study recommended that the username on the discussion forum be kept anonymous.

### *Electronic platform to ask questions during synchronous lectures*

Literature on students asking questions during online synchronous classes shows contrasting evidence. Both Onwuegbuzie *et al.* (2020) and Meulenbroeks (2020) found that students were reluctant to ask questions during online synchronous classes. Students indicated that asking questions in an online environment is not “as natural and free as in [face-to-face] class . . . It's a little nerve wracking to post your question publicly for all others to see” (Onwuegbuzie *et al.*, 2020, p. 250). In contrast, Sangster *et al.* (2020) revealed that more

questions were asked during synchronous online lectures than in face-to-face lectures, and [Ali et al. \(2021\)](#) indicated that students participated well in discussion questions in synchronous online lectures.

**Conceptualising the research from a theoretical perspective**

Prior to the COVID-19 pandemic, most university accounting programmes were offered through traditional passive face-to-face interaction ([Ali et al., 2021](#)), and offered limited other ways of learning. Considering what is currently missing in accounting teaching and learning and the introduction of other ways of learning, the learning needs for accounting can be determined with reference to [Laurillard’s \(2012\)](#) six ways of learning including:

- (1) Read-Watch-Listen: Learning through acquisition. Often called “passive learning”.
- (2) Investigate: Learning through inquiry.
- (3) Practice: Learning through doing. Feedback is crucial.
- (4) Produce: Showcasing learning through production of an output/task.
- (5) Discuss: Learning through critical dialogue and articulation of thinking.
- (6) Collaborate: Learning through communal and participatory knowledge building.

The inherent nature of accounting as a discipline (being practical and numerical), the allocated class time, the big class sizes and syllabus overload in many cases prevent or limit other ways of learning, including practice, discuss and collaborate. These ways of learning can be regarded as accounting learning needs currently not adequately addressed and integrating technology can address these learning needs identified.

Considering the integration of technologies in teaching in a blended mode of delivery the researcher referred to the Technological Pedagogical Content Knowledge (TPCK) framework (a conceptual framework for educational technology). According to this framework it is imperative that lecturers have the technological, pedagogical and content knowledge necessary to ensure the optimal learning experience ([Mishra and Koehler, 2006](#)). Accounting lecturers might lack technological knowledge (specifically digital technology as opposed to conventional technology) and to increase lecturers’ technological knowledge to inform decision-making on technology integration it is crucial to evaluate the affordances of the technologies under consideration in this study, i.e. the technologies introduced during COVID-19. The affordances of technologies refer to the planned use of a particular tool and the consequences of using the specific tool ([Conole, 2013](#)). [Table 1](#) contains the learning technologies together with their affordances that were introduced during COVID-19.

Learning technologies	Affordances	Affordances	
		Positive	Negative
Text-based tools	Discussion forum	Collaboration (students being co-creators of knowledge), dialogue (online communication with peers and lecturers), reflection (critically consider, critique and engage in conversation with peers and lecturers)	Extra burden on the lecturer
Text-based tools	Electronic platform to ask questions		
Video-tools	Flipped classroom	Application, authenticity and inquiry (applying knowledge obtained)	

**Table 1.**  
Learning technologies and affordances

**Source(s):** [Bower and Torrington \(2020\)](#), [Bosman et al. \(2022\)](#) and [Conole \(2013\)](#) adapted

The teaching and learning methods discussed in [Table 1](#) (discussion forum, electronic platform to ask questions and the flipped classroom) offer the affordances to meet the learning needs identified earlier in this section (namely practice, discuss and collaborate). This provides theoretical grounding for introducing the mentioned teaching and learning methods.

## Methods

The methodology required for this study was one that would allow the researcher to thoroughly explore the specific phenomenon under study ([Babchuk, 2020](#); [De Villiers et al., 2019](#)). It was decided to apply a qualitative exploratory approach to gather rich, descriptive data containing information on accounting students' experiences of teaching and learning methods used under COVID-19 restrictions ([McKenzie and Danforth, 2014](#); [Myers, 2009](#)).

Deep reflection was required on what, for the researcher, constitutes valid knowledge and how it can be obtained (epistemological perspective) and what constitutes reality and how it can be understood (ontological perspective). The researcher's insights as a chartered accountant have previously been a pursuit of concrete facts and a quest for impartial information leading to unchangeable truths. A research focus shift to accounting education led the researcher to become more aware of the power and relevance of personal, subjective views. After reflecting on this, the researcher concluded that her former ontological stance related closely to a positivist paradigm (one that predicts) and that the current stance, based on new insights, relates to an interpretive paradigm (one that seeks to understand) ([Lather, 2006](#)). The interpretive paradigm was therefore selected to investigate the experiences of accounting students.

Interpretivism is characterised by the belief that there are multiple subjective realities (truth is many) compared to the positivist paradigm, where there is only one objective reality (truth is one) ([Lather, 2006](#)). Interpretive research seeks to understand phenomena by the meanings that people assign to them ([Henning et al., 2005](#)) and focuses on the complexity of human sense-making (personal interpretations of facts and circumstances) as a phenomenon emerges ([De Villiers et al., 2019](#); [Myers, 2009](#)). The interpretive paradigm revealed and provided context for the reality encountered in the field of accounting education ([Yana Ulfah, 2018](#)); it enabled the researcher to gain insight into the preferred teaching and learning methods to apply in the aftermath of the COVID-19 pandemic. The philosophical foundation of interpretivism is anchored in phenomenology ([Bogdan and Biklen, 2007](#); [Erikson and Kovalainen, 2008](#)) and gave the researcher access to a rich source of perspectives, information and ideas, with regard to the lived experiences of various individuals ([Smith et al., 2009](#)). A phenomenological study describes the ordinary meaning for various individuals of their lived experiences of a common phenomenon or a concept ([Creswell, 2013](#)) and how they make sense of that phenomenon ([Eberle and Schnettler, 2019](#)). The universal essence of the accounting student's experiences could therefore be grasped because of a phenomenological research strategy that was used ([Creswell and Poth, 2018](#)).

### *Participants selected for participation*

To ensure that rich, comparative, and meaningful data were obtained, accounting students who experienced pre-COVID-19 as well as COVID-19 teaching and learning at the time of the study were purposively selected to form part of the population for investigation. The 2021 and 2022 accounting postgraduate (bachelor) students experienced the mentioned teaching and learning methods and 15 participants (referred to as P1–P15) from both postgraduate year groups agreed to take part in the study and were interviewed (refer to [Appendix 1](#) for more information). These students would be able to compare their learning experiences and

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would be able to make meaningful recommendations. Participants were recruited with a recruitment announcement sent via the learning management system. Institutional permission and informed consent were obtained from SU and the accounting students, respectively, prior to the interviews in line with the university requirements for ethical clearance (Project number: 25,114).

#### *Data collection method*

Semi-structured interviews were used to obtain in-depth information (Polkinghorne, 2005; Ryan *et al.*, 2009) from accounting students. Semi-structured interviews allow for the asking of several less-structured questions, investigating spontaneous issues brought up by the participants and seeking clarification for answers, if needed (Creswell and Guetterman, 2019; Ryan *et al.*, 2009). By exposure to open-ended questions and probes, the participants were given the opportunity to react in their own words and in light of their own experiences (Ryan *et al.*, 2009). The interview process was guided by questions regarding how students experienced the new teaching and learning methods introduced during the pandemic. The theme of key-concept videos and summary videos emerged during the first two interviews. This was an interesting theme the researcher wanted to explore in more depth. The interview guide was therefore updated to include the following question: “What is your perspective on introducing key concept videos or summary videos?” The remaining 13 participants responded to the final interview guide. This final interview guide was included in Appendix 2.

In total, 15 interviews were conducted. At this point, the researcher was satisfied that data saturation had been reached (Dai *et al.*, 2018). All interviews were recorded to make sure the facts were recorded accurately. While conducting the interviews, field notes were kept by the researcher to capture observations and personal perspectives of the participants (Creswell and Guetterman, 2019).

#### *Data analysis*

Thematic analysis [1] was used to analyse the data gathered, as it enabled the researcher to recognise and describe themes, patterns, and regularities that were indicated by participants regarding their opinions and perspectives on teaching and learning methods applied during COVID-19. To analyse the data a combination of an inductive and deductive approach was followed with prominence given to the inductive approach. The researcher mainly coded from the data, allowing for codes and groups to be identified based on participants’ insights and experiences (inductive). “Feeling comfortable to ask a question” and “Summary videos” are respectively examples of a code and a group identified using the inductive approach. The data were further categorised into themes that were determined deductively (Hsieh and Shannon, 2005). The main themes were determined by the new teaching and learning methods experienced during the pandemic. An example of a theme determined deductively would be “Discussion forum”. This analyses prioritised data-based meaning (a bottom-up approach) over researcher or theory-based meaning (a top-down approach) (Braun and Clarke, 2012). This approach provided a rich description of the data (inductive) and not just a detailed analysis of some aspect of the data (deductive) (Braun and Clarke, 2006). The identified themes informed decision-making on the most appropriate teaching and learning methods to apply after the COVID-19 pandemic.

#### **Findings and discussion**

From the data obtained and analysed the researcher’s technological knowledge increased (Mishra and Koehler, 2006) and was used to make recommendations regarding the integration of technologies in teaching in a blended mode of delivery. A discussion of the

impact of various teaching and learning methods applied during COVID-19 on participants perceived learning experience within each theme follows.

### *Flipped classroom*

During the COVID-19 pandemic the flipped classroom was introduced in accounting classes. Students were provided with a pre-recorded lecture, preparing them for a synchronous lecture. Lecture time would then be utilised to practise the theory covered in the pre-recording by working through a question. Participants were required to share their experience of the flipped classroom methodology.

Some participants found the flipped classroom methodology beneficial and had no problem in preparing for these classes. They mentioned that it was easy to understand the theory by watching the pre-recorded lecture and preferred using the synchronous lecture time to apply the theory practically – “the questions help a lot because they teach us concepts and . . . exam technique” (P7). Participant 14 mentioned that the pre-recording offered the lecturer the opportunity to present the theory in a concise manner (i.e. a 20-min recording), instead of having a long, drawn-out hour-long lecture. Participant 9 was of the opinion that accounting students would have liked more switching between active and passive learning. Participant 15 emphasised that preparing for class was extremely helpful.

In contrast, the other seven participants did not enjoy this approach. Participants mentioned that they did not have enough self-discipline (P4); there was not enough time to prepare for such classes (P8; P13; P14); and students were not in the habit of preparing for class: they wanted to go to class and then after class revise what had been covered (P5; P11; P12; P14). They saw the value of this approach (i.e. preparing for class and having more time to apply the theory practically), but still did not prepare and preferred having the theory presented in class (P4; P5; P11; P14). According to Participant 14, the success of the flipped classroom methodology would depend on the nature of the student. The self-disciplined student would prepare for class whereas a less-disciplined student would not.

As no consensus was reached regarding experiences, data from the interviews were linked to previous literature on the specific theme to make a meaningful recommendation to inform decision-making. Literature confirmed that the flipped classroom methodology offers various advantages (Fogarty, 2020; Lento, 2016; Nugraheni *et al.*, 2022; Strelan *et al.*, 2020) and therefore could be introduced in accounting education (Sangster *et al.*, 2020). Lecturers should therefore continue using the flipped classroom and work to change students' mindsets and the present culture around preparing for class. Students should be made aware of the value of preparing for class and the advantages of the flipped classroom methodology. Once students become accustomed to preparing for class, they may start appreciating the value of this approach, as was noted by some participants in this study.

### *Discussion forum*

An asynchronous discussion forum on a learning management system was introduced for the first time at the start of ERTLA as an e-tool, where students could post questions to the lecturers on the learning management system. Questions asked and answers provided by lecturers could be viewed by all students. Students could also ask follow-up questions, comment, or even answer fellow students' questions. Fourteen participants felt that the discussion forum was effective, and that it worked well. The discussion forum was reported to offer students the opportunity to learn from the lecturer and also from their peers (P1; P2; P3; P4; P5; P6; P7; P9; P12). If students had a question, they could search on the forum and might find that another student had already asked the question and in this way they need not waste time typing the question or waiting for feedback (P1; P2; P3; P4; P6; P7; P8; P9; P10; P11; P14; P15). The lecturer could answer with a single post (P4; P6). Seeing other students

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struggle with the same issues provided students with a sense of reassurance (P8; P12). Since students could react and comment on each other's questions (P7), they became co-creators of knowledge in an active learning environment. Also, students appreciated that all questions, comments and answers were concentrated in one place (P7) and the descriptions and explanations were comprehensive and clearly articulated (P14).

The discussion forum offered a "safe, comfortable space for students" to ask questions and to interact, especially for those students who did not feel comfortable asking the lecturer a question in person (P13). The advantage of asking questions electronically (via the discussion forum or e-mail) as opposed to in-person enquiry was that the lecturer has time to think about the question and "has some time to construct an answer" (P8). Participant 12 mentioned that it was helpful to have the question, comments and answers in writing compared to a question being asked in a face-to-face lecture: "It was much easier to follow their question [and the answer]."

Various participants indicated that they felt comfortable asking questions on the discussion forum even if their fellow students could see their name (P1; P6; P7; P10; P11; P12; P13). The difficulty level of accounting reassured them that there was no such thing as a stupid question (P4; P7). However, there were students who did not feel comfortable using the discussion forum (P3; P6; P9; P11; P15). They were afraid of asking a "dumb question" (P9; P15). Some preferred using other resources for asking questions, including e-mailing the lecturer or asking the lecturer in person (P3; P6; P8; P9; P14; P15).

A number of students were hesitant to use the discussion forum: they would first rethink a question and consult with their peers before posting it on the forum, to ensure that it was "a good question" (P3). This hesitancy has both positive and negative angles. The negative angle is that the discussion forum intimidates and deters students from asking questions, while, the positive angle is that hesitant students first apply their minds to the problem and consult with their peers, which indicates the application of critical thinking.

Some students read all the questions posted on the discussion forum, especially before a test (P5; P7; P13; P14), while others only searched for the specific questions with which they were struggling and read that discussion (P4; P6; P8; P11; P15). Participants 9 and 15 felt that they just did not have enough time to work through all the questions on the discussion forum. In preparing for a test, Participant 7 used the discussion forum to compile a list of general mistakes or issues with which students struggled, and this was then used for revision purposes. Various participants specifically recommended that the discussion forum should be retained as an option after COVID-19 (P1; P5; P11; P12; P14).

Contemplation and interpretation of the reported experiences by the researcher led to the following conclusion: the discussion forum should not be removed as a platform where students can ask questions in the post-COVID-19 period, as it could serve as an additional learning tool. In addition, Participants 10 and 12 suggested that a discussion forum for each topic should be created and that there should be clear rules about titling the subject of the question to ensure structure and to make it easy to find a question using certain keywords. The subject line should include the topic and a clear, short description of the question. Even though lecturers should encourage students to use the discussion forum, students – particularly those who felt self-conscious using the forum to ask questions – should also have the option of emailing the lecturer directly (P13). These recommendations would accommodate different student preferences.

#### *Electronic platform to ask questions during synchronous lectures*

During ARTLA, face-to-face lectures were streamed via Microsoft Teams. This programme offered a chat function where students could post and react to questions online during synchronous lectures. Various participants indicated that they felt comfortable asking

questions electronically during these lectures using the chat function even if their fellow students could see their name (P1; P3; P4; P7; P8; P9; P10; P11; P15). They indicated that it was much easier to formulate questions electronically (P3; P4; P6; P7) and that they asked more questions with an electronic platform available compared to asking questions in face-to-face lectures (P1; P4; P5; P7; P8; P10). They also reported that the electronic platform led to greater student participation: for example, when a lecturer asked a question, many more students would post the answer compared to the number raising their hands in face-to-face lectures (P10; P15).

Moreover, there was a greater opportunity to learn from peers (P1), as students asked more questions using the electronic platform. Participants did not experience the electronic question platform available during lectures as disruptive (P1; P4; P9; P15). Based on his experience, Participant 15 was of the opinion that lecturers were able to attend to the electronic platform and to the students sitting in face-to-face lectures simultaneously. The advantage of having an electronic question platform was that the lecturer could attend to unanswered questions in a following lecture or on the discussion forum given the time constraints in a lecture (P7).

In contrast, not all students felt comfortable using the electronic platform with its lack of anonymity (P2; P3) for fear of asking a “dumb question” (P3). Participant 2 preferred asking the lecturer a question in person after class and found the idea of asking a question electronically “daunting”. To accommodate students not feeling comfortable using the electronic question platform, the platform should rather display student numbers rather than student names. Complete anonymity should be avoided, however, as this might carry the risk of students posting inappropriate messages (P11; P14).

Participants 8, 10 and 14 felt that the Microsoft Teams question platform was disruptive and caused students to lose focus. Participant 8, asserting that “it is a great concept, but it is not working”, argued, as follows, that the electronic question platform placed an extra burden on the lecturer: “[The lecturer] must follow the chat, go on with a lecture and pay attention to the class . . . where is the attention? Is it on the chat or is it on the live stream or the live class?” The types of questions asked electronically were also more detailed, sometimes including a long explanation or a scenario, compared to questions asked in face-to-face lectures. Participant 2 reacted with despair: “When people ask complicated questions in the chats, I almost zone out because I’m like . . . this is actually just stressing me out . . . some of [the questions] I actually would prefer not to hear.” Participants 10 and 15 mentioned that questions asked electronically were easily misunderstood: “I think there is a bit more of a miscommunication on the chat compared to in-person” and sometimes the lecturer missed some of the electronic questions (P10). When answering questions in person, the lecturer can see if the answer is misunderstood based on the facial expression of the student (P15).

There was no consensus on whether it was desirable to provide an electronic platform for students to ask questions during synchronous lectures, but most participants did experience this additional platform as contributing to their learning experience. Therefore, this study recommends that students be offered the opportunity to ask questions electronically during a synchronous lecture, thus increasing active learning in the classroom. This recommendation aligns with a participant in [Sangster's et al. \(2020, p. 471\)](#) study who made the following statement as part of his learnings from COVID-19 experiences:

In order to foster a more lively debate during [accounting] lectures, I intend to facilitate some kind of chat function in the lecture room. Through such an initiative, I expect more questions from the students, as was experienced during the online lectures.

This could be implemented via the chat function on Microsoft Teams should lectures continue to be streamed or, if classes are not streamed, another platform could be used to ask questions electronically during class (P4; P14; P15). The concerns raised by participants not

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in favour of providing an electronic platform in class can be overcome by adopting the following recommendations:

- (1) Communicate clear rules relating to using the electronic question platform (i.e. only ask a question similar to that which you would ask in person) (P11).
- (2) To ensure that the lecturer stays focused on the students, another lecturer could answer the questions on the electronic question platform (P8).
- (3) If classes are streamed via Microsoft Teams, the chat function could be closed by students that experience it as a disruption or the sound notification could be disabled (P9; P10). The lecturer could repeat the question asked in the chat function before answering it. In this way students not viewing the chat function (students sitting in the face-to-face lecture or students who close the chat window in the streamed lecture) or students watching the recording of the streamed lecture (should recording be made available) will also benefit from the questions asked electronically.
- (4) If classes are not streamed and another electronic question platform is offered, the lecturer could open and display the platform where questions are asked when attending to the questions. In this way the students still see the questions being asked without the questions popping up during the lecture and being disruptive.

#### *Key-concept videos and summary videos*

A theme that emerged from the first two interviews conducted was the need for a short video recording of difficult concepts with which students struggle (viz. a key-concept video). This was not a method that the participants had experienced, but when the theme emerged it was explored in the following interviews. The use of “rich media” items, such as key-concept videos and summary videos, has become increasingly popular in higher education (Rodgers *et al.*, 2017; Sadik, 2015). Key-concept videos and summary videos have proved to be a beneficial resource to students, enhancing their learning experience (Lam *et al.*, 2021; Hamutoglu *et al.*, 2020; Rodgers *et al.*, 2017). Luo and Kalman (2018, p. 11) found that summary videos “were helpful in facilitating students’ achievement of learning new knowledge and reinforcing previous knowledge; engaging students cognitively, emotionally, and socially; and motivating students intrinsically”.

It is essential to acknowledge potential challenges of using key-concept videos or summary videos (Austin, 2021), including the concern of spoon-feeding students without deep learning taking place. Some students might use these videos as their primary source for learning (Kay, 2018) resulting in surface-level learning and understanding, neglecting deeper engagement with the subject matter (Lubwana, 2020). These videos should be used in addition to lectures and should not replace lectures (Rajadell and Garriga-Garzón, 2017).

All participants were in favour of making such concept videos available (P1–P15) and participants viewed this as an additional learning opportunity (P2; P5; P9). Participant 4 claimed that lecturers knew exactly with which sections of the work students struggled with and which sections gave rise to numerous student questions (P1; P4). Making these concept videos available might reduce the queries lecturers received (P13), thus lightning their burden.

The key-concept videos would be beneficial for revision purposes (P2; P10; P13) – especially for topics covered at the beginning of the year that students are examined on at the end of the year (P4; P6; P8). Participant 3 stated: “There are definitely a few things in class that are more difficult than others, and during class you probably get all the easy stuff and then there is that one thing that you don’t understand and I think it would be very nice if a short video about the difficult things are made available.”

Participants 10 and 11 recommended that in addition to the key-concept videos, a summary video recording per topic could also be made available. This would provide students with the bigger picture and focus on the core concepts per topic (P11). When students study for exams, these summary videos could be the starting point per topic (P11).

Considering the opinions of the participants, it is recommended that lecturers provide students with key-concept videos and summary videos per topic. The key-concept videos could be made available after the lecture during which the concept was explained, and the summary videos could be made available just before the exam. Lecturers should bear in mind that these recordings might reduce student queries and that once these recordings have been made, they could be used in future academic years (given that the content stays the same).

### Conclusion and recommendations

Accounting lecturers may return to their pre-COVID-19 *modus operandi*, and the experiences gained during COVID-19 teaching and learning will be lost. The objective of the research was therefore to explore which COVID-19 teaching and learning methods which enhanced accounting students' learning experience should be applied at a residential university after the pandemic, based on accounting students' experiences. Using 15 semi-structured interviews, this study obtained an in-depth account of accounting students' experiences of teaching and learning methods used during the pandemic to inform decision-making on the best way forward. The study specifically showed the impact of various teaching and learning methods applied during COVID-19 on participants perceived learning experience.

Based on students' experiences, the following COVID-19-period teaching and learning methods are recommended for implementation in the future:

- (1) The flipped classroom: Lecturers should encourage students to prepare for the flipped classroom by emphasising the advantages that this methodology offers.
- (2) The discussion forum: Clear rules about titling the query posted on the discussion forum should be communicated. Students who might not feel comfortable using the discussion forum should have the option of emailing the lecturer.
- (3) An electronic platform to ask questions during lectures: Clear rules should be communicated on the use of the electronic question platform. A second lecturer could answer the questions on the electronic question platform. If classes are streamed via Microsoft Teams, the chat function can be closed by students who experience the chats as a disruption and the lecturer could repeat the question asked in the chat function before answering. If classes are not streamed, another electronic question platform can be offered, and the lecturer could open and display the platform when answering questions.
- (4) Key-concept videos and summary videos per topic should be made available.

Literature indicates that some students might show resistance towards new or other teaching and learning methods being introduced (Stenkamp and Van Schalkwyk, 2022; Strelan *et al.*, 2020; Wang and Bonk, 2001) or be reluctant to make use of these methods (Ali *et al.*, 2021; Breen *et al.*, 2003; Lindner and Murphy, 2001; Meulenbroeks, 2020; Onwuegbuzie *et al.*, 2020; Wells *et al.*, 2008). It is recommended that lecturers clearly communicate the advantages of the teaching and learning methods introduced and explain to students how they would benefit from a mentioned method.

By implementing some of the COVID-19-period teaching and learning methods based on recommendations made by this study, blended active learning will be introduced into the accounting classroom. This presents an ideal opportunity to investigate other blended active

learning methods and is recommended as an area for future research. This study provided a strong foundation in increasing lecturers' technological knowledge required for technology integration in teaching (Mishra and Koehler, 2006) on which future researchers can build by considering content and pedagogical knowledge (TPCK).

A limitation of this study is that only students' perspectives were considered in addressing the research problem. It is unclear how accounting lecturers will react after the COVID-19 pandemic and what teaching and learning changes will be implemented. As an area for future research, the experiences of accounting lecturers who changed their approach to teaching and learning after the pandemic can be explored.

This study contributes to accounting education by responding to numerous calls to gain an understanding of teaching and learning methods applied during the pandemic to inform decision-making for the future (Boshoff-Knoetze *et al.*, 2022; Du Plessis *et al.*, 2022; Toquero, 2020). The recommendations provided in this study could inform lecturer decision-making regarding which teaching and learning methods to apply after the COVID-19 pandemic to enhance students' learning experience in the future, while simultaneously reducing uncertainty and doubt about these methods. The findings of this study confirmed that there is a need for blended active learning in the accounting classroom.

#### Note

1. This study followed Braun and Clarke's (2006, p. 87) step-by-step guide for thematically processing and analysing the data.

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### Appendix 1

Table A1 includes the participant number, the year group of the participant, the gender and age of the participant, the language of instruction in the postgraduate year and the duration of the interview.

The 2021 postgraduate group consisted of 424 students and the 2022 postgraduate group consisted of 369 students.

All participants received undergraduate instruction in their first language.

No international students participated in this study. The social circumstances of the participants were good and online access was equal amongst all the participants.

Participant number	Postgraduate year group*	Gender	Age in postgraduate year	Language in postgraduate year	Duration of interview
P1	2021	Female	22	Second	37 min
P2	2022	Female	22	First	42 min
P3	2022	Male	22	Second	41 min
P4	2022	Male	22	Second	48 min
P5	2022	Female	21	Second	53 min
P6	2022	Male	22	First	36 min
P7	2022	Female	22	First	43 min
P8	2021	Male	22	Second	55 min
P9	2021	Female	22	Second	50 min
P10	2022	Female	24	Second	48 min
P11	2021	Male	24	Second	63 min
P12	2021	Male	23	Second	37 min
P13	2021	Male	22	First	54 min
P14	2021	Female	23	Second	44 min
P15	2021	Male	23	First	52 min

**Note(s):** \* The 2021 postgraduate students would have experienced face-to-face in their first and second year, ERTLA in their third year and ARTLA in their postgraduate year. The 2022 postgraduate students would have experienced face-to-face in their first year, ERTLA in their second year, ARTLA in their third and most of their postgraduate year

**Source(s):** Compiled by the author

**Table A1.**  
Summary of interviews conducted

## Appendix 2

The following interview guide was used in conducting the semi-structured interviews. To facilitate an increase in lecturers' knowledge of the technologies under consideration (Mishra and Koehler, 2006) the questions were formulated in such a way to ensure that rich, descriptive data containing information on how students experienced all the teaching and learning methods under consideration in this study was obtained.

### Final interview guide:

Thank you for your willingness to participate in this study. The aim of the interview is to obtain an in-depth understanding on how you experienced **accounting** teaching and learning during the COVID-19 pandemic. I want to use this information to inform decision-making of accounting teaching and learning post the pandemic.

### Questions

In 2020 the COVID-19 pandemic forced the University to move from a face-to-face teaching method to emergency remote teaching, learning and assessment (ERTLA). In 2021 when some of the restrictions were lifted the University moved to augmented remote teaching, learning and assessment (ARTLA). In 2022 the ARTLA method continued allowing more students to attend face-to-face lectures as restrictions were even further relaxed. Take note that the following questions only relate to your experience of **accounting** teaching and learning methods.

- (1) Can you tell me about your experience of ERTLA in accounting teaching and learning?
- (2) Can you tell me about your experience of ARTLA in accounting teaching and learning?
- (3) Based on your experience, what teaching method(s) would you suggest post Covid-19 restrictions?
- (4) What factors (if any) do you consider to be key in the learning process that were missing in ERTLA/ARTLA learning?
- (5) What is your perspective of the flipped classroom method?
- (6) How did you experience the discussion forum on Sunlearn?
- (7) What is your perspective on introducing key concept videos or summary videos?
- (8) Can you think of anything else that would be important that we did not discuss or that we have missed in considering the most appropriate accounting teaching and learning methods to apply post Covid-19.

**Source(s):** By the author

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