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# Students' preferences for teaching and exam delivery modes in accounting education post-COVID-19 pandemic

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The COVID-19 pandemic has sparked a revolution in the delivery of modules in higher education. This paper aims to answer the research question: What are the preferences of undergraduate accounting and finance students regarding teaching delivery and exam modes following the COVID-19 pandemic lockdown? Specifically, we focus on campus, online synchronous, and hybrid synchronous teaching delivery and exam modes. To address this research question, we conducted an online questionnaire surveying students at a U. K. university. Our data show that modules involving calculations, such as financial accounting, are preferred to be taught on campus, whereas theoretical modules like business law are preferred to be taught online. Additionally, the data reveal reasons for these preferences, including community learning, isolation, concentration, and access to recordings. This research contributes valuable insights into optimising accounting education. We advocate for flexibility in both teaching and exam delivery within accounting education, recognising the diverse needs of students.

#### ARTICLE HISTORY

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Hybrid synchronous teaching; online synchronous teaching; oncampus teaching; on campus, online synchronous and hybrid synchronous exam; accounting education

#### Introduction

Due to the COVID-19 pandemic, many universities transitioned from offering on-campus teaching with on-campus exams to online teaching with online exams and subsequently adopted a hybrid synchronous teaching approach. Our study addresses the following research question: What are the preferences of undergraduate accounting and finance students regarding teaching delivery and exam modes following the COVID-19 pandemic lockdown?

It is relevant to explore the current research question in light of the experiences of undergraduate accounting and finance students during the post-COVID-19 pandemic period. The research presented here will benefit accounting educators worldwide by providing a deeper understanding of students' preferences in teaching delivery and exam modes amid the post-COVID-19 pandemic experience. This period witnessed a transition from 100% on-campus teaching to 100% online synchronous teaching, followed by the adoption of a hybrid synchronous approach necessitated by social distancing measures.

To address the research question, data was collected through an online questionnaire administered to these students. Subsequently, the questionnaire responses were analysed using a combination of quantitative and qualitative approaches, including descriptive statistics, correlation analysis, multiple logistic regression, and thematic analysis. Furthermore, we explored whether preferences for teaching delivery and exam mode varied based on specific student characteristics. The quantitative results indicate a preference for the online synchronous teaching delivery mode among female students and caregivers. Regarding exam mode, quantitative data reveal a strong preference for online synchronous exams among caregivers. Thematic analysis explains the reasons provided by students in favour of one mode of teaching delivery or exam mode over another.

The way we all had to live, work, teach, and communicate with one another throughout the world was drastically changed by the COVID-19 pandemic lockdown. Universities faced both new opportunities and challenges (Carolan et al., 2020). Within a few weeks, the pandemic accelerated academics' adoption of the technology that was already available.

The research was conducted at a university in the United Kingdom (U.K.), primarily examining undergraduate accounting and finance degree programmes, specifically those taking Financial Accounting and Reporting modules in years 1-3. The university has a diverse student body, providing an opportunity to gain a broad range of insights into their experiences with post-pandemic lockdown teaching and exam modes. Students were exposed to a range of teaching delivery modes, including pre-COVID-19 on-campus face-to-face teaching, COVID-19 pandemic online synchronous teaching, and hybrid synchronous teaching. The hybrid synchronous delivery mode in financial accounting years 1-3 modules encompassed online lectures, socially distanced seminars, and on-campus lectures and seminars available for synchronous online attendance. The exam formats varied from traditional, closed-book, two to three hours campus exams to open-book, 24-hour online exams. Given the experience of the 24-hour online exams during the COVID-19 pandemic and the allowance of remote invigilation by leading professional accounting bodies, students were asked about their preferences between an invigilated online and an on-campus closed-book exam lasting two to three hours. This addresses a literature gap; despite online teaching being a prominent research topic for the past three decades, study programmes focused on it remain limited (Hofer et al., 2021).

One of the most significant transformations in teaching occurred when the U.K. Prime Minister, Boris Johnson, announced on 16 March 2020, 'Now is the time for everyone to stop non-essential contact and travel'. Following this, U.K. higher education providers had to revolutionise their delivery of student teaching and assessments. On 23 March 2020, the first official national lockdown was announced in the U.K., with the PM ordering people to 'stay at home' (Institute for Government, 2022).

Due to this unexpected announcement on 16 March 2020, academics and students alike were unprepared to transition to online delivery and exams for the remainder of the academic year 2019-2020. Although technology had been available for some time, the academics at the case university had not seen the need to utilise it. With only four weeks of teaching left, both academics and students had to quickly learn how to deliver and receive education using unfamiliar software packages. The VLE platform

Moodle, along with email instructions, Panopto video recordings, and MS Teams, were employed to communicate and teach students for the remainder of the academic year. During the final four weeks of semester 2 of the academic year 2019-2020, academics used a combination of synchronous and asynchronous methods for online teaching.

The accounting and finance degree is accredited by professional accounting bodies, necessitating alignment of syllabi and standards with their modules. Given this unprecedented time as a one-off and the approval of professional accounting bodies, the exams initially designed for on-campus, two to three hours closed-book exams were adapted during the lockdown to be conducted off-campus and open-book over a 24-hour period. Students submitted their exam attempts by uploading them to Moodle.

As depicted in Figure 1, during the academic year 2020–2021, the university adjusted and became well-prepared for the delivery of online lectures and socially distanced oncampus seminars. The subsequent lockdown, on 5 November 2020, led the university to shift back to full online synchronous delivery, along with a transition to a 24-hour openbook exam format for the remaining academic year.

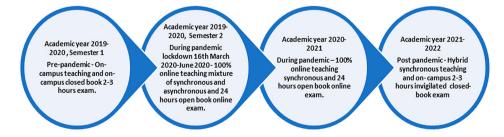
In the academic year 2021-2022, the university adopted a mix of on-campus, online, and hybrid synchronous module delivery. A major concern for accounting schools worldwide was maintaining the integrity of exams throughout the pandemic. Consequently, the academic year 2021-2022 saw the return of on-campus exams as professional accounting bodies tightened their regulations, allowing online closed-book exams only if universities used appropriate monitoring software. The new norm for the academic year 2021-2022 involved academics teaching hybrid synchronously, encompassing both on-campus and live-streamed classes for students, as shown in Figure 1.

The delivery model, teaching delivery modes, and exam approach before, during, and after the post-pandemic COVID-19 lockdown for financial accounting and reporting are illustrated in Figure 1.

Finally, in the academic year 2022-2023, students' teaching was fully on campus, with an on-campus exam. The next section highlights the contribution of the current paper, which complements other studies and seeks to fill a literature gap.

# Contribution

This study, prompted by Sangster et al.'s (2020) call to examine the pandemic's impact on accounting education, seeks to contribute to the literature in several ways. First, it



**Figure 1.** Teaching and exam approaches.

provides insights into the preferences of undergraduate accounting and finance students regarding teaching delivery and exam modes (on-campus, online synchronous, and hybrid synchronous) in the aftermath of the COVID-19 pandemic lockdown. Additionally, the study explores whether these preferences correlate with individual student traits, such as year of study, gender, age, disability, caregiver status, work commitments, and commute time. Moreover, the study identifies common obstacles and challenges faced by students in the post-COVID-19 era. It emphasises the importance of accessibility and inclusive education, highlighting the need for essential resources such as a personal computer (PC) or laptop, reliable Wi-Fi, and quiet study areas.

Secondly, our research complements prior studies by examining students' perspectives and preferences for all three teaching delivery modes. Additionally, we have incorporated further characteristics, such as investigating the socio-economic factors related to students' access to a PC or laptop, Wi-Fi, and a quiet study area. We also explore caring responsibilities as factors that can impact student preferences. Previous research primarily focused on the pros, cons, and delivery modes (Mann & Henneberry, 2012; Rahnert, 2022), as well as the effectiveness of different teaching delivery methods (González-Gómez et al., 2016; Lockman & Schirmer, 2020; Pei & Wu, 2019), without considering all the characteristics we have studied post-the COVID-19 pandemic experience.

Our quantitative data reveal students' preferences for the mode of teaching delivery, with female students and caregivers showing a preference for the online synchronous teaching delivery mode. The qualitative data further reveal that proponents of online synchronous teaching delivery appreciate access to recorded classes (Aldamen et al., 2015) and the ease of accessing online classes (Nishimwe et al., 2022).

The ambiguity surrounding the management of both online and on-campus teaching components is a primary concern associated with hybrid synchronous teaching delivery (Jones et al., 2007). The current study contributes by offering valuable insights into students' preferences regarding the implementation of hybrid synchronous teaching within the degree programme. Our qualitative data reveals a preference for on-campus teaching, especially in technical modules like financial accounting, compared to online synchronous teaching, which is preferred in more theoretical modules such as business law. The result of the current study is consistent with the findings from Ahmadi et al. (2019), which suggest that learning quantitative modules online is more challenging than learning qualitative modules.

Furthermore, qualitative themes emerging from the research that favour on-campus teaching include the avoidance of technological problems (Jaradat & Ajlouni, 2021), community learning, and improved concentration. Moreover, the qualitative data also shed light on the significant increase in mental health challenges and feelings of isolation and loneliness among university students during online synchronous teaching during the pandemic (Almossa, 2021), thus favouring on-campus teaching delivery modes.

Prior researchers have investigated exam performance and online versus on-campus exams (Aldahray, 2024; Desouza & Fleming, 2003; McCarthy et al., 2019; Werhner, 2010). The current study makes a significant contribution to accounting education by prompting undergraduate accounting and finance degree students across all years to express their preferences for exam modes based on their reflections on the post-COVID-19 pandemic experience. Additionally, it examines how these preferences vary among students with different traits. Quantitative data reveal that caregivers strongly

prefer online synchronous exams, with qualitative data citing ease of access and reduced stress. Proponents of on-campus exams found accounting modules easier to write calculations for than typing them, expressed greater ease of concentration on campus, and did not have to deal with technological difficulties. Our study also highlights that some students desire the option of both on-campus and online synchronous exam modes.

Finally, the current paper aims to contribute to the discussion by advocating for flexibility in both teaching delivery and exam modes within accounting education, given the diverse student body and their varied needs. The remainder of this paper is structured as follows: it begins by discussing relevant literature on different delivery modes, followed by an overview of the research methodology. The findings section presents the results, followed by a discussion, and, finally, the study concludes with an exploration of limitations.

# Literature review and research question development

Much of the prior literature addresses the pros and cons of different modes of teaching, whether traditional, online, or hybrid (asynchronous and synchronous). The first part of this literature review summarises the relevant theories and the effectiveness of online, hybrid (asynchronous and synchronous), and traditional on-campus teaching. The second part of the literature then focuses on factors affecting student satisfaction and perceptions of online teaching. The third part looks at comparisons between traditional oncampus teaching, online teaching, and hybrid (asynchronous and synchronous) teaching. The final part of the review focuses on exam preference modes for online and on-campus exams. This links to our research question.

Our study aims to fill the literature gap in students' preferences for teaching and exam modes by focusing mainly on undergraduate accounting and finance majors and their characteristics after the COVID-19 experience.

# Online teaching

According to Moore et al. (2011), an online learning system provides access to learning opportunities using some technology. In our studies, synchronous online teaching occurred when academics and students gathered at the same time on MS Teams and interacted in real time. Asynchronous teaching took place when students were provided with Panopto recordings of live classes or pre-recordings, whereby they could access the material at their own pace. Numerous universities have embraced online learning, and others are still in the trial phase (Pokhrel & Chhetri, 2021). The online learning environment differs significantly from the traditional classroom circumstances when it comes to learners' inspiration, fulfilment, and interaction (Yeşilyurt, 2021).

E-learning is picking up notoriety in our world today (Shahzad et al., 2021). The community of inquiry has offered a framework that serves as a baseline for online teaching and learning. The framework proposes that learning happens through three interlinked factors: the first is social presence; the second is cognitive presence; and the third is teaching presence (Garrison et al., 2001).

Online learning originated and developed from recordings of lectures that were simply placed online to well-developed programmes using asynchronous and synchronous delivery modes (Martin et al., 2019). A properly developed online programme will focus on engaging students in a variety of tasks, employing all possible technological tools, using the identified communication channels, and giving timely feedback where communication with learners is established (Carr-Chellman & Duchastel, 2000; Holzweiss et al., 2014; Malan, 2020; Wandler & Imbriale, 2017).

Cognitivist, behaviourist, and constructivist theories have all contributed to the design of online materials in several ways, with cognitivists contributing to the learning process (how), behaviourists contributing to the learning of facts (what), and constructivists contributing to real-life and personal application. Connectivism should also guide the development of online learning. E-learning theory originated from the major theory of connectivism because it focuses on how technologies should be employed to create and achieve effective learning (Anderson, 2008).

Online education has become increasingly popular for its utmost flexibility in terms of the availability of learning anywhere, the cost efficiency of assembling and disseminating instructions and course content, and its ability to handle more students while maintaining a quality of learning outcome comparable to face-to-face classes (Nishimwe et al., 2022). Educators and researchers have led studies to scrutinise the elements that impact the effectiveness of online learning (Zarzycka et al., 2021) and various aspects of students' perspectives on online learning compared to face-to-face learning (Sangster et al., 2020).

The barriers to traditional learning classes are one reason students may prefer online learning to on-campus learning (Rahnert, 2022). Mann and Henneberry (2012) identified some of these barriers as being conflicting schedules with work or family time, traffic, and physical distance to the location of classes offered. Other factors were institutional barriers, including place, time, and term availability, which prevented students from enrolling in their preferred face-to-face class. The current paper adds to this body of knowledge by identifying additional benefits and downsides of online teaching.

# Hybrid (asynchronous and synchronous) teaching

Hybrid teaching is when a portion of the learning is face-to-face and a portion is online, where more activities are online and less time is spent in the traditional classroom environment (Bennett et al., 2020). This definition is much broader than that used in previous research, which has identified flexible delivery as the mere introduction of technology (Dowling et al., 2003).

In our study, students' hybrid synchronous teaching experience took place in 2021– 2022, whereby students had the option to attend on-campus classes or join online synchronous live streamed classes due to various reasons, e.g. being stranded abroad or isolating. A hybrid flexible delivery model is a teaching model that introduces flexibility using electronic modes of delivery in addition to maintaining regular face-toface classes.

One common concern linked to hybrid synchronous teaching delivery is the uncertainty surrounding the balance between online and face-to-face learning components (Jones et al., 2007). The current paper contributes by elucidating students' perspectives on the preferred implementation of hybrid synchronous teaching within the degree.

# Traditional on-campus, face-to-face teaching

Traditional face-to-face teaching continues to be the main delivery mode for an undergraduate accounting and finance degree at the university studied post-COVD-19 lockdown pandemic. This is because of major weaknesses in online learning, such as students' feelings of isolation and the lack of a sense of community in class (Peytcheva-Forsyth & Aleksieva, 2021). Further issues with online learning were linked to increased student dropout rates (Frankola, 2001; Ryan, 2001). There are also weaknesses linked to classmates in terms of the reduced collaboration with peers in an online environment, in addition to the technological problems associated with online learning (Song et al., 2004).

# Factors affecting student satisfaction and perceptions of online teaching

Different studies have concluded that there are positive and negative perceptions among students, who are the key stakeholders in online learning. Several factors have been identified to impact students' perceptions of online learning (Gopal et al., 2021). According to some studies, the ability of the course lecturer to interact and incorporate critical thinking is a crucial factor that affects students' perceptions of online learning (Harsch et al., 2021; Picciano, 2002; Swan et al., 2000). The flexibility of online learning and the emphasis on interaction as a method of learning are seen as major factors affecting students' perception or preference for online learning (Baber, 2022; McCall, 2002; National Centre for Vocational Education Research, 2002); and general presence (Johnson et al., 2008; Kim et al., 2005). The rate of interactivity in online settings is also a crucial factor in student satisfaction with online learning (Arbaugh & Hwang, 2015; Gleason, 2021), as is the ability to interact with tutors and peers in an online class (Peimani & Kamalipour, 2021). This concludes that an effective online class is based on course design (Kim & Kim, 2021), well-planned course content, the use of advanced technology, and clear instructions and feedback (Gilbert, 2015).

Further studies have explored the acceptance of e-learning, the students' satisfaction rate, and other factors affecting distance learning success and efficiency (Sher, 2009; Yen et al., 2018). There is a vast literature on factors affecting student satisfaction and performance during the pandemic of online classes (Rajabalee & Santally, 2020). A study identified the quality of teaching, timely feedback, course design, and student expectations as the four obvious determining factors for students' learning outcomes and satisfaction during online classes (Yen et al., 2018). Factors identified to affect students' perceptions of online versus face-to-face learning have been included in our study's investigation, and the findings are consistent with the abovementioned literature. Furthermore, the current paper supplements this literature by showing that the modules studied impact teaching mode preferences. In our study, we present evidence of students associating their preferences for delivery modes with whether the module is perceived as technical or theoretical. This implies that, to effectively address students' needs, the nature of the course, such as a technical financial accounting module or a theoretical law module, should be a factor taken into consideration by academics and senior university management when deciding on the delivery mode.

Beginning in the mid-2000s, the research focus was on why students might prefer online classes to face-to-face classes. Accordingly, it was found that students who preferred looking for abstract concepts to concrete learning experiences demonstrated better performance in online learning (Kolb, 1999). Other studies addressed the individual characteristics of learners that can affect students' choice of online or face-to-face on-campus learning. Mann and Henneberry (2012) included the undergraduate major, age, gender, and work status, whether full-time, part-time, or none, as characteristics that can impact students' preferences. Maheshwari (2021) looked at intrinsic factors like motivation and confidence as well as extrinsic factors, which include the external environment and culture, in addition to perceived usefulness and perceived enjoyment. Our research added to the above characteristics by investigating the socio-economic factors of students' having access to a PC or laptop, Wi-Fi, and a quiet study area, as well as exploring caring responsibilities as factors that can impact student preferences.

# Comparison between traditional on-campus learning, online (asynchronous and synchronous) learning, and hybrid (asynchronous and synchronous) learning

Several comparative studies have been conducted to determine whether online or hybrid (asynchronous and synchronous) learning is superior to traditional face-to-face teaching (González-Gómez et al., 2016; Lockman & Schirmer, 2020; Pei & Wu, 2019). The findings of several studies suggest that students perform better with online learning than with traditional on-campus classroom learning (Henriksen et al., 2020). Empirical studies attempted to investigate students' and faculty's perceptions of online learning versus the traditional classroom environment. Some have investigated the accessibility and flexibility of web-based instructions (Woldeab et al., 2020), the degree of interaction online, and the instructor's and learner's motivations, skills, and perceptions (White, 2004). It was found that there was no considerable difference between online and traditional on-campus learning in terms of student satisfaction and academic performance. Online classes can be just as effective as traditional classes if they are designed correctly (Rajabalee & Santally, 2020).

#### Online versus on-campus exams

Online learning was debatable, along with students' online versus on-campus exam preferences. Exams had to be adapted to be taken online during COVID 19, leading to a different student experience (Gil-Jaurena & Domínguez, 2022).

As well as students' preferences, researchers have also investigated exam performance and online versus on-campus exams. There is contradictory evidence about exam performance and moderation. A study conducted by Desouza and Fleming (2003) on online exams and traditional exams indicated that an online exam has better results than traditional exams. However, a study by Werhner (2010) showed no significant difference in student performance on exams between online and on-campus students. There is a literature gap in students' preferences for online, on-campus, or a combination of both exam modes offered in accounting education post-COVID-19 experience, which this current paper attempts to fill. The current research contributes further by exploring



students' traits and their preferences for exam sitting modes. The next section outlines the research methodology.

# Methodology

# **Participants**

Firstly, the university's ethics committee approved the online questionnaire, participant information, and consent forms. Thereafter, participants were invited to take part in the online questionnaire. All 604 undergraduate students registered on all three years of financial accounting and reporting module VLE sites were invited to participate in the online questionnaire following the completion of their academic year in June 2022. The Financial Accounting and Reporting modules in all three years of the degree have two pieces of assessment. The first assessment, weighted at 40-50% of the final module mark, is a written take-away piece of work that ranges from a case study in year 1, an annual report analysis in year 2, and an essay in year 3. The second assessment component, which holds a weight of 50% for first-year students, involves an end-ofsemester invigilated closed-book exam lasting two hours. Conversely, second- and third-year students are required to complete an invigilated closed-book exam lasting three hours, which contributes 60% towards the final module mark.

The students at the case university were informed both in class and by email to reflect on their experiences of teaching and exams they had experienced during the lockdown and social distancing. The teaching delivery modes were online synchronous, oncampus, and hybrid synchronous. During the isolation period, the exam mode was a 24-hour online open book exam. Consequently, second- and third-year students from the academic year 2021-2022 are well-positioned to share comprehensive insights into their experiences with various teaching and exam modes, drawing from their personal hindsight. However, first-year students would be limited to sharing their teaching experiences on the degree, utilising online, hybrid synchronous, and on-campus delivery modes, as they have not taken an online accounting exam. The rationale for requesting that the questionnaire be completed at the end of the academic year is to ensure students' experiences from their full academic year of study are incorporated. 96 usable responses were received, i.e. a 16% response rate.

The questionnaire was pre-tested by two academics and three students, which led to minor changes in wording for clarity and layout. The questionnaire was distributed to all students enrolled in the financial accounting and reporting modules throughout their three-year degree course. The online questionnaire was available for a month, covering the critical final semester exam period.

# Study design and conduct

Through statistical analysis, the research design employed a mixed-method approach, utilising both quantitative and qualitative methods to investigate students' preferences for post-pandemic teaching delivery experiences, specifically focusing on online synchronous, hybrid synchronous, and on-campus traditional modes. Mixed-method research integrates qualitative and quantitative techniques within a single investigation, providing a more comprehensive understanding of the phenomenon under investigation compared to a single approach (Creswell & Clark, 2017). Combining both strategies balances the limitations of one with the strengths of the other, thereby increasing confidence in the results through mutual confirmation (Niglas, 2004).

An online Google Form questionnaire was employed for this research due to its numerous advantages. It offers easy accessibility for all students, saves time by generating standardised and uniform responses, and allows for instant data availability, facilitating seamless transfer into spreadsheets and specialised statistical software. This questionnaire design was selected as the most suitable method for gathering evidence regarding the research question. It comprised three sections, as outlined in Table 1 and detailed in the appendix.

Part A questions asked about students' characteristic data, e.g. degree studied, year studied, gender, age, disability, caring responsibilities, commute time to the university using public transport, employment status, followed by easy personal access to a PC, Wi-Fi, or study area. The socio-economic aspect of the study was addressed through accessibility due to the closure of local libraries and university study spaces. The case university did, however, support students by loaning laptops during the first lockdown.

Part B questions asked students' preferences for teaching after the COVID-19 pandemic based on the actual teaching they received from the case university (i.e. on campus, online synchronous, or hybrid synchronous) and their reasons for those preferences. While the first-year students did not experience the lockdown on the accounting and finance undergraduate degree, the second and third-year students did. However, all three years of the cohort have experienced online synchronous, hybrid synchronous, and on-campus face-to-face teaching.

Part C included questions that asked students about their preferences for future exam modes, ranging from two to three hour closed-book remotely invigilated online exams to on-campus invigilated traditional exams. This question was posed in light of the experiences of second- and third-year students who had previously taken online 24-hour exams and as a consideration for a potential future direction, given that professional accounting bodies (PABs) have already integrated remote exams into their practices. To maintain their existing accreditation, universities must adhere to the regulations set forth by

**Table 1.** Instrument constructs and items.

Part A student's characteristics (Questions 1 -9)

- Course discipline
- Year studying in
- Gender
- Age
- Disability
- Caregiver
- Commute time to the university
- Personal access to PC/Wi-Fi/quiet study area during lockdown

Part B – Students preference to teaching mode. (Questions 10-20)

On-campus/Online synchronous /Hybrid synchronous and why? What would an ideal hybrid synchronous teaching look like?

Part C - Students preference to exam mode.

- On campus two or three hours invigilated and why?
- (Questions 21–22)
- Online two or three hours invigilated and why?



PABs regarding invigilated exams. As noted by Al Mahameed et al. (2022), academics serve as translators of PABs' accounting pedagogy, rather than exercising academic freedom and promoting critical thinking.

# Approach to data analysis

As mentioned earlier, the primary data was collected using Google Forms. The quantitative data analysis was conducted using an Excel spreadsheet and Stata 15.0 (Norton, 2019). Descriptive statistics and correlation tests were employed in the analysis, with p-values of 0.01, 0.05, and 0.1. Given that our dependent variable is categorical, the data were analysed using a multiple logistic regression model. In our study, we assessed the correlation between students' preferences for teaching delivery and exam modes (online synchronous, on-campus, or hybrid synchronous) and their disability status, caregiver status, commute time, working status, access to a PC or Wi-Fi, and availability of a quiet study area. We excluded the students' year of study from the model because it rendered all other factors insignificant.

For analysing the qualitative data, an inductive thematic approach was employed (Braune & Clarke, 2006). During this process, all open-ended response was transcribed into Microsoft Word. The corresponding author initially familiarised themselves with the responses. Subsequently, each response was tentatively assigned a code. These initial codes were then discussed, refined, and agreed upon by all authors for consistency. The authors then collaborated to cluster the codes into overarching themes. Following the procedural guidelines outlined by Braun and Clarke, this thematic analysis of the questionnaire responses facilitated the identification and appreciation of the participants' most significant shared experiences. The questionnaire results are presented in the subsequent section.

# **Findings**

A total of 96 students completed the online questionnaire. The questionnaire data analysis is conducted under three headings: participants' details, preferred teaching delivery mode, and preferred invigilated exam mode.

# Participants' details

Part A of the questionnaire addressed students' characteristics, including age and gender, among other details (see Table 1). Table 2 illustrates that students pursuing undergraduate degrees in accounting and finance were the most likely to respond, constituting 68%. They were followed by students studying business with accounting (23%), and economics with accounting (9%). The sample is representative of the total number of students in each course, as there are fewer students enrolled in business or economics programmes with an accounting focus compared to those studying BA (Hons) Accounting and Finance. Participation originated from students in their first and second years, constituting 42% and 38%, respectively, with 20% from the third year. The limited response from third-year students might be due to their completion of the degree. In terms of gender distribution, 58% of student

Characteristics and other details	Frequency %
Degree studying	
Accounting and Finance	68
Business with Accounting	23
Economics with Accounting	9
Year of degree studying	
First	42
Second	38
Third	20
Gender	
Male	40
Female	58
Prefer not to say	2
Age	
18–24 years	71
25+ years	29
Disability	
Yes	4
No	92
Prefer not to say	4
Caregiver	
Yes	15
No	83
Prefer not to say	2
Working whilst studying	
Yes	65
No	35
Commuting time to university	
Under 30 min	17
30 min to 1 h	48
One-two hours	31
Two or more hours	4
Access to PC/Laptop	
Yes	95
No	5
Access to Wi-Fi	
Yes	97
No	3
Access to quiet study area	
Yes	84
No	16

responses came from females, 40% came from males, and 2% chose not to disclose their gender. Regarding age distribution, 71% of students were under the age of 25, while students over the age of 25 comprised 29% of the sample.

Table 2 further reveals several factors that could influence students' preferences for their chosen teaching delivery and exam mode. These factors encompass students with disabilities (4%), students who are caregivers (15%), working students (65%), and those with commutes of two or more hours (4%) to the university, regardless of their mode of transportation. Additionally, the questionnaire addressed the socio-economic aspect by inquiring about accessibility to necessary technology during the lockdown period (95% of students had access to a PC or laptop; 97% had access to Wi-Fi), as well as access to a suitable study environment (84% of students had access to a suitable place to study). These aspects could contribute to their preferences for a specific mode of teaching delivery and exam mode.

**Table 3.** Teaching delivery mode preference.

Teaching Delivery mode	Frequency %
Hybrid synchronous	47
On campus face to face	33
Online synchronous	20

# Preferred teaching delivery mode

To conduct this analysis, both Part A of the questionnaire and Part B of the questionnaire given in the appendix were used. The data analysis on the preferred teaching delivery mode was conducted using both quantitative and qualitative methods.

Table 3 summarises the teaching delivery mode preferences of all participating students in terms of frequency for questions 10, 12, and 14. The hybrid synchronous mode was the most preferred by 47% of students, followed by on-campus at 33%, and finally, the online synchronous mode by 20% of participants.

In the current study, the correlation has been assessed between students' preferences for teaching delivery modes (online synchronous, on-campus, or hybrid synchronous) and their disability status, caregiver status, commute time, working status, access to a PC or Wi-Fi, and availability of a quiet study area. The results of the correlation analysis in Tables 4-6 revealed the following findings:

Online Preferences (Table 4): There is no significant correlation between students' preference for the online teaching delivery mode and factors such as disability, caregiver status, commuting for more than 2 h to the university, employment status, and accessibility (PC, Wi-Fi, and study area).

On-Campus Preferences (Table 5): Students who prefer on-campus learning show a statistically significant negative correlation (at a significance level of 0.05) when a student is a caregiver and commutes for more than 2 h to the university. Additionally, there is a positive, significant correlation (at a significance level of 0.1) between oncampus preferences and access to a study area. However, there is no significant correlation between on-campus preferences and access to a PC or laptop, as well as access to Wi-Fi.

Hybrid Synchronous Teaching Delivery Mode (Table 6): For students who prefer the hybrid synchronous teaching delivery mode, there is a positive correlation (at a significance level of 0.01) with commuting for more than 2 h. However, there is no significant correlation with any of the other factors examined.

**Table 4.** Correlation students' online synchronous delivery mode preferences.

	Online	Disability	Caring	Commute	Working	Access to PC	Wi-Fi	Study Area
Online	1.000							
Disability	-0.0908	1.000						
Caregiver	0.1477	0.1758*	1.000					
Commute	0.0146	0.2331**	0.1984*	1.000				
Working	-0.0148	-0.0116	0.1247	0.1673	1.000			
Access to	0.1164	-0.2381**	-0.4317***	-0.1641	-0.1736*	1.000		
PC								
Wi-Fi	-0.0610	-0.2400**	-0.5976***	-0.3203***	-0.1330	0.4968***	1.000	
Study area	-0.1463	-0.0690	-0.3663***	-0.1579	-0.3187***	0.2865***	0.4174***	1.000

<b>Table 5.</b> Correlation	students'	on-campus	delivery	mode	preferences
Tubic 3. Conclution	Judenie	on campus	uclively	mouc	preferences.

	On Campus	Disability	Caring	Commute	Working	Access to PC	Wi-Fi	Study Area
On	1.000							
Campus	1.000							
Disability	0.0236	1.000						
Caregiver	-0.2325**	0.1758*	1.000					
Commute	-0.2945***	0.2331**	0.1984*	1.000				
Working	-0.0770	-0.0116	0.1247	0.1673	1.000			
Access to	-0.1326	-0.2381**	-0.4317***	-0.1641	-0.1736*	1.000		
PC								
Wi-Fi	0.1270	-0.2400**	-0.5976***	-0.3203***	-0.1330	0.4968***	1.000	
Study area	0.1826*	-0.0690	-0.3663***	-0.1579	-0.3187***	0.2865***	0.4174***	1.000

**Table 6.** Correlation students' hybrid synchronous delivery mode preferences.

	Hybrid synchronous	Disability	Caring	Commute	Working	Access to PC	Wi-Fi	Study Area
Hybrid	1.000							
Disability	0.0502	1.000						
Caregiver	0.1018	0.1758*	1.000					
Commute	0.2665***	0.2331**	0.1984*	1.000				
Working	0.0846	-0.0116	0.1247	0.1673	1.000			
Access to	0.0323	-0.2381**	-0.4317***	-0.1641	-0.1736*	1.000		
PC								
Wi-Fi	-0.0712	-0.2400**	-0.5976***	-0.3203***	-0.1330	0.4968***	1.000	
Study	-0.0557	-0.0690	-0.3663***	-0.1579	-0.3187***	0.2865***	0.4174***	1.000
area								

After conducting the correlation test, multiple logistic regression models, each including the aforementioned variables, were executed. Based on the data from Tables 7-9, which present multiple logistic regression analyses for teaching delivery modes, the following models appropriately address the research question concerning teaching delivery mode p references:

- 1. logit (online syn.) = -4.572 + 0.823 caregiver + 1.756 gender 1.554 disability(Table 7)
- 2. logit (on-campus) = -0.206 2.065 caregiver 0.171 gender + 0.114 disability(Table 8)
- 3. logit (hybrid syn.) = 0.6822 + 0.483 caregiver 0.5682 gender + 0.889 disability(Table 9)

These models provide insights into the factors influencing students' preferences for teaching delivery modes.

Table 7. Multiple logistic regression on online synchronous teaching delivery mode preference.

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Online	Coefficient	Std. Err.	Z	P > [Z]	[95% Conf	. Interval]
Caring1	0.8234668	0.4773873	1.72	0.085	-0.112195	1.759129
Gender MFN	1.755762	0.7275102	2.41	0.016	0.3298684	3.181656
Disability1	-1.553942	0.9192024	-1.69	0.091	-3.355545	0.247662
_Cons	-4.572793	1.394948	-3.28	0.001	-7.306841	-1.838745

Table 8. Multiple logistic regression on on-campus teaching deli	erv mode preference.
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Campus	Coefficient	Std. Err.	Z	P > [Z]	[95% Conf	. Interval]
Caring1	-2.064841	1.056526	-1.95	0.051	-4.135594	0.0059122
Gender MFN	-0.1708302	0.4414518	-0.39	0.699	-1.03606	0.6943995
Disability1	0.1140738	0.377533	0.30	0.763	-0.6258773	0.8540248
_Cons	-0.206279	0.7447121	-0.28	0.782	-1.665888	1.25333

Table 9. Multiple logistic regression on hybrid synchronous teaching delivery mode preference.

Hybrid	Coefficient	Std. Err.	Z	P > [Z]	[95% Conf. Interval]	
Caring1	0.4837812	0.4308274	1.12	0.261	-0.3606249	1.328187
Gender MFN	-0.5681616	0.4076821	-1.39	0.163	-1.367204	0.2308806
Disability1	0.0888645	0.3423428	0.26	0.795	-0.5821152	0.7598441
_Cons	0.682185	0.6829119	1.00	0.318	-0.6562978	2.020668

In the first model, the online mode is represented as a dummy variable with a value of 1 if the student prefers the online synchronous approach and 0 if the student does not prefer the online approach. This indicates that the probability of students preferring an online synchronous teaching approach increases by 0.823% when the likelihood of the student being a caregiver increases by 1%. Conversely, the probability of students not preferring the online teaching approach decreases by 0.823% when the probability of the student being a caregiver increases by 1%. Similarly, the probability of students preferring an online synchronous teaching approach increases by 1.756% when the likelihood of the student being female increases by 1%, while the probability of students not preferring the online mode decreases by 1.756% when the likelihood of the student being female increases by 1%. Conversely, the probability of students preferring an online teaching approach decreases by 1.554% when the likelihood of the student being disabled increases by 1%, and the probability of students not preferring the online approach increases by 1.554% when the likelihood of the student being disabled increases by 1%. We excluded the students' year of study from the model because it rendered all other factors insignificant. No other factors showed significant effects on students' preference for the online synchronous teaching approach (Table 7).

In the second model, the on-campus mode is represented as a dummy variable with a value of 1 if the student prefers the on-campus synchronous approach and 0 if the student does not prefer the on-campus approach. This reveals that the probability of students preferring the on-campus synchronous teaching approach decreases by 2.065% when the likelihood of the student being a caregiver increases by 1%. Conversely, the probability of students not preferring the on-campus teaching approach increases by 2.065% when the likelihood of the student being a caregiver decreases by 1%. There was no significant effect of any other factors on the probability of students' preference for the on-campus teaching approach (Table 8).

In the third model, the hybrid synchronous mode is represented as a dummy variable with a value of 1 if the student prefers the hybrid synchronous approach and 0 if the student does not prefer the hybrid synchronous approach. No significant effects of any factors were observed on the probability of students preferring the hybrid synchronous teaching approach (Table 9).

Due to the insignificance of the student year of study, the qualitative responses to teaching delivery mode have been analysed using three main headings: hybrid synchronous, on-campus, and online synchronous teaching delivery mode.

# Hybrid synchronous teaching delivery mode

Questions 14-17 of Part B in the questionnaire (as shown in the appendix) explore students' experiences with the hybrid teaching delivery mode. During the social distancing phase of the COVID-19 pandemic, the university in the study offered students the option to attend either on campus or join live-streamed classes online. International students stranded abroad, along with those who were isolating or identified as vulnerable, participated in this hybrid delivery mode. The extent to which the teaching delivery mode should be conducted online versus on campus is a recurring question in hybrid teaching (Jones et al., 2007). The main theme that emerged from the qualitative data regarding an ideal hybrid synchronous teaching approach included the delivery of 'specific lectures' through online synchronous delivery mode. Below are examples of student quotes organised by response (RS) that summarise these themes.

```
Specific lectures
```

Online is easier for theory-based modules. And calculations based on those should be face toface.

 $(RS_51)$ 

Financial Accounting and Analysis and Fundamentals of Finance should be on-campus as they're mainly numerical and practical-based modules. (RS 15)

# On-campus teaching delivery mode

The students' sense of alienation and the absence of a sense of community in the classroom were two significant weaknesses in online learning (Peytcheva-Forsyth & Aleksieva, 2021). The current study found, in line with Ryan (2001), that motivation, discipline, and time commitment were difficult with online teaching, as were internet issues (Almossa's, 2021), hence the preference for on-campus teaching.

The four primary themes that emerged from the qualitative data from on-campus teaching from question 11 can be categorised as 'community learning' (i.e. interacting with peers and tutors to enhance the learning experience), 'isolation', 'concentration', and 'technological issues'. Below are examples of student quotes organised by response, summarising these themes.

#### Community learning

I can follow much easier. I understand much better and have more and easier opportunities to ask questions of the teachers.

(RS\_07)

It is easy to understand and can be discussed with peers.  $(RS_42)$ 

#### Isolation

Learning online can very feel isolated. (RS\_68)

#### Concentration

I am able to concentrate more, and I also feel involved during onsite studies. (RS\_01)

Online learning gives me a headache as I cannot sit in front of a screen for more than 20 minutes. And hence, I do end up missing out on information. (RS\_91)

#### Technological issues

Unstable Wi-Fi networks may decrease the quality of education. (RS\_65)

Internet issues may arise. (RS 82)

Question 19 supplements question 11 by asking students what they like about on-campus teaching. The top reasons given for selecting on-campus teaching as per Figure 2 were: meeting fellow students and socialising (81%); asking academic questions directly (72%); and finally, (8%) saying it was easier to engage with and focus on.

# Online teaching delivery mode

One reason students favour online teaching over on-campus learning is because of the hurdles to on-campus learning (Rahnert, 2022). Conflicting schedules with work, family time, transportation, and the physical distance to the university were some of the hurdles noted by Mann and Henneberry (2012). The two primary themes that emerged from the qualitative data response to question 13 on online teaching can be categorised as 'access to recordings' and 'convenience'. Below are examples of student quotes organised by response that summarise these themes.

#### Access to recordings

Ability to go back to a recording, less interruptions, easier to be on time. (RS\_15)

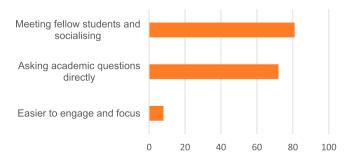


Figure 2. Reasons given by students for on-campus teaching preferences, by percentage.

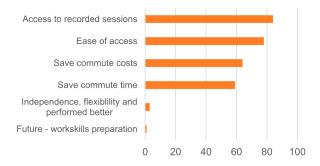


Figure 3. Reasons given by students for their online teaching preference, by percentage.

At least the lectures would be fully recorded, and I could access resources easily online. (RS\_84)

#### Convenience

It is convenient for me and saves me time. I can have more time to do other things. (RS\_18)

Convenient and preferable, with fewer travel expenses. I have family and work commitments. (RS\_27)

Figure 3 supplements the top reasons given for the preference for online education. The order of preference in our study for online teaching from question 18 response analysis was access to recorded sessions (84%), ease of access (78%), saving commute costs (63%), saving commute time (60%), independence, flexibility, and being able to perform better (3%), and finally developing future work preparation (1%).

#### Preferred invigilated exam mode

To carry out this analysis, we used both Part A and Part C of the questionnaire provided in the appendix. In addition to providing descriptive statistics regarding students' overall preferences for exam modes, we conducted correlation and multiple logistic regression analyses to explore the relationships between the variables: disability, caregiver status, gender, commute time, working status, and accessibility. Students' year of study was not included in the model as it leads to insignificance of all other factors.

Table 10 summarises the exam mode preferences of all participating students in terms of frequency for questions 21 and 22. The on-campus exam mode was the most preferred option for 44% of students, followed by the online exam mode at 38%. Additionally, 19% of participants expressed a desire for both exam options to be offered as participants selected 'yes' to both exam mode online and on campus.

Table 10. Exam mode preference.

Exam mode	Frequency %
On campus	44
Online synchronous	38
Hybrid both options available to students (on campus and online exam)	19

Table 11.	Correlation	students'	online	synchronous	exam	preferences
IUDIC III.	Correlation	Judenies	OHILL	3 y i i Ci ii O i i O u 3	CAUIII	preferences.

	Online	Disability	Caring	Commute	Working	Access to PC	Wi-Fi	Study Area
Online	1.000							
Disability	-0.0345	1.000						
Caregiver	0.2597**	0.1758*	1.000					
Commute	0.2520**	0.2331**	0.1984*	1.000				
Working	-0.1012	-0.0116	0.1247	0.1673	1.000			
Access to	-0.1089	-0.2381**	-0.4317***	-0.1641	-0.1736*	1.000		
PC								
Wi-Fi	-0.1082	-0.2400**	-0.5976***	-0.3203***	-0.1330	0.4968***	1.000	
Study area	-0.2000*	-0.0690	-0.3663***	-0.1579	-0.3187***	0.2865***	0.4174***	1.000

**Table 12.** Correlation students' on-campus exam preferences.

	On- campus	Disability	Caring	Commute	Working	Access to PC	Wi-Fi	Study Area
On-	1.000							
campus								
Disability	0.0337	1.000						
Caregiver	-0.2242**	0.1758*	1.000					
Commute	-0.2378**	0.2331**	0.1984*	1.000				
Working	0.1262	-0.0116	0.1247	0.1673	1.000			
Access to	0.1122	-0.2381**	-0.4317***	-0.1641	-0.1736*	1.000		
PC								
Wi-Fi	0.1584	-0.2400**	-0.5976***	-0.3203***	-0.1330	0.4968***	1.000	
Study area	-0.2060**	-0.0690	-0.3663***	-0.1579	-0.3187***	0.2865***	0.4174***	1.000

The correlation between students' preferences for taking exams and other factors is given in Tables 11-13. The tables show a significant positive correlation between students' online preferences and being a caregiver, as well as commuting for more than 2 h to the university. Additionally, there was a significant negative correlation with access to a study area. However, there was no significant correlation with access to a PC or laptop or access to Wi-Fi in this context (Table 11).

Similarly, there was a negative, significant correlation between students' on-campus preferences and caregiver status, commuting for more than 2 h to the university, and access to a study area. However, there was an insignificant correlation between students' on-campus preferences and access to a PC or laptop, as well as access to Wi-Fi (Table 12).

**Table 13.** Correlation students' hybrid synchronous exam preferences.

	Hybrid	Disability	Caring	Commute	Working	Access to PC	Wi-Fi	Study Area
Hybrid	1.000							
Disability	0.0000	1.000						
Caregiver	-0.0372	0.1758*	1.000					
Commute	-0.0104	0.2331**	0.1984*	1.000				
Working	-0.0349	-0.0116	0.1247	0.1673	1.000			
Access to	-0.0075	-0.2381**	-0.4317***	-0.1641	-0.1736*	1.000		
PC								
Wi-Fi	-0.0671	-0.2400**	-0.5976***	-0.3203***	-0.1330	0.4968***	1.000	
Study area	-0.0138	-0.0690	-0.3663***	-0.1579	-0.3187***	0.2865***	0.4174***	1.000

Tuble 11 Marapic registre regression on students of mine synthemotious exam preference.						
Online Exam	Coefficient	Std. Err.	Z	P > [Z]		
Caring1	1.093634	0.4972232	2.20	0.028		
Gender MFN	0.436196	0.4390959	0.99	0.321		
Disability1	-0.3301174	0.4824912	-0.68	0.494		
Cons	-1.411788	0.758128	-1.86	0.063		

Table 14. Multiple logistic regression on students' online synchronous exam preference.

Regarding the hybrid exam mode whereby students are given the option to sit the exam either online or on campus, there was an insignificant correlation with all the factors examined (Table 13).

Multiple logistic regression models were employed to assess the impact of the aforementioned factors on students' preferences for exam writing. While gender, caregiver status, and disability had significant effects on students' preferences for online teaching approaches, the following multiple logistic regression models demonstrate the effect of similar factors on students' preferences for exam mode. However, it is important to note that only caregiver status showed a significant effect, as observed in Tables 14–16.

logit (exam online) = -1.412 + 1.094.caregiver + 0.436.gender - 0.330.disability Table 14

logit (exam oncampus) = 0.509 - 1.227.caregiver -0.367.gender +0.179.disability Table 15

logit (exam hybrid) = -1.383 - 0.197.caregiver -0.031.gender +0.023.disability Table 16

The equations above demonstrate the probability of a student's preference for taking exams online synchronous, on-campus, or in a hybrid synchronous (option of both online and on campus) mode. The first equation shows that a student's preference for taking exams online increases by 1.093% when the probability of the student being a caregiver increases by 1% (Table 14). Similarly, a student's preference for taking exams on-campus decreases by 1.227% when the probability of the student being a caregiver increases by 1% (Table 15). However, the probability that students prefer taking exams online or on-campus is insignificantly affected by the gender of the student and their disability status (Tables 15 and 16). The same insignificant effects apply when testing all other factors on students' preferences for taking exams online, on-campus or hybrid (option of having both online and on campus, see Table 16).

While research studies on student exam performance have been conducted, such as those by Desouza and Fleming (2003) and Werhner (2010), our paper addresses a gap in the literature by examining students' exam preferences for online versus on-campus

Table 15. Multiple logistic regression on students' on-campus exam preference.

Coefficient	Std. Err.	Z	P > [Z]
-1.226692	0.6425648	-1.91	0.056
-0.3670611	0.4203305	-0.87	0.383
0.1794596	0.3865513	0.46	0.642
0.509193	0.7125112	0.71	0.475
	-1.226692 -0.3670611 0.1794596	-1.226692       0.6425648         -0.3670611       0.4203305         0.1794596       0.3865513	-1.226692       0.6425648       -1.91         -0.3670611       0.4203305       -0.87         0.1794596       0.3865513       0.46

Table 16. Multipl	e logistic regression o	n students' hybrid s	synchronous exam preference.

		, ,		
Hybrid Exam	Coefficient	Std. Err.	Z	P > [Z]
Caring1	-0.1969043	0.5570527	-0.35	0.724
Gender MFN	-0.0309386	0.5086833	-0.06	0.952
Disability1	0.0234383	0.4265452	0.05	0.956
_Cons	-1.382534	0.8587369	-1.61	0.107

settings. The qualitative responses to questions 21 and 22 have been analysed to discern preferences for on-campus or online exams based on thematic analysis.

# On campus, closed book invigilated exams

The three main themes that emerged for on-campus exam preference were 'concentration', 'technology', and 'easier to write', i.e. that accounting modules are predominantly calculation-based modules, and that writing would be easier than typing. Below are student quotes organised by response that summarise these themes.

#### Concentrate

On-site is better because of the environment and because it is much easier to concentrate. (RS\_01)

I am less likely to be distracted during an exam on campus, so this is preferable. (RS\_80)

# Technology

There is a possibility that I will lose my internet connection. Also, distractions from family members and neighbours.

(RS\_07)

There may be networking issues or problems with technology on the day of the online exams. It is much safer and more practical to have them onsite. (RS 13)

Easier to write

Prefer to write onsite on paper.

 $(RS_32)$ 

On campus, because some exams are easier to write than type, and my course has lots of calculations that we have to show in the exam. (RS 95)

# Online closed book invigilated exam

The two main themes that emerged for online exam preference were 'ease of access' and 'less stressful'. Below are student quotes organised by response that summarise these themes.



Ease of access

Online is easier, as you can do it anywhere at your own comfort. (RS 04)

Online: easier to do the exam without wasting money or time going to campus and doing the exam

(RS\_95)

Less stressful

It is less stressful when doing it from home, even with an online invigilator present.

Less pressure, feel less anxious, and be able to sit the exam without stressing.  $(RS_{77})$ 

# Both online and on campus

Nineteen percent of students opted for both online and on-campus exams, and the main theme that was mentioned was that both methods are 'effective'.

Online or onsite, both are best way to take exam.  $(RS_26)$ Both have their own importance.  $(RS_92)$ 

Our research has influenced the case university's teaching delivery strategy in two distinct ways for the 2022-2023 academic year. Firstly, by recognising that students prefer to take financial accounting modules on campus. Secondly, by providing students with pre-recorded lectures to watch before attending on-campus sessions. Moreover, the post-COVID-19 pandemic experience has facilitated quick adaptations to online synchronous delivery for both academics and students, enabling swift transitions to accommodate unforeseen incidents that might disrupt on-campus teaching, as exemplified by the transport strikes that occurred in the winter of the 2022–2023 academic year. Despite the existence of appropriate monitoring software for online exams, the university's exams remain as on campus closed book invigilated two to three hour exams. The subsequent section of this paper delves into the discussion.

# Discussion

We contribute to this discussion by examining two areas: students' preferences for teaching delivery and exam modes between online synchronous, hybrid synchronous, and oncampus teaching, given the post-COVID-19 pandemic experience. The research presented will have implications for all accounting academics by considering various modes of delivery and exams based on students' preferences. Our research investigates how students' attributes influence their choices for accounting education, teaching delivery, and exam mode preferences.

As per Sangster et al. (2020), the case university, like others in the U.K., had no experience dealing with natural disasters and lacked contingency plans for them. The abrupt shift from face-to-face to online learning caught many educators and students unprepared (Hofer et al., 2021). The post-COVID-19 pandemic lockdown has accelerated the use of technology in learning, providing academics with an opportunity for innovative approaches to education. It has allowed students to learn differently through ondemand access to recordings and challenged them to adapt to new learning environments (Pokhrel & Chhetri, 2021). The emergence of online education, despite its challenges, has led to innovative learning and assessment methods that will continue evolving in the coming decades. This research enhances knowledge and fills gaps in the literature related to accounting education in several ways, both quantitatively and qualitatively.

Our study examines students' experiences in traditional on-campus face-to-face teaching as well as online synchronous and hybrid synchronous teaching during and after COVID-19 pandemic lockdowns, primarily in undergraduate accounting and finance courses. The impact of the current paper highlights students' experiences with all three modes of teaching delivery and exam mode. Our findings indicate that there is no one-size-fits-all approach to teaching delivery modes.

Our qualitative findings underscore the significance of student voices and needs.

There is prevalent concern about the uncertainty of striking the right balance between online and on-campus teaching delivery components associated with hybrid synchronous delivery (Jones et al., 2007). Our qualitative data contributes to this discussion by sharing students' preferences for an ideal hybrid synchronous teaching delivery mode. The hybrid synchronous teaching delivery modes reveal that practical calculation-based modules, such as financial accounting, should be taught on campus while theoretical modules, such as business law, should be delivered online synchronously. According to our qualitative data, on-campus teaching enables students learning calculation-based modules to interact with tutors in person and seek assistance with their work. Additionally, students find it easier to collaborate on calculations with classmates during on-campus teaching. This finding aligns with Ahmadi et al.'s (2019) research, which suggests that studying quantitative modules online is more challenging than learning qualitative modules.

The qualitative data, as illustrated in Figure 3, along with corresponding themes, reveals common obstacles and barriers faced by students who prefer on-campus teaching delivery in a post-COVID-19 pandemic context over online teaching delivery. These obstacles include technological issues (Jaradat & Ajlouni, 2021; Song et al., 2004), feelings of isolation (Azzali et al., 2023; Bates & Khasawneh, 2007; Motteram & Forrester, 2005; Peytcheva-Forsyth & Aleksieva, 2021), and increased anxiety (Rapp-McCall & Anyikwa, 2016). This current paper adds further support to these studies by highlighting the significance of in-person community learning with peers and tutors, as well as the heightened concentration required by students in their studies - an obstacle frequently faced during online synchronous teaching delivery modes.

The paper contributes quantitatively by assessing the influence of student characteristics (year of study, gender, age, disability, caregiver, work commitments, commute, and accessibility) on students' preferences for teaching delivery modes. While no strong preference for hybrid synchronous teaching delivery mode is identified, the multiple logistic regression analysis reveals that the probability of students preferring an online synchronous teaching approach increases with a higher likelihood of the student being a caregiver or female. Furthermore, we observe that students preferring on-campus synchronous teaching decreases with a higher likelihood of the student being a caregiver. Caregivers may have busier lives, thus preferring the online synchronous delivery mode. This aligns with studies by Soffer et al. (2019), which reveal that busier students generally prefer online courses over on-campus ones. The most common qualitative reasons cited for preferring online synchronous teaching (as seen in Figure 3 and related themes) include access to recorded sessions for review (Aldamen et al., 2015) and convenience in terms of instant access, cost, and time savings (Nishimwe et al., 2022). The implication of our findings is that students find it beneficial to have access to lecture recordings for reference, aiding in the consolidation of their knowledge and revision. Therefore, we suggest that accounting academics consider adding lecture recordings as a supplementary pedagogical learning resource. This addition could take the form of either lecture captures (Baylis & Beynon, 2024) or brief lecture recordings outlining concepts to address issues highlighted by Doran (2021) regarding recordings and students' attendance.

Our investigation into students' exam preferences contributes to accounting education in several ways. It supplements the research conducted by Hancock et al. (2023), who explored the topic from the perspective of academics rather than students. It addresses a literature gap in previous research, which primarily focused on exam performance in on-campus settings compared to online exams (Aldahray, 2024; Desouza & Fleming, 2003; McCarthy et al., 2019; Werhner, 2010). Our study prompted students to express their preferences for exam modes based on their reflections on the post-COVID-19 pandemic experience. The quantitative findings of our research suggest that, while there is no overall significant result concerning exam mode preference, a notable preference for online exams emerges among caregivers. This preference increases as the probability of the student being a caregiver increases, with no significant influence from other factors.

Furthermore, our study's qualitative data reveals a preference for on-campus exams under three main themes: 'concentration', 'technological issues', and 'easier to write'. This suggests that accounting modules, being predominantly calculation-based, are better suited for written responses than typing. Conversely, the two primary themes that emerged for online exam preference were 'ease of access' and 'less stressful'. We note that some professional accountancy bodies offer flexibility by providing both oncampus and online synchronous modes of examination, thus enabling greater inclusivity to meet diverse student needs.

Finally, while our research examined students' preferences for teaching delivery and exam modes on the demand side, it is crucial to also consider practical factors on the supply side. These factors encompass academic preferences for delivery modes and resistance to new technologies (Beatson et al., 2021; Watty et al., 2016), as well as potential regulatory barriers that U.K. universities might face when providing online synchronous and hybrid synchronous classes, such as adhering to international student visa regulations. Implications of the cost associated with providing flexibility in teaching delivery and exam modes will also need to be considered.

#### **Conclusion**

The preferences of undergraduate accounting and finance students at a U.K. university regarding teaching delivery and exam modes were investigated in the aftermath of the

COVID-19 pandemic. This period was marked by an abrupt shift from 100% on-campus teaching to 100% online synchronous teaching, followed by a hybrid synchronous approach necessitated by social distancing measures. Furthermore, there was a transition from on-campus exams to online synchronous exams, which neither the students nor the academics had anticipated. Prior studies largely examined the benefits, drawbacks, and modes of delivery (Mann & Henneberry, 2012; Rahnert, 2022), as well as the effectiveness of various approaches to teaching delivery (González-Gómez et al., 2016; Lockman & Schirmer, 2020; Pei & Wu, 2019), without considering students' characteristics. Our study is significant as it provides empirical evidence on whether students' preferences for teaching delivery and exam modes align with individual student traits, such as year of study, gender, age, disability, caregiver status, work commitments, and commute time. As highlighted by Lux et al. (2023), students' engagement is crucial in determining their satisfaction.

Our findings suggest a preference for the online synchronous teaching delivery mode among female students and caregivers. Advocates of online delivery appreciate recorded class sessions (Aldamen et al., 2015) for their accessibility, cost, and time-saving benefits compared to commuting. This finding aligns with Mann and Henneberry (2012) discovery that online classes address barriers to on-campus learning, such as physical distance. Our qualitative data reveals the suitability of a hybrid synchronous delivery mode where theoretical modules, like business law, can be effectively taught online, while technical modules, like financial accounting, may benefit from face-to-face teaching. This suggests flexibility that can be applied across courses, where hybrid delivery encompasses a broader range of possibilities (Ahmadi et al., 2019; Dowling et al., 2003).

Our study also indicates that students who prefer on-campus delivery value direct engagement with academics and peers, experience less isolation (Almossa, 2021), and find it easier to concentrate in a face-to-face setting without worrying about technological issues (Jaradat & Ajlouni, 2021). This finding is consistent with the community of inquiry framework, which underscores the importance of social presence (Garrison et al., 2001). The implication of our research is to consider these factors when designing teaching delivery modes and to provide flexibility in delivery modes, including offering access to lecture recordings as an additional pedagogical resource. Implementing online or hybrid learning necessitates well-planned course content, an emphasis on interaction, and regular feedback to address uncertainties regarding the balance between online and face-to-face learning components (Jones et al., 2007).

Our study contributes by suggesting that hybrid learning entails ensuring that modules chosen for online delivery are suitable, and online delivery should be tailored to the nature of students in the course.

Previous research (Aldahray, 2024; Desouza & Fleming, 2003; McCarthy et al., 2019; Werhner, 2010) has primarily focused on students' performance in exams conducted on campus compared to online exams. The current paper significantly contributes to accounting education, as it asks entire undergraduate accounting and finance degree students to indicate their preferences for online synchronous versus on-campus exams based on post-COVID-19 pandemic experience. Additionally, this research examined how exam preferences vary among students with different traits. The findings on exam preference analysis for online versus on-campus modes indicate an insignificant difference across all student characteristics, except for students who are caregivers, who

prefer online exams. Proponents of online exams appreciate the familiar exam environment that reduces stress and anxiety. On the other hand, qualitative data from those in favour of on-campus exams emphasises the advantages of increased focus, the avoidance of technological glitches, and the practicality of handwriting for certain tasks involving calculations. The current paper also contributes by highlighting that some students prefer the option of having both exam modes made available.

Overall, considering the diverse student body and their varied needs, the current study seeks to contribute to the discussion by advocating for flexibility in teaching delivery and exam modes within accounting education.

Despite these contributions, the current research is not without limitations. The research was conducted at one higher education institution with a limited sample in each student characteristic category. The research is subjective as it involves data gathered from students' perceptions of teaching delivery and exam modes, which vary from student to student.

Additionally, it could have explored students' perceptions and their ethnicity. As new students are recruited, the post-pandemic lockdown with full online learning and exam experiences is becoming a distant memory. It will be challenging to repeat this study because the institution has chosen to resume offering all courses on campus.

The outcomes of this research may have potential implications not only for the international readership of the accounting education journal but also for academics, university senior management, professional accounting bodies, and government regulators of universities globally. The current paper provides insights into students' experiences during the pandemic and highlights the diversity of preferences regarding teaching delivery and examination modes.

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# **Appendix**

# Students' preferences for teaching and exam delivery modes in accounting education post-COVID-19 pandemic

Please confirm the below

I confirm that I have read, and I understand the participation information provided and that I understand my role as a participant, and I have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.



I agree to the use of anonymised quotes to be used in relevant future research and publication. I agree for the data/information collected from me to be used in relevant future research and publication.

I agree to take part in the above Research Project.

PART A – CHARACTERISTICS
Q1. Which course discipline are you studying: (Please answer via selecting appropriate)
☐ Accounting and Finance ☐ Business ☐ Economics
Q2. What year are you currently studying in: (Please answer via selecting appropriate)
☐ One ☐ Two ☐ Three
Q3. What is your gender? (Please answer via selecting appropriate)
☐ Male ☐ Female ☐ Prefer not to say
Q4. Which age bracket do you fall under? (Please answer via selecting appropriate)
18-24
Q5. Do you have a disability which would impact your learning?
☐ Yes ☐ No ☐ Prefer not to say
Q6. Do you have caring responsibilities which could impact time available for learning?
☐ Yes ☐ No ☐ Prefer not to say
Q7. How far do you commute to get to the university?
Half an hour or less□

Access to recorded session anytime  Any other (please state)
Q19. Having experienced teaching on campus, please state what it is you like about it. Meeting fellow students and socialising   Asking academics questions directly   Any other (please state)
Q20. If you had a choice, please state what your ideal teaching and learning method be?
PART C – EXAM MODE PREFERENCES
Q21. If you are sitting an exam, would you prefer:  Online 2 to 3 hours' time based with online invigilator monitoring □Yes □No  On campus 2 to 3 hours' time based with on campus invigilator monitoring □Yes □No
Q22. Please explain your reason for having exam online or onsite.

Thank you for taking the time to complete this questionnaire.