Pre Covid-19 Student Perceptions on Blended Learning and Flipped Classroom in Accountancy:

A case study from two emerging UK HEIs

Dr Nedal Sawan **Dr Krayyem Al-Hajaya**

Dr Rami Salem **Dr Mohammad Alshhadat**

Abstract

Purpose: This study explores the perceptions of accountancy students on the use of technology, blended learning and flipped classroom in two emerging UK Higher Education Institutions (HEIs).

Design/methodology/approach: the primary data for the study was collected using a questionnaire survey and descriptively analysed.

Findings: the findings revealed that there is some use of technology in terms of the Blackboard and PowerPoint presentations but blogs and wikis have very limited use. An aspect that does not seem to be integrated fully yet is the use of blended technology and a flipped classroom.

Originality: where Covid-19 brought about significant structural change in teaching and learning in the HE environment, this study represents a pre Covid-19 consideration of student perceptions on blended learning and flipped classroom. It thus has the potential to anchor future relevant studies that consider the post Covid-19 environment.

Practical implications: The study findings offer a picture of how technology, blended learning and the flipped classroom technique were utilised with accountancy students prior to the Covid-19 pandemic. This information is valuable for accounting educators and by extension to other aspects of business studies disciplines in providing a comparison between the pre-Covid scenario and the current one and thus enabling an evaluation of advancement in the application of these teaching strategies as a result of the pressure imposed by social distancing. Such intelligence will facilitate the identification of areas where it has been possible to enhance learning outcomes and point to opportunities for improved student experience.

Keywords: Student perceptions, Accountancy, Blended learning, Flipped classroom, Accounting education, Higher education

1. Introduction

Historically, accounting education has confronted several matters and challenges due to the rapidly changing regulatory, economic, technological, social and global environment (Mei and Symaco, 2020). Several studies have called for reform within Accounting Education (Albrecht and Sack, 2000; Mathews, 1990; McGee *et al.*, 2008), all of which express the necessity for accounting programmes to produce graduates who are active independent learners, possessing technical accounting skills with a wide range of generic skills and vital attributes to perform well in today's global business environment (Kavanagh and Drennan, 2008; Phan *et al.*, 2020). Accounting students within HE are expected to develop high-quality learning outcomes (QAA, 2015). Consequently, universities worldwide are encounter pressure from both students and employers (Bates and Kaye, 2014; Moore *et al.*, 2011; Howieson *et al.*, 2014) to enhance the opportunities for the development of learning and teaching strategies (Phan, 2020).

The constant advancements in technology have also impacted the delivery and assessment of the accounting curriculum, especially in a post Covid-19 environment and its accompanying disruptive condition, which largely deployed technological facilities in online and blended learning during the tough times of lockdown (Smith and Boscak, 2021).

Consequently, the majority of HEIs globally are now characterised by the use of blended learning approaches as quality enhancers of curriculum delivery (Chowdhury, 2020). In this approach, online teaching activities combine with traditional face-to-face class activities to offer a planned, integrated delivery (Le Roux and Nagel, 2018). It is believed that blended learning tools within the HE context promote more effectiveness, greater participation, and less cost than traditional classroom-only teaching (Chowdhury, 2020). One substantial advantage is that the classroom can be 'flipped' which Bergmann and Sams (2012) describe as a method that reverses educational traditions by delivering the instructional content via an online mode, thereby releasing students from the need to attend the institution for this element, but providing the space for what would have been performed as homework in a solitary environment, to be the subject of classroom activity where students can brainstorm, work in groups or engage in experimentation. These opportunities are developmental in preparing students to apply their theory to more practical, real life situations (Chowdhury, 2020).

Covid-19 has profoundly changed the environment in which we operate, and HE is no exception (Madani *et al.*, 2023). Therefore, aspects of students' teaching and learning approaches have been significantly changing, and this is especially so in the technological features such as the flipped classroom and blended learning, which have gone through significant development and change in the post Covid-19 landscape (Latorre-Cosculluela *et al.*, 2021). Hence, this study represents a consideration of accountancy student perceptions in a pre-Covid-19 environment to enable a comparison of the picture prior to and after lockdown. It thus provides a comparative perspective that will inform future work considering the impacts of the changes of Covid-19 on the teaching and learning environment.

In functional terms, the study aimed to obtain the pre Covid-19 perception of accountancy students in respect of their teaching and learning experiences with regards to technology, blended learning and flipped classroom. These perceptions were gained from students in two emerging UK-based business schools which vary in size and structure.

The remainder of this paper is organised as follows; Section 2 discusses the literature, Section 3 presents the research methodology, Section 4 considers the findings and provides analysis, and Section 5 ends the paper with a conclusion.

2. Literature Review

The use of technology has provided new opportunities to make HE more flexible and student-centred (Palmer and Devitt, 2008, 2014) and is seen by many as providing new ways to meet the challenges of the HE sector (OECD, 2012) but it needs to be harnessed to personalise student learning and promote deeper student engagement (Pring *et al.*, 2012). It has developed exponentially in education since its early incorporation through the use of PowerPoint, marking the only example of innovative classroom technology. Nevertheless, the principal research issue related to educational technology remains unchanged, the question still being: how can technology be integrated into accounting to improve the educational experience for teachers and students? On this issue, there is a lack of research despite the argument that Information and Communications Technology (ICT) enables learning to be personalised, thus giving students greater diversity in their learning and promoting more flexible, personalised learning spaces (Brown and Green, 2015; Keamy and Nicholas 2007). In their survey of first-year accounting students regarding their use of social media for academic purposes, Jan *et al.* (2016) found Facebook to be the primary social media outlet, followed by Instagram, Twitter, and Snapchat. Many students indicated that they used social media for academic purposes, although file-sharing (e.g., past examination questions and answers, study notes) was used for academic purposes. Gioiosa and Kinkela (2019), consistent with Brooks (2016), suggest that accounting students believe their use of technology in classroom teaching contributes to their successful completion of courses; this demonstrates the significance of incorporating technology into the accounting curriculum.

Advancements in learning technology create challenges for HEIs in the design and delivery of their programmes (Warren *et al.*, 2020), not least because today's students are more digitally literate than previous generations (Johnson et al., 2016), and have high expectations in this respect. Therefore, blended learning has the same significance as traditional face-to-face teaching and learning in achieving learning outcomes (Garrison and Vaughan, 2013; Means *et al.,* 2010). Furthermore, its personal and pedagogical benefits can promote greater student engagement, accommodate different learning styles, and enhance student outcomes (Bretag *et al.,* 2014). However, research has indicated that digital learning can encourage discrepancies in terms of online assessment and formative feedback (Johnson *et al.,* 2016; Dumford and Miller, 2018). That said, others (Arkoful and Abaidoo, 2015) argue that blended learning has the potential to overcome such issues due to the quantity of information that students can access online. In this context, Warren et al. (2020, p.98) found the blended approach to enhance academic self-efficacy and experience for non-maths specialised students, and argued that *"these benefits arise from the combination of allowing the individual mastery of technical skills in the private and stress-free environment provided by the online platform and access to social resources in the classroom setting"*.

One means of innovative teaching is the use of a flipped classroom which presents a means of active learning and that involves face-to-face interaction (Lento, 2016). In this scenario, instruction is moved from the traditional teacher-centred model to a learner-centred approach (Latorre-Cosculluela *et al.,* 2021), whereby new material is usually introduced outside the school environment, bringing the advantage that when students are in the classroom, time is available for a more in-depth exploration of that material and for more meaningful learning to occur (Chick *et al.,* 2020). The delivery of topics is multi-faceted, involving a range of teaching methods such as video instruction prepared by the teacher or even other parties, collaborative discussions online, online research, and the more traditional methods of reading from published texts, etc (Collado-Valero *et al.*, 2021).

Previously, there was no general agreement on the concept of a flipped classroom and there is limited evidence about its effectiveness (Bishop and Verlager, 2013; Sharples *et al.*, 2014, Lento, 2016). However, during the turbulent time of Covid-19, these technology-based approaches have assumed greater importance becoming priorities, and hence, the flipped classroom concept and its overall effectiveness have been widely evident (Campillo-Ferrer and Miralles-Martínez, 2021). In this vein, several studies (e.g. Chick *et al.*, 2020; Agarwal and Kaushik, 2020; Latorre-Cosculluela *et al.*, 2021; Smith and Boscak, 2021) have been conducted on the emergent mandates imposed by the social restrictions brought by the pandemic, and these research projects have addressed the applicability, opportunities and consequences of using the flipped classroom and blended learning approach in HE. And, in general, teachers and students have indicated that digital resources shared under the flipped classroom model lead to high levels of satisfaction, engagement, skills development, stimulation of students' active learning, critical thinking, knowledge sharing and interactivity via virtual spaces.

However, despite the advantages brought by deploying the flipped classroom approach, there do remain challenges that might limit the benefits of blended learning (Clark-Wilson *et al.*, 2020). Specifically, these relate mainly to the technological readiness of students and teachers which is dependent upon the accessibility of technological resources, internet connectivity, computer literacy and levels of technological anxiety and other psychological problems inherited in accepting and adapting to online remote learning (ElSaheli-Elhage, 2021; Cevikbas and Kaiser, 2020).

3. Research Design and Methodology

This study seeks to obtain the perceptions of students at two HEIs on their learning experience of technology, blended learning and the flipped classroom. Therefore, the descriptive approach is considered appropriate. The data for this study was collected through samples of quantitative biased-free data gathered via a questionnaire survey comprised of closed questions. Accountancy students at two emerging UK business schools, which differ in student size, student diversity, structures, and processes provided the data.

3.1 Sampling and data sources

The sample is comprised of Accountancy/Business with Accountancy students (across levels 4-6) who have been studying accounting over the past one to three years and who can provide a good overview of their learning experiences so far. This spread enables similarities, differences or developments of the students' experience throughout their university journey. All the responding Accounting (major) students were undertaking Accountancy as part of their three years (four years for sandwich) undergraduate programme, which entitles successful candidates to exemptions from certain professional body examinations (ACCA, CIMA, ICAEW).

For anonymity purposes, the two Business Schools are referred to as North and South, with South being older, larger and more developed. The choice of these institutions allows for the identification of similarities/differences in student perceptions of the learning experience across different levels, and for insights to be gained regarding the factors promoting positive/negative experience. The questionnaire was distributed by hand. A total of 81 responses was obtained from North, representing all levels and around 69% of all

accountancy students (Total 117). For South, a total of 78 responses was acquired across all levels, representing around 30% of all accountancy students (Total 260). The notable difference in response rates between the North and South was due merely to different personal accessibility conditions.

3.2 Questionnaire Design and Distribution

Students were asked to give their evaluation of their overall experience and their rating in terms of the importance of factors and elements influencing the quality of the learning experience regarding technology, blended learning and the flipped classroom. The survey questions were developed referring to previous studies (e.g. Arkoful and Abaidoo, 2015; Brooks, 2016; Lento, 2016; Dumford and Miller, 2018; Gioiosa and Kinkela, 2019). The survey included the following questions:

1. ***What technology have you been using?****:*

Online resources ( ) PowerPoint ( ) Videos ( ) Blogs, VLE ( ) Blackboard ( )

2. ***On a scale of 1 (very low) to 5 (very high),*** *how effective has the* ***use of technology*** *been as a teaching tool?*

1 Very low ( ) 2 Low ( ) 3 Neutral ( ) 4 High ( ) 5 Very high ( )

3. ***Have your lecturers engaged you with the use of blogs and wikis?*** *If yes rank your engagement with the lecture based on these factors* ***on a scale of 1-5. 1 not engaged to 5 highly engaged.***

1 Not engaged ( ) 2 Slightly engaged ( ) 3 Engaged ( ) 4 Fairly engaged ( ) 5 Highly engaged ( )

4. ***Accounting software learnt*** *– Do you agree that the accounting software packages you have learnt during your university studies are relevant to the job market/job?*

Strongly Disagree ( ) Disagree ( ) Neutral ( ) Agree ( ) Strongly Agree ( )

5. ***Flipped classroom and blended learning -*** *Rank if important or not* ***on a scale of 1-5***

Irrelevant ( ) 2 Not important ( ) 3 Neutral ( ) 4 Important ( ) 5 Highly important

The essence and objectives of the study were conveyed to the students both verbally and in written form as a brief introduction to the questionnaire. Students were reassured that their responses would not be used in any context other than for the purposes of this study. The questionnaire was distributed at the start of a lecture for each level of study during week 9 of the second semester in April 2019 along with an Information Sheet and Consent Form. Students were informed that participation was voluntary and that they could withdraw at any time if needed. There were no risks to the researcher as the research did not involve sensitive material. The universities were not exposed to any risks, and ethical approval from the two Universities' Research Committees was obtained before undertaking any fieldwork, as recommended by Ghaffari et al. (2008).

4. Analysis and Findings

4.1 Students Demographics

Three questions were asked in this section: the field of study, previous knowledge of accounting, student nationality.

At North, responses to the field of study question revealed: Year 1 - 19 Accountancy students, and 8 Business with Accounting students; Year 2 – 21 Accountancy students, and 6 Business with Accounting students; Year 3 - 16 Accountancy students, and 1 Business with Accounting students.

At South, all students across all levels were studying Accounting as a major as there is a separation between accounting and non-accounting students pursuing an accounting module. This is due to the larger number of students in that institution.

Students were then asked to rate on a five-point scale (ranging from (1) No knowledge to (5) High knowledge) whether they had any previous experience of accounting (Tables 1 and 2).

Table 1: North – Prior Knowledge of Accounting

	No Knowledge	Little Knowledge	Moderate Knowledge	Good Knowledge	High Knowledge
Year 1	13	7	3	4	0
Year 2	3	13	5	3	3
Year 3	9	8	6	4	0

Source: Authors' own creation/work

Table 2: South - Prior Knowledge of Accounting

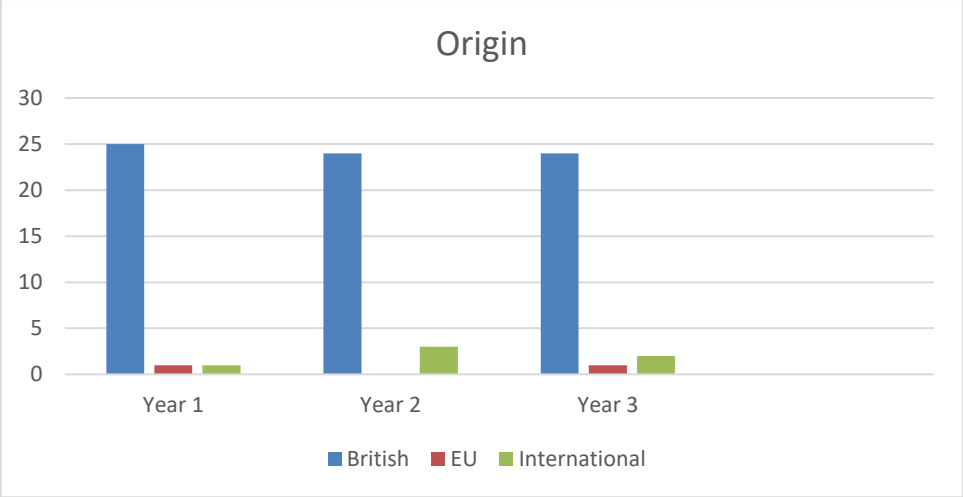
	No Knowledge	Little Knowledge	Moderate Knowledge	Good Knowledge	High Knowledge
Year 1	12	10	4	3	1
Year 2	5	8	10	3	3
Year 3	5	4	5	3	2

Source: Authors' own creation/work

Table 1 shows that around 65% of all students at North had very little or no prior knowledge, and Table 2 shows similar (but slightly less) results for South. Thus, the majority of students have only a little understanding of the subject before pursuing a degree in Accountancy. This is in line with the findings by Kavanagh and Drennan (2008) that only a limited number of secondary schools offer accounting courses that align with the professional syllabuses taught at Universities. However, sixth form colleges (Further Education establishments) do offer students the option to choose Accountancy. It can also be argued that due to the pressure faced by Universities in terms of recruitment (to enhance league rankings) they often accept students without the relevant qualifications for such a degree.

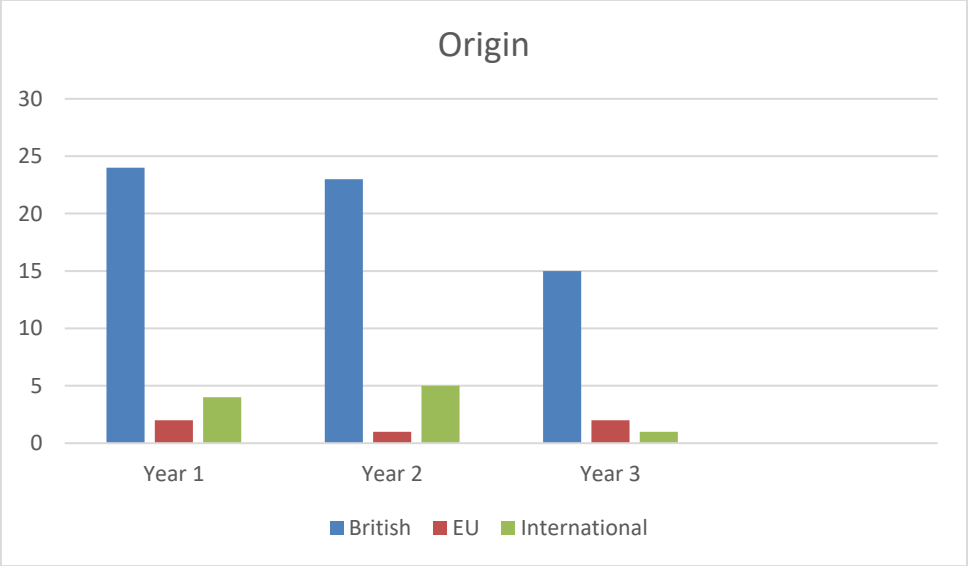
Finally, the last question within the first part of the questionnaire concerned the origin of students, which was largely British, as depicted in Figures 1 and 2. British students represent around 90% for North (73 out of 81 students), and nearly 80% for South (62 out of 78 students).

Figure 1: North - Student Origin



Source: Authors' own creation/work

Figure 2: South – Student Origin



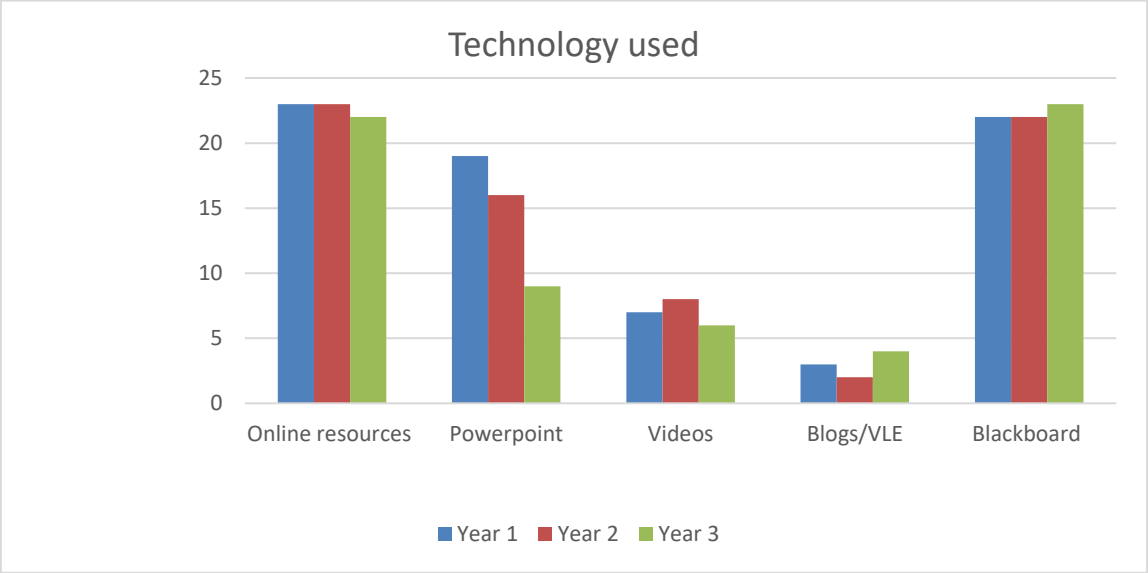
Source: Authors' own creation/work

4.2 Findings

The use of different aspects of technology within students' studies was examined as shown in Figures 3 and 4. At North, the main sources of Technology used were the Blackboard and online resources (both 84%) followed by PowerPoint predominantly used for year 1 students. At South, the main technology used was PowerPoint (88%) followed by online resources (87%) and the Blackboard (82%). The high use of PowerPoint at South can again be linked to the high numbers of students enrolled, and the need to use large lectures predominantly, in which the easiest method of teaching is PowerPoint presentations. It seems that in both cases the use of blogs/VLE is not widely seen, with 11% at North and 12% at South. Videos are used on occasion but given that Accountancy is very technical in nature, they are not expected to feature as highly as in other subjects. This confirms the views that technology needs to be harnessed and used in a way that engages students on a deeper level and

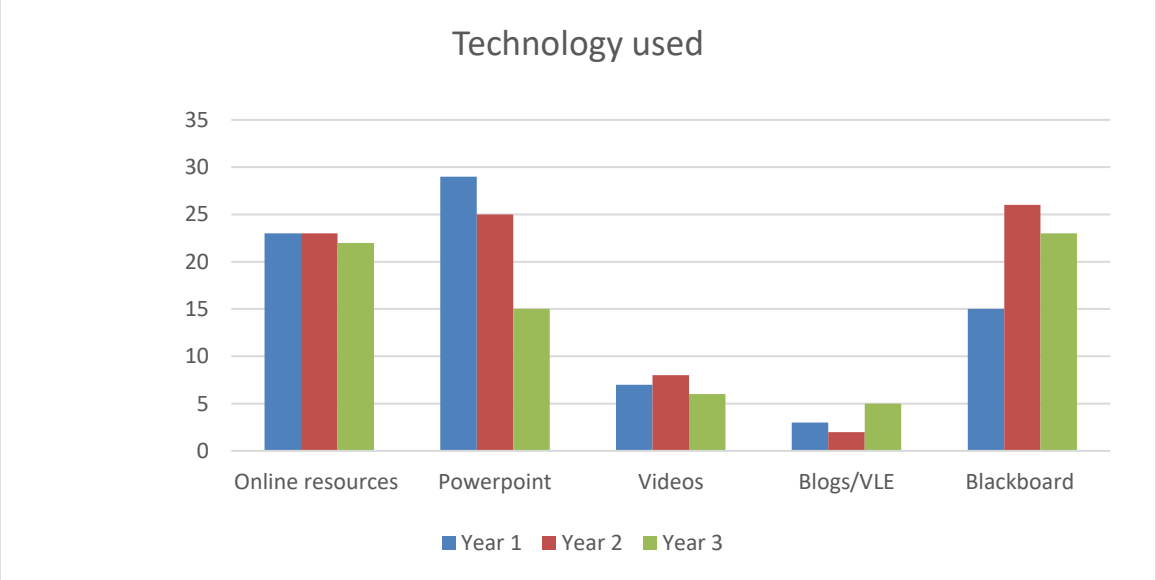
personalises learning for them rather than it being integrated simply for the sake of it (Johnson et al., 2016).

Figure 3: North - Use of Technology



Source: Authors' own creation/work

Figure 4: South - Use of Technology



Source: Authors' own creation/work

The next question revealed student perceptions of the usefulness of technology as a teaching tool with (1 being very low and 5 being very high) as seen in Tables 3 and 4.

Table 3: North - Perceptions of Usefulness of Technology in the Classroom

	Very low	Low	Neutral	High	Very high

Year 1	1	2	4	12	8
Year 2	0	1	3	6	17
Year 3	1	2	3	10	11

Source: Authors' own creation/work

Table 4: South: Perceptions of Usefulness of Technology in the Classroom

	Very low	Low	Neutral	High	Very high
Year 1	0	2	5	14	9
Year 2	0	1	3	8	17
Year 3	0	0	2	8	9

Source: Authors' own creation/work

As seen from both tables, the majority of students rate the usefulness of technology as high or very high (in terms of how it has been effectively used so far). This signifies the importance of technology to the learning experience, acknowledging the fast-changing and dynamic environment and the fact that technology is constantly affecting the students' daily lives and work scenarios.

Students were then asked whether they felt there was enough communication from lecturers through blogs and wikis (1 being not engaged and 5 the highly engaged). The results (Tables 5 and 6) confirm findings from Figures 3 and 4. Due to wikis and blogs not being used, the majority of students do not see their significance as high and rated them at either not engaged or slightly engaged. Blogs can be a useful way of exchanging messages or notes between students and lecturers or between students themselves; and can keep students abreast of any new/ongoing events in the news or any new articles which might be of use to them. Students tend to relate more to such platforms as they are more user friendly and innovative. Business schools might try to develop and incorporate such tools and platforms as they represent a different and innovative way of teaching and learning.

Table 5: North - Use of Blogs and Wikis

	Not Engaged	Slightly Engaged	Engaged	Fairly Engaged	Highly Engaged
Year 1	15	8	2	2	0
Year 2	11	4	4	5	3
Year 3	14	7	4	2	0

Source: Authors' own creation/work

Table 6: South - Use of Blogs and Wikis

	Not Engaged	Slightly	Engaged	Fairly	Highly

		Engaged		Engaged	Engaged
Year 1	9	14	4	2	1
Year 2	11	5	6	5	2
Year 3	7	5	4	3	0

Source: Authors' own creation/work

The next item examined the usefulness/relevance of the accounting software to which students were exposed to their future jobs. Findings in Tables 7 and 8 showed that at North the majority of students (62%) agreed that accounting software is important for the future whereas at South students were neutral about this (46%). It is also clear that as students' progress in their academic careers, they see the importance of the software more than in their lower years. The fact that both North and South run special modules for Accounting software in Years 1 and 2 contradicts suggestions that students tend to be given a one-sided curriculum, i.e., either academic or professional, and that they are in fact able to technical as well as generic skills as part of a well-rounded education (Milner and Hill, 2007).

Table 7: North - Usefulness of Accounting Software

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Year 1	3	5	9	6	4
Year 2	1	2	9	11	4
Year 3	3	3	5	10	6

Source: Authors' own creation/work

Table 8: South - Usefulness of Accounting Software

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Year 1	1	1	15	8	5
Year 2	0	5	13	8	3
Year 3	1	3	7	6	2

Source: Authors' own creation/work

Tables 9 and 10 reveal that the majority of results are neutral (at North also displaying minor importance), suggesting that students do not have a proper understanding of the flipped classroom concept, and that blended technology is not yet fully integrated. This confirms he findings by Bishop and Verlager (2013) and Lento (2016) that no consensus exists on the blended technology concept. Indeed, there is no evidence of its success so far, and it remains to be seen how this develops in the future.

Table 9: North - Ranking of Flipped Classroom and Blended Technology

	Irrelevant	Not Important	Neutral	Important	Very Important
Year 1	7	3	12	2	3
Year 2	5	2	6	12	2
Year 3	4	2	12	7	2

Source: Authors' own creation/work

Table 10: South - Ranking of Flipped Classroom and Blended Technology

	Irrelevant	Not Important	Neutral	Important	Very Important
Year 1	5	6	14	3	2
Year 2	7	2	16	3	2
Year 3	4	2	7	5	1

Source: Authors' own creation/work

5. Conclusion

This study provides insights into the perceptions of accountancy students in two emerging UK HEIs in respect of their learning experience regarding the use of technology, blended learning and the flipped classroom.

Findings showed that there is some use of technology in terms of the Blackboard and PowerPoint presentations but blogs and wikis have very limited use. Universities might investigate this in their efforts to move towards active learning and create a more student-centred learning and teaching approach. Additionally, the use of blended technology and flipped classroom seems not to be fully integrated yet. This finding is consistent with the outcomes obtained in studies undertaken before Covid-19, (e.g. Bishop and Verlager, 2013; Sharples *et al.*, 2014; Lento, 2016), that demonstrated general agreement with the strategy yet lacked practical evidence regarding its usefulness. Nevertheless, during the turbulence brought by Covid-19, the technology-based approaches have been largely utilised with the consequence that hence blended learning and flipped classroom has become more prevalent an indeed institutionalised in the delivery of various disciplines in HEIs.

That said, the whole matter requires further research as it is probable that there is no one-size-fits-all approach in respect of blended learning and flexible teaching and learning methods and different subject areas might profit from the use of varying models. Undoubtedly, the post Covid-19 educational culture has seen substantial change and development contingent upon the need to ensure delivery of the curriculum with a much greater reliance on technology, including the flipped classroom and blended learning model (Latorre-Cosculluela *et al.*, 2021) but in order to make comments about the value of such change it is necessary to compare the pre and post-Covid perceptions of the stakeholders, and this study has provided the pre-Covid perceptions of accountancy students. Hence, a comparative analysis that can inform future research on the impacts of the changes of Covid-19 on the teaching and learning environment is facilitated by the findings of the study.

In this respect, it must be documented that the benefits that are potentially to be enjoyed through the flipped classroom and blended learning approach remain dependent upon the presence of other factors which can bring challenges or smooth the learning process, and a deeper consideration of obstacles and facilitators is called for by future researchers. Specifically, the struggles are seen in the technological readiness displayed by both students and teachers, and this in turn is bound up with the degree of access they have to technological resources and, internet connectivity, with their individual computer literacy, technological anxiety and other psychological problems associated with their propensity to accept and adapt to online remote learning.

It is clear that post-pandemic, the changes in the economic, technological, social, regulatory and global environment have placed pressure upon the educational system to evolve, capitalising upon the intelligence obtained during imposed social distancing. Hence, the study reported offers valuable intelligence in enabling a comparison of the potential for advancement in the delivery of the curriculum when changes of the kind observed are implemented. Future research might use the findings of the current study as a historical anchor to identify the change in development in this area of research. Efforts in this direction will generate more insights into this constantly evolving theme helping educators, policy-makers, and the accounting profession to produce attractive programmes that employ more efficient learning and teaching approaches.

References

Agarwal S., Kaushik J.S., (2020), "Student's perception of online learning during COVID pandemic", *Indian J Pediatr*, Vol. 87, pp. 554–554.

Al Mallak, M.A., Tan, L.M. and Laswad, F. (2020), "Generic skills in accounting education in Saudi Arabia: students' perceptions", *Asian Review of Accounting*, Vol. 28 No. 3, pp. 395-421.

Arkorful, V. and Abaidoo, N. (2015), "The role of e-learning, the advantages and disadvantages of its adoption in higher education", *International Journal of Instructional Technology and Distance Learning*, Vol. 12 No. 1, pp. 29-42.

Bates, E. A., & Kaye, L. K. (2014), " 'I'd be expecting caviar in lectures': The impact of the new fee regime on undergraduate students' expectations of higher education", *Higher Education*, Vol. 67 No. 5, 655–673.

Bergmann, J. and Sams, A. (2012), Flip your Classroom: Reach Every Student in Every Class Every Day, International Society for Technology in Education, Washington, DC.

Bretag, T., Mahmud, S., Wallace, M., Walker, R., McGowan, U., East, J., Green, M., Partridge, L. and James, C., (2014), "Teach us how to do it properly; An Australian academic integrity student survey", *Studies in Higher Education*, Vol. 39 No. 7, pp.1150-1169.

Brooks, D.C. (2016), "ECAR Study of Undergraduate Students and Information Technology, 2016: Research Report", ECAR, Louisville, CO.

Brown, A.H. and Green, T.D., (2015), The essentials of instructional design: Connecting fundamental principles with process and practice, 2nd Ed., Routledge, London.

Campillo-Ferrer, J.M., Miralles-Martínez, P. (2021), "Effectiveness of the flipped classroom model on students' self-reported motivation and learning during the COVID-19 pandemic", *Humanities Social Sciences Communications*, Vol. 8, pp. 176-187.

Cevikbas M, Kaiser G (2020), "Flipped classroom as a reform-oriented approach to teaching mathematics", *ZDM Mathematics Education*, Vol 52 No. 7, pp. 1291–1305.

Clark-Wilson, A., Robutti, O., Thomas, M. (2020), "Teaching with digital technology" *ZDM Mathematics Education*, Vol 52 No. 7, pp. 1223–1242.

Chick R.C., Clifton G.T., Peace K.M., Propper B.W., Hale D.F., Alseidi A.A., Vreeland T.J., (2020), "Using technology to maintain the education of residents during the Covid19 pandemic", *Journal of Surgical Education*,Vol. 77 No. 4, pp.729-732

Chowdhury, F. (2020), "Blended learning: how to flip the classroom at HEIs in Bangladesh?", *Journal of Research in Innovative Teaching & Learning*, Vol. 13 No. 2, pp. 228-242.

Collado-Valero, J.; Rodríguez-Infante, G.; Romero-González, M.; Gamboa-Ternero, S.; Navarro-Soria, I.; Lavigne-Cerván, R. (2021), "Flipped Classroom: Active Methodology for Sustainable Learning in Higher Education during Social Distancing Due to COVID-19". *Sustainability*, Vol. 13 No. 10, pp. 5336.

Dumford, A. and Miller, A. (2018), "Online learning in higher education: exploring advantages and disadvantages for engagement", *Journal of Computing in Higher Education*, Vol. 30 No. 3, pp. 452-465.

ElSaheli-Elhage, R. (2021), "Access to students and parents and levels of preparedness of educators during the COVID-19 emergency transition to e-learning", *International Journal on Studies in Education*, Vol. 3 No. 2, pp. 61-69.

Garrison, D.R. and Vaughan, N.D., (2013), "Institutional change and leadership associated with blended learning innovation: Two case studies", *The internet and higher education*, Vol. 18, pp. 24-28.

Ghaffari, F., Kyriacou, O., & Brennan, R. (2008), "Exploring the implementation of ethics in U.K. Accounting programs", Issues *in Accounting Education*, Vol. 23 No. 2, pp. 183–198.

Gioiosa, M.E. and Kinkela, K. (2019), "Classroom exercises with technology and communication skills: students' perceptions", *Journal of International Education in Business*, Vol. 12 No. 1, pp. 2-13.

Howieson, B., Hancock, P., Segal, N., Kavanagh, M., Tempone, I., & Kent, J. (2014), "Who should teach what? Australian perceptions of the roles of universities and practice in the education of professional accountants", *Journal of Accounting Education*, Vol. 32 No. 3, pp. 259–275.

Jan, S.R., Ullah, F., Ali, H. and Khan, F., (2016), "Enhanced and effective learning through mobile learning an insight into students perception of mobile learning at university level", *International Journal of Scientific Research in Science, Engineering and Technology (IJSRSET)*, pp.2395-1990.

Kavanagh, M. H., & Drennan, L. (2008), "What skills and attributes does an accounting graduate need? Evidence from student perceptions and employer expectations", *Accounting and Finance*, Vol. 48, pp. 279–300.

Keamy, K.R. and Nicholas, H., (2007), "Personalised learning: Can governments guarantee diversity for individuals? ", *International Journal of Diversity in Organisations, Communities & Nations*, Vol. 7 No. 1, pp. 343-361.

Latorre-Cosculluela, C., Suárez, C., Quiroga, S., Sobradiel-Sierra, N., Lozano-Blasco, R. and Rodríguez-Martínez, A. (2021), "Flipped Classroom model before and during COVID-19: using technology to develop 21st century skills", *Interactive Technology and Smart Education*, Vol. 18 No. 2, pp. 189-204.

Le Roux, l. and Nagel, L. (2018), "Seeking the best blend for deep learning in a flipped classroom: viewing students' perception through the community of inquiry lens", International Journal of Educational Technology in Higher Education, Vol. 15 No. 3, pp. 1-28.

Lento, C. (2016), "Promoting active learning in introductory financial accounting through the flipped classroom design", *Journal of Applied Research in Higher Education*, Vol. 8 No. 1, pp. 72-87.

Madani, H., Adhikari, A. and Hodgdon, C. (2023), "Understanding faculty acceptance of online teaching during the COVID-19 pandemic: a Saudi Arabian case study", *Journal of International Education in Business*, Vol. 16 No. 2, pp. 152-166.

Mei, W. and Symaco, L., (2020), "University-wide entrepreneurship education in China's higher education institutions: issues and challenges", *Studies in Higher Education*, Vol. 3 No. 2, pp. 1-17.

Moore, J., McNeil, J., & Halliday, S. (2011), "Worth the price? Some findings from young people on attitudes to increases in university tuition fees", *Widening Participation and Lifelong Learning*, Vol. 13 No. 1, pp. 57–70.

Phan, D., Yapa, P. and Nguyen, H.T. (2020), "Accounting graduate readiness for work: a case study of South East Asia", *Education and Training*, Vol. 63 No. 3, pp. 392-416.

Smith E., and Boscak A. (2021), "A virtual emergency: learning lessons from remote medical student education during the COVID-19 pandemic", *Emergency Radiology*, Vol. 28 No. (3), pp. 445–452.

Warren, L., Reilly, D., Herdan, A. and Lin, Y. (2020), "Self-efficacy, performance and the role of blended learning", *Journal of Applied Research in Higher Education*, Vol. 13 No. 1, pp. 98-111.