INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT

OPEN ACCESS JOURNAL

Vol 13, Issue 3, (2024) E-ISSN: 2226-6348

Exploring the Impact of Digital Technology Integration on Undergraduate Accounting Performance: An Evaluation and Analysis

Mariana Jusop, Norhayati Abdullah, Shahida Shaharuddin, Noor Fadzlina Mohd Fadhil

Faculty of Business and Management, Universiti Sultan Zainal Abidin Malaysia

To Link this Article: http://dx.doi.org/10.6007/IJARPED/v13-i3/22767 DOI:10.6007/IJARPED/v13-i3/22767

Published Online: 03 September 2024

Abstract

Since mobile devices and applications have always been a part of daily life, they are incredibly beneficial for students to use them even in the classroom. The availability and affordability of new apps and mobile devices has made students' academic and social life become easier thus inducing educators to utilize these devices to promote teaching and learning. Digital platforms provide flexibility in learning schedules and allow students to learn at their own pace. Therefore, this study examines how digital technology is incorporated into educational settings, with a specific focus on its impact on the academic performance of undergraduate accounting students. It aims to uncover the multifaceted aspects in which technological interventions influence learning outcomes by exploring how digital tools intersect with accounting education. Specifically, the study evaluates the effectiveness of a digital innovation that we called the Interactive Accounting Discourse Module (INTERACC) in undergraduate accounting courses. This module facilitates access to learning materials such as e-notes, discussions, and interactive assessments through digital devices. Data were collected via surveys with 83 third-year accounting students to gather their feedback on the effectiveness of the teaching and learning process, particularly in reading-intensive courses. Additionally, students' performance was analyzed by comparing their course achievements before and after the intervention. The results demonstrate that INTERACC enhanced course learning outcomes, and students expressed positive attitudes towards its ease of use, utility, and accessibility. Consequently, this study aims to contribute to the development of an interactive platform for accounting students that may enhance learning experiences by making them both enjoyable and informative.

Keywords: Interactive Teaching Platform, Teaching Innovations, Accounting, Usefulness, Ease of use, Accessibility.

Introduction

The integration of digital technology in accounting education represents a transformative shift that enhances both the teaching and learning experiences within the accounting field. Digital technology in accounting education encompasses a broad spectrum of tools and

resources designed to improve learning outcomes and streamline educational processes. The examples of the innovations range from interactive learning modules, software and virtual simulations to cloud-based platforms for collaborative projects and real-time data analysis. Among the advantages of leveraging such technologies, educators can create dynamic and immersive learning environments that mirror real-world scenarios encountered in accounting practice and able to enhance engagement and interactivity in each course taught. Traditional methods of teaching may sometimes struggle to maintain student interest and relevance in an increasingly digital world.

Digital tools normally offer interactive features, such as gamification elements and multimedia resources. This can make complex accounting concepts more accessible and understandable. The use of online meetings and materials helps accounting students contribute a much positive view about the course and a better perception about the instructor's teaching effectiveness for the course (Wen and Wang, 2022). For example, interactive simulations allow students to practice financial analysis or audit procedures in a risk-free environment, bridging the gap between theoretical knowledge and practical application. Moreover, digital technology facilitates personalized learning experiences tailored to individual student needs and learning styles. Adaptive learning platforms can assess students' progress in real-time and provide customized feedback and additional resources accordingly.

Hence, the innovation that we created for this study made use of digital tools such as the combination of Canva, Powtoon, Slideshare, Kahoot!, Padlet, Google Form, and Google Jamboard to build a module with attractive materials, discussion channels, and assessment for students. The module became a teaching innovation that attempts to solve some of the issues related to the teaching and learning process for accounting students. Most of the time, traditional teaching methods make the subject feel monotonous, with lecture notes and textbooks occupying most of the class time. Although there are numerous free videos and interactive materials available to illustrate accounting topics and enhance students' comprehension, they are often disorganized and scattered. Therefore, the innovation named INTERACC, an acronym for an Interactive Accounting Discourse Module for teaching and learning is introduced in this study. INTERACC is designed to provide topics with the combination of various sources of related e-notes, interactive discussions on current issues, case studies, illustrations, videos, and online assessments, all in one platform. These INTERACC materials were temporarily hosted on Google Site for convenience students' access before the development of its official website.

After the fourteen-week intervention, the use of INTERACC is aimed to assess its impact and evaluate its effectiveness in accounting teaching and learning process. The results of the study are intended to be used by educators to design other innovative learning scenarios and materials and use them in other accounting courses.

Literature Review

Academic institutions have undergone several significant changes due to societal and technological tendencies toward digitalization. The digital revolution encouraged unrestricted access to information on a global scale where today's classrooms are equipped

with a wealth of information and communication technology (ICT) tools, and almost all instructors have made significant progress in integrating digital technology to improve students' access to information and cooperative learning opportunities. The integration of digital devices in education makes it easier to improve the atmosphere for teaching and learning (Qureshi, et al., 2021). Recent literature also emphasized the urgent needs for enhancement in educational curriculum levels and skills of teachers in technology application especially after COVID-19 pandemic (Nurhas, et al., 2022; Al-Hattami, 2023; O.Viberg, Gronlund and Andersson, 2023).

Disruptive technological innovations, such as smart devices, the Internet of Things (IoT), artificial intelligence (AI), augmented reality (AR) and virtual reality (VR), blockchain, and software applications have opened up new opportunities for advancing teaching and learning in all segments of education. Whether it is in physical or online learning, be it in primary, secondary or tertiary education, the need for a creative teaching and learning method must be applied by the educators. Utilizing digital technology in the study approaches may increase students' retention at class and improve their grade for the subject. For example, previous studies evidenced the use of flipped-classroom as an innovative teaching approach (Sevillano-Monje, Martín-Gutiérrez, and Hervás-Gómez, 2022; Campillo-Ferrer and Miralles-Martinez, 2021) had proved that it enables students to easily understand their progression in the learning and improve their motivation to manage cognitive knowledge more effectively. The claims aligned with the research conducted by Olivan Blazquez et al. (2019), which confirmed that students who adopted an active flipped classroom-based learning methodology demonstrated improved academic performance and a decreased perception of content difficulty as compared to those who learned using a traditional method. Therefore, it is crucial for educators to embrace alternative approaches of teaching so that the competence level of students can be improved.

Besides flipped classroom, there are many other active methodologies that can be applied in teaching and learning process such as service learning, cooperative learning, blended learning, case study, and project-based learning. These types of teaching and learning approach have shifted traditional ways of knowledge transfer from teacher-centered to student-centered learning (Albashtawi and Al Bataineh, 2020; Sevillano-Monje, et al., 2022). The aims are to create a dynamic and engaging learning environment, encourage critical thinking, and prepare students for the challenges of the modern world. This innovative teaching often incorporates technology, utilizing tools such as multimedia presentations, interactive simulations, online module or resources, and educational apps to enhance the learning experience (Qureshi, et al., 2021; Backfish, et al., 2021; Amhag, Hellstrom, and Stigmar, 2019). According to Albashtawi and Al Bataineh (2020), it is unavoidable to live in the digital age without encountering emerging online platforms for teaching and learning. Because of this, learning how to incorporate new technology functions in the classroom has become essential as all higher education institutions attempt to use new online platforms.

Since mobile devices and applications have always been a part of daily life, they are incredibly beneficial for students to use them even in the classroom. The availability and affordability of new apps and mobile devices has made students' academic and social life become easier thus urged educators to utilize these devices to promote teaching and learning. Among the benefits of using mobile devices is enhancing traditional learning by presenting the lessons more interactively and effectively (Stathopoulou, et al., 2019). For instance, the combination of the use of Google Classroom, Google Form, Google Jamboard, Quizizz, Quizlet, Kahoot!,

Socrative, etc. using tablets, smartphone or other computer technologies in the classroom has promoted quality in teaching and learning process (e.g. Backfisch, et al., 2021; Haleem, et al., 2022; Pratiwi & Waluyo, 2023). Besides, the usability, flexibility, and mobility features offered by these technologies are really fit to today's student lifestyle (Karabatzaki, et al., 2018; Albashtawi and Al Bataineh, 2020; Al-Hattami, 2023). Whatever approach is used, integrating technologies into teaching is crucial to support students' learning process and enable them to participate in a digitalized society.

Generally, digital technology has revolutionized education in numerous ways, transforming the traditional classroom model into a more dynamic, interactive, and accessible learning environment. It has enabled the creation of online learning platforms, offering a wide range of courses and resources accessible to learners. These platforms provide flexibility in learning schedules and allow students to learn at their own pace. Besides, traditional textbooks are increasingly being replaced by digital versions, which offer multimedia features such as videos, interactive quizzes, and links to additional resources. Digital resources also enable instant updates and corrections, ensuring that students have access to the most current information. Moreover, students in this digital era prefer online collaboration that allow for real-time document sharing, collaborative editing, and video conferencing, enabling seamless communication and teamwork regardless of their physical location.

Methodology

This study was conducted at the Faculty of Business and Management, Universiti Sultan Zainal Abidin, Gong Badak Campus. The sample for this study were 82 undergraduate accounting students who enrolled in ACB32003 Financial Reporting Theory (FRT) course in Semester II 2022/2023. This study was carried out for the duration of one year. The first step of the research involved the analysis of students' needs for the course and the development of the INTERACC module. The second step was the implementation of the teaching and learning process using INTERACC for the 14 weeks of study followed by the evaluation and observation process by the instructor. By surveying students on their use of INTERACC, we can draw several conclusions about the use of INTERACC in FRT course.

Overall, the research methodology is established in five phases based on ADDIE Model. The model, which was created by the Centre for Educational Technology at Florida State University and developed by Dick and Cary in 1978, involves five development phases i.e. analysis, design, development, implementation, and evaluation. The data collection was treated quantitatively. A set of questionnaires was prepared to survey the students' feedback of using INTERACC in teaching and learning process. To evaluate the practicality of the use of INTERACC in teaching and learning, we observed students' response, take note on the latest updates and knowledge, and improvised the materials provided. The evaluation is done through the analysis of the questionnaire which was distributed in the end of the semester after the intervention is completed. The questionnaire consists of four domains which measure the usefulness, ease of use, accessibility, and satisfaction from the use of INTERACC. To assess the effectiveness of INTERACC, the students' final semester results were gathered and compared to the results of the same course prior to the implementation of the intervention. We delved into the analysis of two key course learning outcomes (CLO) within the FRT subjects, drawing comparisons with the corresponding CLOs from the preceding semester. The surveys were analyzed using the SPSS.

During the analysis phase, we identified students' needs of the online topic especially on the course content. Prior semester's learning outcomes were also analyzed to recognize any weakness in the topics. Then, the learning activities and assessments tailored to the content were designed. Subsequently, all the collection of materials was compiled to identify the most suitable digital tools for implementation. In the development phase, we developed course material, discussions, assessment, and references using some combination of interactive digital tools such as Canva, Powtoon, Slideshare, Kahoot, Padlet, and Google Jamboard. Throughout the semester, we observed the use of the material in the INTERACC and took notice of their feedback.

We made improvements to the INTERACC from time to time so that it could increase the students' understanding and interest. Improvements were made either to the contents, assessment methods, or to the platform that we chose to park the INTERACC, i.e. Google Sites. When the semester ended, we distributed the survey questionnaire and evaluated the practicality of the module. We also analyzed the final exam results for the FRT course, examined the course learning outcomes (CLO) and compared the results to the preceding semester.

Results

The INTERACC platform integrates a variety of educational resources including notes, illustrations, and assessments within the FRT course structure, utilizing video presentations, online quizzes, and reference materials. It is designed specifically to enhance the learning experience for undergraduate accounting students by promoting interactive and engaging study methods. This study was conducted over a fourteen-week period to investigate the impact of implementing INTERACC in teaching and learning FRT, focusing on assessing its effectiveness through two primary objectives:

As for the first objective (to evaluate how INTERACC enhances student engagement and enjoyment in the learning process), this study quantitatively investigated the attitudes of undergraduate accounting students toward INTERACC by analyzing their responses to 15 items in 3 domains (usefulness, ease of use, and accessibility) after the implementation of INTERACC. Descriptive statistics (means and standard deviations) of the students' feedback on their attitudes toward using the INTERACC questionnaire domains were calculated to directly address this. The usefulness domain was ranked first based on the mean value of 4.25 out of 5 scores. The standard deviations for usefulness are relatively low (0.75), suggesting that there was generally a high level of agreement among students regarding the usefulness of INTERACC. The accessibility domain has the mean value of 4.14 and the standard deviation of ± 0.87 was ranked as the second. Whilst the mean score of ease of use 4.13 and standard deviation ± 0.82 was ranked as the least. These results indicate that the overall mean score of the students' responses was 4.17 ± 0.81.

Table 1
Descriptive Statistics of Students' Responses on their Attitudes in terms of Items in Usefulness, Ease of Use, and Accessibility Domains

No.	Dependent Variables	*Items*	Mean	Std. Dev
1	USEFULNESS	*The concept of INTERACC should be used in other courses.*	4.33	.75
		I find INTERACC useful.	4.28	.71
		I find INTERACC helpful.	4.27	.72
		I look forward to using this method of learning in other classes.	4.27	.74
		Activities provided in INTERACC are helpful to increase my understanding.	4.22	.75
		I like doing revisions through INTERACC.	4.12	.84
2	ACCESSIBILITY	*I am happy because I can use INTERACC anytime anywhere.*	4.35	.69
		I feel comfortable because INTERACC can be easily accessed through my smartphone or laptop.	4.33	.85
		Using INTERACC in all courses that have assignment is better than paper-based assignments.	4.22	.82
		I respond as quickly as possible to each assignment or question in INTERACC.	3.98	.85
		INTERACC application is available on my smartphone.	3.80	1.13
3	EASE OF USE	*Using INTERACC application or platform is easy.*	4.26	.75
		I think instructions of the activities are clear.	4.23	.71
		I feel positive when submitting my assignment through INTERACC.	4.12	.79
		I feel comfortable using online materials to make revision rather than traditional textbook.	3.91	.1.03

Table 1 indicated overall attitudes of the students were positive toward the use of INTERACC in terms of its usefulness, ease of use, and accessibility. Most of the students rated the usefulness and effectiveness of INTERACC quite high, with mean scores ranging from 4.12 to 4.33 out of 5 across different items. Specifically, they strongly agreed that INTERACC was helpful for revisions, understanding, and should be implemented in other courses. Besides, students expressed their agreement related to ease of use, clarity of instructions, and positive feelings about submitting assignments. However, there is slightly less agreement regarding the preference for using online materials over traditional textbooks for revision, with opinions being more varied on this aspect. Also, the availability of the application on students' smartphones are quite limited which made their speed of response to assignments or questions through the platform was little bit slow. But overall results suggest that students generally perceived INTERACC as accessible, convenient, and preferable to paper-based assignments.

In addition to these domains, the students were also asked about their satisfaction after using INTERACC. Majority agreed that it is a good teaching methodology based on the mean value

(4.38±0.71), promotes an independent learning experience (4.32 ± 0.68) and new knowledge (4.29 ±0.69), helps them better understand the concept (4.28 ±0.71), and favored deep learning (4.11 ±0.75) dan critical thinking (4.16 ±0.71). These results suggest that INTERACC is perceived positively by the respondents and is seen as a valuable tool for learning and revision, with potential for broader application in educational settings.

To assess the effectiveness of INTERACC in improving the overall understanding and retention of FRT concepts among students, we examined the performance of FRT students by analyzing the pre-and post-intervention results in the subject. The results were presented according to the CLO as shown in Table 2.

Table 2
Means and Standard Deviations of the Students' Pre-and Post-Intervention Examination Results According to Course Learning Outcomes

CLO	Upon completion of this course, students should be able to:	Pre-Intervention		Post-Intervention	
		Mean	Standard Deviation	Mean	Standard Deviation
1	Explain the system and principles in the professionalization of accountants and history of accounting in Malaysia.	100	0	100	0
2	Apply the concepts of international dan Malaysian standard settings for business corporations.	86.2	8.18	89.4	5.29

Table 2 shows the students' overall scores of the pre-and-post intervention performance. The results revealed an improvement to the CLO 2 from an average mean of 86.2 before the introduction of INTERACC to 89.4 percent after its implementation in the classroom. Meanwhile, the excellent achievement for the CLO 1 is maintained. This indicates that the teaching and learning intervention using INTERACC has a positive impact on students' performance.

Discussion

The results of the first research question showed that students' attitudes toward INTERACC in terms of its usefulness, ease of use, and accessibility were positive. According to the results, the usefulness feature of INTERACC was ranked first, accessibility was ranked second, and ease of use was ranked as third by the students. These results came in tandem with Stathopoulou, et al. (2019), Albashtawi and Al Bataineh (2020), Campillo-Ferrer and Miralles-Martinez (2021), Haleem, et al. (2022), O.Viberg, Gronlund and Andersson (2023), and Pratiwi and Waluyo (2023) who affirmed the overall positive attitudes of students toward the use of technology or digital tools in teaching and learning.

For example, Stathopoulou, et al. (2019) tested the effectiveness of use of mobile apps in encouraging social behavior of autism students. An Android tablet with interactive social scenarios was given for each participant and the progress of their behavior were assessed during the 10 months of the intervention. According to their results, the study posited that digital social stories through mobile apps can help social skills acquisition of autism students to overcome social difficulties. Whilst, recent study by Pratiwi and Waluyo (2023) revealed

digital classes incorporating digital technology such as Google Form, Quizizz, Quizlet, Kahoot!, and Socrative were more effective than traditional classes in terms of students' learning outcomes. They thus verified how digital technology might aid in the development of an efficient teaching strategy that encourages self-directed learning.

Other studies utilized Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), or Innovation Diffusion Theory (IDT) to investigate the acceptance of educational technology by students and other stakeholders. For instance, Albashtawi and Al Bataineh (2020), Al-Hattami (2023), and Peng, Xu and Xu (2023) described perceived usefulness, perceived ease of use, accessibility, attitude, curiosity, and self-efficacy play pivotal roles in shaping the acceptance of digital technology in educational settings. These findings are consistence with the INTERACC features that have encouraged students to using it. The attributes of digital tools have a profound impact on users' attitudes, thereby catalyzing the inclination towards embracing INTERACC. Moreover, the students are from the Z generation, i.e. the first groups to grow up with the formation of social media and digital technologies. Szymkowiak, et al. (2021) investigated how technology and the Internet affect the acquisition of knowledge by Generation Z. Based on their results, the respondents being more partial towards learning via mobile applications and video content over the traditional form. It also discovered that the students tended to emulate their teachers who integrated modern technologies into their curriculum and used it outside classroom hours for learning.

Therefore, after completing the self-help module on FRT course using the INTERACC, students will be more likely to discuss the main principles of formulation and verification of accounting theory confidently.

Conclusion

Since the COVID-19 pandemic, the use of digital tools has rapidly increased, and they will continue to outpace more traditional teaching methods. The pandemic acted as a catalyst for the rapid integration of digital technology in education, transforming how teaching and learning occur and paving the way for continued innovation in the field. Therefore, digital technologies offer new opportunities to enhance teaching and learning experiences. With a wide range of online resources available, educators can enhance their teaching methods, create personalized digital learning materials, and offer students immersive learning experiences tailored to their needs and preferences.

The integration of digital technology in education not only aids students in preparing for lifelong learning but also offers them a dynamic virtual environment where they can access digital knowledge tailored to their individual learning preferences. With the assistance of digital content production tools, which personalize the teaching and learning experience, students have the flexibility to study at their own pace and styles. Therefore, this study posited that students were able to clearly explain the system and concepts pertaining to the professionalization of accountants as well as the history of accounting in Malaysia after finishing the self-help module on the FRT course utilizing the INTERACC. When the students graduate and begin working in the sector, they should also be able to apply the concepts of both Malaysian and international standard settings for business corporations. It is also intended that this intervention, once successfully implemented in the FRT course, will be extended to other accounting courses.

We suggest for educators seeking to integrate digital tools into syllabus or courses, it's crucial to delve deep into understanding how these tools operate, meticulously craft learning scenarios/materials, and professionally execute them in the classroom. The essence lies not only in providing students with technology, but also to work together with them to foster shared, differentiated and situated learning approaches.

Acknowledgement
This research was funded by the "Scholarship of Teaching and Learning (SOTL) Project" of Universiti Sultan Zainal Abidin. Grant number UniSZA/SOTL/2022/10 – RK030. We would like to thank Centre for Management of Academic Excellence & Innovation (COMAE-i) for facilitating the completion of the research progress.

Corresponding Author
Mariana Jusop,
Faculty of Business and Management, Universiti Sultan Zainal Abidin, 21300 Kuala Nerus, Terengganu, Malaysia
Email: marianajusop@unisza.edu.my

References

Ako Oben, J., Ifunanya Nwosu, L., & Mahlaule, C. (2022). The Abilities of First-Year Trainee Accountants to Apply Knowledge Acquired Through Accounting Academic Educational Program in Accounting Practice. Development of an Anxiety Scale for Chemistry Journal for Educators, Teachers and Trainers, Vol. 13(1). 203– 215. https://10.47750/jett.2022.13.01.023

Albashtawi, A., & Al Bataineh, K. (2020). The effectiveness of google classroom among EFL students in Jordan: An innovative teaching and learning online platform. *International Journal of Emerging Technologies in Learning (iJET)*, 15(11), 78-88. https://doi.org/10.3991/ijet.v15i11.12865

Al-Hunaiyyan, A., Al-Sharhan, S., & AlHajri, R. (2020). Prospects and challenges of learning management systems in higher education. *International Journal of Advanced Computer Science and Applications*, 11(12), 73–79. https://doi.org/10.14569/IJACSA.2020.0111209

Amhag, L., Hellström, L., & Stigmar, M. (2019). Teacher educators' use of digital tools and needs for digital competence in higher education. *Journal of Digital Learning in Teacher Education*, 35(4), 203-220. https://doi.org/10.1080/21532974.2019.1646169

Amrullah, A., Lail, H., & Sumayani, S. R. (2023). The Efl students' perspectives on the usefulness of ict-based learning . *Journal of Language and Pragmatics Studies*, 2(1), 1–10. https://doi.org/10.58881/jlps.v2i1.6

Backfisch, I., Lachner, A., Stürmer, K., & Scheiter, K. (2021). Variability of teachers' technology integration in the classroom: A matter of utility!. *Computers & Education*, 166, 104159. https://doi.org/10.1016/j.compedu.2021.104159

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 and Social Sciences Communications*, 8(1), 1-9. https://doi.org/10.1057/s41599-021-00860-4

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275-285. https://doi.org/10.1016/j.susoc.2022.05.004

Karabatzaki, Z., Stathopoulou, A., Drigas, A., et al (2018). Mobile application tools for students in secondary education. An evaluation study. *International Journal of Interactive Mobile Technologies (iJIM)* vol 12(2),pp142-161, https://doi.org/10.3991/ijim.v13i02. 9896

Nurhas, I.; Aditya, B.R.; Jacob, D.W.; Pawlowski, J.M. (2022). Understanding the challenges of rapid digital transformation: The case of COVID-19 pandemic in higher education. *Behavior and Information Technology,* 41, 2924–2940.

Olga Viberg, Åke Grönlund & Annika Andersson (2023) Integrating digital technology in mathematics education: a Swedish case study, *Interactive Learning Environments*, 31:1, 232-243, https://doi.org/10.1080/10494820.2020.1770801

Oliván Blázquez, B., Masluk, B., Gascon, S., Fueyo Díaz, R., Aguilar-Latorre, A., Artola Magallón, I., & Magallón Botaya, R. (2019). The use of flipped classroom as an active learning approach improves academic performance in social work: A randomized trial in a university. *PloS one*, 14(4), e0214623. https://doi.org/10.1371/journal.pone.0214623

Peng, M. Y. P., Xu, Y., & Xu, C. (2023). Enhancing students' English language learning via M-learning: Integrating technology acceptance model and SOR model. *Heliyon*, 9(2). https://doi.org/10.1016/j.heliyon.2023.e13302

Pratiwi, D. I., & Waluyo, B. (2023). Autonomous learning and the use of digital technologies in online English classrooms in higher education. *Contemporary Educational Technology*, 15(2), ep423. https://doi.org/10.30935/cedtech/13094

Qureshi, M. I., N. Khan, S. M. Ahmad Hassan Gillani, and H. Raza, (2020). A systematic review of past decade of mobile learning: What we learned and where to go, *Int. J. Interact. Mobile Technologies*, vol. 14, no. 6, pp. 67–81, https://doi.org/10.3991/ijim.v14i06.13479

Qureshi, M. I., Khan, N., Raza, H., Imran, A., & Ismail, F. (2021). Digital technologies in education 4.0. Does it enhance the effectiveness of learning? *International Journal of Interactive Mobile Technologies*, Vol. 15 No. 4, p. 31-47, https://doi.org/10.3991/ijim.v15i04.20291

Sevillano-Monje, V., Martín-Gutiérrez, Á., & Hervás-Gómez, C. (2022). The flipped classroom and the development of competences: A teaching innovation experience in higher education. *Education Sciences*, 12(4), 248. https://doi.org/10.3390/educsci12040248

Shaffie, N., Zin, R. M., & Ismail, S. (2020). Accounting Students'Preferences Towards Learning Strategies in Universiti Malaysia Terengganu. Universiti Malaysia Terengganu *Journal of Undergraduate Research*, Volume 2 Number 4, 75-88

Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people, *Technology in Society*, Volume 65, ISSN 0160-791X, https://doi.org/10.1016/j.techsoc.2021.101565

Wen, L. and Wang, Y. (2022), Applying an interactive learning approach provided by an academic coach in a graduate-level accounting course, *Higher Education, Skills and Work-Based Learning*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/HESWBL-12-2020-0258