Effect of Online Learning Resources, Assessments, and Environment on Accounting Students' Confidence and Intention

Andrea Fhaye B. Gines[1]

Jean Audrey G. Milar[2]

Diana Rose B. Revollido[3]

Carlos Vincent E. Valino[4]

Sherwin B. Santos[5]
sherwinsantos@clsu.edu.ph (Corresponding Author)

[1,2,3,4,5]Department of Accountancy, College of Business and Accountancy,
Central Luzon State University, Philippines

Abstract

The persistent decline in examination candidates for Certified Public Accountant (CPA) in the Philippines raises concerns about the readiness and motivation of accountancy graduates to pursue licensure. While several factors influence this decision, the academic environment, particularly the shift to online learning during the pandemic, has become a significant area of interest. This study aimed to examine how online learning systems affected the confidence and intention of accounting students in taking the CPA licensure examination in the Philippines. The study utilized a quantitative descriptive design to assess student responses gathered through a structured survey. The analysis focused on perceptions of online learning effectiveness, reliability of assessments, and preferred learning methods. Results revealed that online learning did not enhance students' confidence and intention to take the CPA examination. Most respondents preferred traditional in-person classes, citing the complexity of accounting subjects and the lack of engagement in virtual settings. Online assessments were viewed as less credible due to limited supervision, and many students relied instead on YouTube tutorials and webinars. Findings suggest the need for higher education institutions to strengthen instructional delivery and assessment credibility in online settings. Hybrid learning models and improved teacher-student interaction may help restore confidence and preparedness among accounting students pursuing professional licensure.

Keywords: Distanced Learning, CPA, Accountants, Readiness, Examination, Philippines

Introduction

The Licensure Examination for Certified Public Accountants has historically been one of the most difficult exams to pass, evidenced by its low passing rate, making it consistently included among the top 10 most difficult examinations in the Philippines. On the average, there is only 2 for every 10 examinees passing the licensure examination for accountants in the Philippines based on published results. Thus, the gap between the number of students graduating with accounting degrees and the number of candidates sitting for the CPA Exam is considerably widening (Santos & Soliven, 2025). According to the 2021 Trends Report of AICPA regarding the CPA Examination, there was a 17% decrease in the CPA Examination candidates between 2019 and 2020, and this decline in CPA examination candidates has implications for the profession and the public.

Numerous factors exert influence on the decision-making process of Bachelor of Science in Accountancy graduates when contemplating whether to pursue licensure examinations (Santos et al., 2025). A study revealed that administrative support, personal, and motivational factors significantly influenced graduates' choices to pursue the board exam. Furthermore, a significant relationship was established between financial considerations and academic performance to the graduates' preparedness for the CPA licensure examination (Micabalo & Cruspero Jr., 2022). However, this paper will focus only on academic factors, mainly on the online learning system used by the students during the pandemic.

The coursework for the accountancy program in the Philippines presents a complex set of practical subjects necessary for the practice of profession. The onset of the COVID-19 pandemic posted several implications to teaching and learning methodologies for several practical courses including the accounting subjects. Online classes introduced different approaches to learning and perception on difficulty which consequently affect the perception for the accountancy profession (Santos et al., 2024).

Online Learning System

The Commission on Higher Education (CHED) issued guidelines and restrictions outlined in CHED Memorandum Order No. 4, Series of 2020. These guidelines included the adoption of flexible learning modalities such as online learning, blended learning, and modular distance learning. CHED emphasized the importance of addressing connectivity and accessibility issues for students, providing training for faculty and students to enhance digital literacy, and developing appropriate assessment methods aligned with the chosen flexible learning modality. These guidelines aimed to support the successful implementation of online learning in the Philippines during the pandemic.

Online learning describes the electronic delivery of teaching using a variety of multimedia and Internet platforms and tools. (Maddison & Kumaran, 2017). There are different types of online learning systems, and during the first year of the pandemic, many institutions adopted asynchronous online classes wherein real-time instruction was inexistent in classes. In this type of online learning, the time range for finishing coursework and tests is offered to students, along with content and assignments. Typically, interaction happens on email, social media platforms, and discussion boards of a specific platform used. Afterward, the synchronous type of online learning system was put in motion. It compels the instructor to engage in simultaneous online communication with all the enrolled students. Students and instructors communicate through text, video, or audio chat, which is quite like a webinar in certain ways. Like many educational institutions worldwide, Central Luzon State University (CLSU) had to swiftly transition from traditional face-to-face instruction to remote teaching and learning methods to ensure the continuity of education. CLSU used online platforms to facilitate virtual and distanced classes such as Google classroom, Zoom Meetings, Google Meet, and other collaborative online communication and content delivery tools.

These included providing recorded lectures, conducting live virtual classes, hosting discussion forums, offering online tutorials, and scheduling virtual office hours for students to interact with faculty and seek clarifications. However, not everyone had the privilege to access the materials and resources that were previously mentioned; hence, learning asynchronously has never been more challenging.

Overall, the difference between the traditional and online learning system is undeniably huge; thus, shifting to this kind of learning system affects the students in many aspects, especially in the learning process, accumulation of knowledge, academic performance, and practical skills to be used in their field.

Online Factors

Online learning has become an integral part of contemporary education, offering flexibility and accessibility to a wide range of learners. However, it is not without its challenges. It is known that the online learning system was an approach that negatively affected the accounting students at Central Luzon State University. The modality of instructions hindered the opportunity of the student to learn beyond their self-taught, self-paced basis of taking in new information. The researchers have categorized relevant factors that affect Online Learning Systems into three categories: Learning Resources, Learning Assessment, and Socio-Economic Factors.

Learning Resources

Learning resources refer to any materials, tools, or sources of information that are utilized to facilitate the process of learning, knowledge acquisition, or skill development. These resources can take various forms and may be used by learners, educators, or both in formal and informal educational settings. The primary purpose of learning resources is to support and enhance the learning experience, making it more effective, engaging, and accessible. Traditional learning resources include physical books, handouts, and printed materials. On the other hand, online learning resources would include Google classroom, e-books, video lectures and discussions, software, and spreadsheets. While online resources are construed to be flexible resources as it can be accessed anywhere, reliable devices and internet are a necessity for most online learning resources. Unfortunately, not all students are able to have a stable and reliable internet connection thereby hampering their online learning experience. This division to access online resources presents unequal opportunities to learn and adversely affects knowledge acquisition (Santos et al., 2024).

The transition to online burdened the students with excessive workload. Since teachers can conveniently assign tasks to online platforms, students receive multiple assignments, projects, and tasks which are relatively higher in number compared to assessments/tasks provided on a traditional classroom setup. This academic stress, including the feeling of isolation, can negatively affect the self-efficacy of students (Santos & Soliven, 2025; Santos et al., 2024).

Learning Assessment

Learning assessments are evidence and measures of student learning. It provides a picture of the student's understanding and thought process. It gives evidence whether specific learning outcomes and goals have been achieved within a specified learning period. The online learning setup presents challenges to the administration and evaluation of the learning assessments because of the proliferation of online cheating (Khan & Jawaid, 2020; Watson & Sottile, 2010). Unreliable internet connection can impede the ability of students to effectively finish tasks within a specified period. This isolation presents the absence of teacher-student interaction. In addition, students need to be digitally competent to use online technologies and

devices which plays a critical role in the learning process during online classes. This shift may present an overemphasis on the technicality of using digital tools rather than focusing on the student learning (Bennett et al., 2008; Junco & Cotton, 2012). Digitally proficient students, on the other hand, may conveniently use multiple platforms reducing focus to learning (Pegrum, 2014).

Learning Environment

In the traditional setup, learning environment comprises of the attributes of physical and social conditions for effective learning to happen. These attributes are considered necessary in developing minds and improving the social skills of students without undue disruptions (National Center for Education Statistics, 2020). On the contrary, the pandemic shifted the learning environment to home environment. In traditional learning, all students have the same learning environment inside a classroom. However, for online learning, the environment differs for every student. Consequently, students from poor families may face challenges in creating an effective learning space due to limited space, lack of resources, and/or noisy surroundings (Hartnett, 2015; Kelly et al., 2020). In addition, social interaction among students, peers, and teachers is lacking in the online setup (Hartnett, 2015). A student must learn by himself, manage his own time, and motivate himself independently (Artino, 2007).

Confidence, Academic Performance and Intention

Self-efficacy or one's belief in his own ability is a significant predictor of academic performance (Cassady & Johnson, 2002; Bandura, 1997). When the student's confidence in his own ability is high, there are higher chances that he will perform well (Santos & Larasati, 2025; Bandura, 1997). This can be attributed to the student's persistent effort in achieving success because he believes that his self-efficacy can produce the desired outcomes. In addition, students who intend to take licensure examination with high self-efficacy tend to have a more positive mindset affecting their performance in the licensure tests (Honicke & Broadbent, 2016; Bandura, 1997). Students who performed well academically have strengthened intention to pursue licensure examinations because of their perceived competence and readiness (Honicke & Broadbent, 2016; Lent et al., 2002).

Literature Gap

Several studies have pointed out the determinants of student intention to take licensure tests for students under traditional setups, but a limited number explored the conditions for students under online learning. Skhephe (2022) posits that students are significantly impacted by the sudden shift to learning resources, assessments, and environment brought by the pandemic. This is particularly evident for students at the exit level (Skhephe, 2022).

However, since everyone is still adjusting to the re-opening of different institutions, related studies about the impact of online classes on accountancy students and the Licensure Examination for CPA are still limited. Hence, the conduct of this study is timely and will make a significant contribution to literature. Moreover, the issue of the widening gap between the number of graduating students with accounting degrees and the number of candidates sitting for the LECPA needs to be studied to address the possible shortage of professional accountants in the future.

Overall, this study will primarily identify key factors in the online learning system that significantly affect students' confidence and intent to take the Licensure Examination for Certified Public Accountants. The researchers will discuss the findings and suggest ways for students and the department to address any deficiencies encountered during online learning.

Problem Statement

This study primarily aims to determine the factors from the online learning system affecting the confidence and intention of students in taking the Licensure Examination for CPAs (LECPA). In addition, it also intends to answer the following questions:

1. How does the online learning system affect the respondents' confidence and intention in taking the LECPA?
2. Which among the selected online learning factors affect the confidence and intention of the respondents in taking the LECPA?
a) Learning Resources.
b) Learning Assessments, and.
c) Learning Environment

Methodology

The study utilized a quantitative descriptive design to assess student responses gathered through a structured survey. The population of the study are final-year accounting students for academic year 2023-2024 in the College of Business and Accountancy of Central Luzon State University, Science City of Muńoz, Nueva Ecija, Philippines. The study employed complete enumeration of 51 final-year accounting students to ensure representativeness, accuracy and unbiased results. Questionnaires in four-point Likert scale format were designed to accurately identify the factors from the online learning system that significantly affect the intention and confidence level of accountancy students in taking the Licensure Examination for CPAs. The data collection tool was tested for reliability and validity at Central Luzon State University with analysis of the internal consistency of the constructs used in the survey questionnaire. The Cronbach alpha scores were used to determine the internal consistency. Reliability tests showed acceptable internal consistency for learning resources (a=0.70) and learning assessments (a=0.70) while good internal consistency for learning environment (a=0.81). The study employed descriptive statistics using frequencies and percentages to analyze the data from the responses of 51 accounting students representing the entire population of this current study. These measures were used to provide a straightforward summary of the participants' responses and highlight the general trends within the dataset. The scale value provided in Table 1 was utilized to analyze the results of the questionnaire.

Table 1

Descriptors

Ratings	Range	Verbal Interpretation	Description
4	3.25 – 4.00	Strongly Agree	respondents are in total agreement with the statement.
3	2.50 – 3.24	Agree	respondents agree with most of the statements.
2	1.75 – 2.49	Disagree	respondents disagree with most of the statements.
1	1.0 – 1.74	Strongly Disagree	respondents are in total disagreement with the statement.

Results and Discussion

Table 1 presents the impact of the online learning system on the confidence of accounting students in preparing for the LECPA. Based on the data derived from the students' responses, most of the students, a substantial portion, constituting 28 respondents, disagrees with the statement, while 18 respondents strongly disagree. On the contrary, only 5 respondents agree with the statement. This suggests a prevailing sentiment of diminished confidence resulting from online learning experiences among the surveyed individuals. Consequently, the next statement shows the impact of online learning system to the intention of accounting students in taking the LECPA. Based on the data gathered, most respondents, comprising 30

individuals or 58.82% of the total, disagree with the statement, while 16 respondents strongly disagree. Conversely, only five respondents combined expressed agreement with the notion. These findings suggest a prevailing sentiment that online learning has not significantly contributed to fostering the intention to take the CPA Licensure Examination among the surveyed individuals.

Table 2
Impact of online learning on confidence and intention (in %)

Statement	4	3	2	1
Online learning enhanced my confidence in preparing for the licensure examination.	1.96	7.84	54.90	35.29
Online learning positively influenced intention to take the licensure examination.	1.96	7.84	58.82	31.37

Table 2 displays the students' feedback on statements pertaining to their learning resources in online classes. Accounting books (45.10%), as recommended by the professors, often lead to increased academic performance. The use of recommended references contributes to the improved comprehension and proficiency of students (Clark et al., 2021). The outlines of the syllabus, the use of a reference book, and the integration of the topics enhance the academic performance of students. Video discussions (50.98%) by the professors effectively help students in grasping complex accounting topics and promotes more practical ways to solve complicated accounting problems. This also enhances accessibility as students can replay videos at their own pace and time (Guo et al., 2014). In addition, the provision of learning materials in Portable Document Formats (PDFs) enhances student's self-directed learning (Nikulova & Bobrova, 2016; Ozkan & Koseler, 2009). YouTube tutorials and webinars (54.90%) are the most preferred reliable learning resources for students in the online learning setup because of its accessibility and established reliability as resource speakers are from reputable accounting institutions in the country. Online communications (47.06%) through e-mails, messenger, and facilitation of virtual office hours promote effective student-teacher interaction to address academic inquiries and clarifications on discussions. However, a substantial portion (41.18%) believe that online communications still cannot replicate the effectiveness under the traditional in-person setup. Personal devices and internet (50.98%) are essential to achieving high academic performance during the online learning setup.

Table 3
Online learning resources and student performance (in %)

Statement	4	3	2	1
Accounting books	41.18	45.10	7.84	5.88
Video discussions by the teacher	21.57	50.98	19.61	7.84
YouTube tutorials and webinars	37.25	54.90	1.96	5.88
E-mails, messenger, virtual office hours	5.88	47.06	41.18	5.88
Personal devices, internet	21.57	50.98	19.61	7.84

Table 3 presents the effect of online learning assessments on student performance. These online assessments are aligned with the course objectives (58.82%) of the accountancy program. This ensures that despite the shift to online setup, the link between the administered online assessments and the expected learning among students is still strong. Assessment and outcome link are important predictors of student learning (Barthakur et al., 2022; Zapalska et al., 2018). Results show that online assignments provided practical applications (58.82%). This is particularly expected since assignments are done at home even in traditional in-person

learning. Assignments remain an effective contributor in ensuring improved retention in knowledge, comprehension, and practical application of topics taught inside the classroom (Masalimova et al., 2023; Songsirisak & Jitpranee, 2019).

It was revealed further that feedback were provided timely (45.10%) in the online learning system because of easier accessibility to platforms. This allows effective flow of information, academic inquiries, and clarification on discussions (Turner & Baskerville, 2013). Lack of effective feedback mechanisms may affect student's self-efficacy and perception of competence and readiness. This also allows clearer direction on student learning and promotes supervising learning hampering academic dishonesty (Fendi et al., 2021). Table 4 also reveals that online learning assessments were not monitored to adequately ensure reliability of results (45.10%). Academic dishonestly is particularly evident in less supervised learning environments (Fendi et al., 2021). Quantity of assessments are considered moderate and enough (49.02%).

Table 4
Online learning assessments and student performance (in %)

Statement	4	3	2	1
Alignment with the course objectives.	15.69	58.82	17.65	7.84
Assignments provided practical application.	13.73	58.82	25.53	3.92
Feedback was provided timely.	-	45.10	41.18	13.73
Assessments were monitored to ensure reliability.	3.92	39.22	45.10	11.76
Quantity of assessments is moderate and enough.	1.96	49.02	27.45	21.75

Table 4 shows the results for online learning environment and its effect on student performance. Results show that flexibility to revisit topics at own pace is effective in the student's academic performance (52.94%). Several studies posit that independent learning students are effectively exercised during online learning (Santiago et al., 2021; Dhawan, 2020). On the other hand, some studies pointed out that there is still a need to develop learner control and focus among students during independent learning (Reyes et al., 2021; Santiago et al., 2021). A study found that students reusing online educational resources tailored to their needs was the most straightforward approach to align with learner control (Santiago et al., 2021). Table 5 also reveals that online learning promotes independent learning (54.90%). This aligns with the investigation conducted by Fitriasari and Fauzi (2022), highlighting that while the pandemic has placed a significant demand on students to be independent, this independence does not universally benefit everyone.

On the other hand, the absence of physical classroom hinders student discipline and productivity (56.86%). Online setup provides more distractions, lesser focus and attentiveness among accounting students (50.98%) as personal boundary at home is difficult to ascertain (49.02%). Several studies pointed out these findings on unfavorable learning environment for remote learners (Reynolds & Sokolow, 2022; Rotas & Cahapay, 2020; Baticulon et al., 2021; Chang, 2022).

A study conducted by Reynolds and Sokolow (2022) raises questions about the psycho-geographical implications of online learning for students. Psychogeography, as defined by Debord (2006), is the study of how geography affects human emotions. In support of the study, this can be attributed to the absence of a physical classroom for the students and the challenge of identifying personal space and a 'classroom' within their own household. For the students, there is no clear distinction beyond the presence of a screen and an online learning system provided by the university. However, this is merely divided by an application on the screen. with the statement. (29.41%) that disagree and 4 students (7.84%) that strongly disagree with this statement.

Table 5
Online learning environment and student performance (in %)

Statement	4	3	2	1
I have flexibility to review and revisit topics at my own pace and convenience.	17.65	52.94	21.57	7.84
Absence of a physical classroom does not hinder student discipline and productivity.	5.88	3.92	56.86	33.33
Despite distractions, focus and attentiveness are sustained during online classes.	3.92	11.76	50.98	33.33
Clear boundary between online learning and personal space is easy when studying at home.	5.88	9.80	49.02	35.29
Online learning fosters independent learning.	7.84	54.90	29.41	7.84

Conclusion

The analysis shows that online learning did not enhance student confidence and intention in taking the licensure examination for professional accountants in a public university in the Philippines. The conduct of in-person classes is still preferred by accounting students considering the complexity of the subject. The shifting to online delivery of discussions adversely affects student learning. Majority of the accounting students preferred YouTube tutorials and webinars as more reliable during an online learning setup than online discussions by their own teacher. While online learning assessments are construed to align with the learning objectives of their program, respondents believe that it is less reliable and credible because of low teacher supervision and monitoring. This is supported by the findings that online learning environment results to lowering productivity because of the distractions at home and unclear boundary between study and personal space. These findings provide policy recommendations on the improvement of the delivery of online classes using appropriate and effective learning management systems. Improvement should be made in online infrastructure, digital tools, and capacity-building for teachers and students on the use of online resources. Stricter monitoring on online assessments is recommended to ensure academic integrity and effectiveness of the teaching-learning deliveries.

Future studies could explore coverage to a regional or national scope since the current study focused only on a public university in Central Luzon region where social-cultural factors, resources, and economic conditions could be different on other universities, regions, or national level.

References

Artino, A. R., Jr. (2007). Self-regulated learning in online education: A review of the empirical literature. *International Journal for the Scholarship of Teaching and Learning, 1*(1).

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.

Barthakur, A., Joksimović, S., Kovanović, V., Richey, M., & Pardo, A. (2022). Aligning objectives with assessment in online courses: Integrating learning analytics and measurement theory. *Computers & Education, 190*, 104603. https://doi.org/10.1016/j.compedu.2022.104603

Baticulon, R. E., Sy, J. J., Alberto, N. R. I., Baron, M. B. C., Mabulay, R. E. C., Rizada, L. G. T., Tiu, C. J. S., Clarion, C. A., & Reyes, J. C. B. (2021). Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines. *Medical Science Educator, 31*(2), 615–626. https://doi.org/10.1007/s40670-021-01231-z

Bennett, S., Maton, K., & Kervin, L. (2008). The "digital natives" debate: A critical review of the evidence. *British Journal of Educational Technology, 39*(5), 775–786.

https://doi.org/10.1111/j.1467-8535.2007.00793.x

Cassady, J. C., & Johnson, R. E. (2002). Cognitive test anxiety and academic performance. *Contemporary Educational Psychology, 27*(2), 270–295. https://doi.org/10.1006/ceps.2001.1094

Chang, I.-J. (2022). Resilience in the pandemic: Remote learning on the fly. *E-Learning & Digital Media.* https://doi.org/10.1177/20427530221092859

Clark, A. E., Nong, H., Zhu, H., & Zhu, R. (2021). Compensating for academic loss: Online learning and student performance during the COVID-19 pandemic. *China Economic Review, 68*, 101629.

Debord, G. (2006). Introduction to a critique of urban geography. In K. Knabb (Ed. & Trans.), *Situationist International anthology* (pp. 4–10). Bureau of Public Secrets.

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems, 49*(1), 5–22. https://doi.org/10.1177/0047239520934018

Fendi, H., Hanafi, I., Monia, F. A., Sudarman, T., Taufiq, M. A., & Putri, R. E. (2021). Online-based academic supervision during the COVID-19 pandemic. *Journal of Physics, 1779*(1), 012027. https://doi.org/10.1088/1742-6596/1779/1/012027

Fitriasari, S., & Fauzi, A. (2022). Independent learning in the COVID-19 pandemic. *Advances in Social Science, Education and Humanities Research.* https://doi.org/10.2991/assehr.k.220108.094

Guo, P. J., Kim, J., & Rubin, R. (2014). How video production affects student engagement: An empirical study of MOOC videos. In *Proceedings of the First ACM Conference on Learning at Scale* (pp. 41–50). https://doi.org/10.1145/2556325.2566239

Hartnett, M. (2015). Influences that undermine learners' perceptions of self-determination and their online behavior. *Australasian Journal of Educational Technology, 31*(3), 221–232. https://doi.org/10.14742/ajet.1526

Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational Research Review, 17*, 63–84. https://doi.org/10.1016/j.edurev.2015.11.002

Junco, R., & Cotten, S. R. (2012). The relationship between multitasking and academic performance. *Computers & Education, 59*(2), 505–517. https://doi.org/10.1016/j.compedu.2011.12.023

Kelly, A., Johnston, N., & Matthews, S. (2020). Online self-access learning support during the COVID-19 pandemic: An Australian university case study. *Studies in Self-Access Learning Journal, 11*(3), 187–198. https://doi.org/10.37237/110307

Khan, R. A., & Jawaid, M. (2020). Technology-enhanced assessment (TEA) in the COVID-19 pandemic. *Pakistan Journal of Medical Sciences, 36*(COVID19-S4), S108–S110. https://doi.org/10.12669/pjms.36.COVID19-S4.2795

Lent, R. W., Brown, S. D., Talleyrand, R., McPartland, E. B., Davis, T., Chopra, S. B., & Chai, C. M. (2002). Career choice barriers, supports, and coping strategies: College students' experiences. *Journal of Vocational Behavior, 60*(1), 61–72.

Maddison, T., & Kumaran, M. (Eds.). (2017). *Distributed learning: Pedagogy and technology in online information literacy instruction*. Chandos Publishing.

Masalimova, A. R., Kuznetsova, O. A., Orekhovskaya, N. A., Panov, E. G., Svintsova, M. N., & Shevchenko, O. V. (2023). Exploring the impact of homework assignments on achievement and attitudes in science education. *Eurasia Journal of Mathematics, Science and Technology Education, 19*(4), em2246. https://doi.org/10.29333/ejmste/13058

Micabalo, K. G., & Cruspero, E. C., Jr. (2022). Factors affecting accountancy graduates' readiness for the Certified Public Accountant licensure examination. *International*

Journal of Research in Commerce and Management Studies, 4(3), 116–135.
https://doi.org/10.38193/IJRCMS.2022.4307

National Center for Education Statistics. (2020). *The condition of education 2020* (NCES 2020-144). U.S. Department of Education, Institute of Education Sciences.

Nikulova, G. A., & Bobrova, L. N. (2016). Online education resources and student needs: Stylistic aspects. *Indian Journal of Science and Technology, 9*(42), 1–10.

Ozkan, S., & Koseler, R. (2009). Multi-dimensional students' evaluation of e-learning systems in the higher education context: An empirical investigation. *Computers & Education, 53*(4), 1285–1296.

Pegrum, M. (2014). *Digital literacies: Research and resources in language teaching*. Routledge.

Reyes, J. R. S., Grajo, J. D. L., Comia, L. N., Talento, M. S. D. P., Ebal, L. P. A., & Mendoza, J. J. O. (2021). Assessment of Filipino higher education students' readiness for e-learning during a pandemic: A Rasch technique application. *Philippine Journal of Science, 150*(3), 1007–1018.

Reynolds, R. H., & Sokolow, T. (2022). Spaces and places in online learning: Perspectives from students and staff. *Journal of Learning Development in Higher Education, 24*. https://doi.org/10.47408/jldhe.vi24.863

Rotas, E., & Cahapay, M. B. (2020). Difficulties in remote learning: Voices of Philippine university students in the wake of COVID-19 crisis. *Asian Journal of Distance Education, 15*(2), 147–158. https://doi.org/10.5281/zenodo.4299835

Santiago, C. S., Ulanday, M. L., Centeno, Z. J., Bayla, M. C. D., & Callanta, J. S. (2021). Flexible learning adaptabilities in the new normal: E-learning resources, digital meeting platforms, online learning systems and learning engagement. *Zenodo*. https://doi.org/10.5281/zenodo.5762474

Santos, S. B., & Soliven, P. C. E. (2025). Gender disparities in accounting education: Systematic review using PRISMA. *International Journal of Advanced Multidisciplinary Research and Studies, 5*(5), 734–739.

Santos, S., & Larasati, M. (2025). Whistleblowing intentions of accountants and auditors: Evidence from the Philippines and Indonesia. *Salud, Ciencia y Tecnología – Serie de Conferencias, 4*, 40. https://doi.org/10.56294/sctconf20251325

Santos, S., Gallardo Jr, G., & Santos-Recto, M. M. (2025). Modeling the determinants of success for accountants: Evidence from a public university in the Philippines. *Management (Montevideo), 3*, 297. https://doi.org/10.62486/agma2025297

Santos, S., Laforteza, B. C., Miranda, B. K., Lachica, L. J. V., & Ann, L. (2024). Developed core competencies of accountancy students in blended learning. *International Journal of Advanced Multidisciplinary Research and Studies, 4*(6). https://doi.org/10.62225/2583049X.2024.4.6.3562

Skhephe, M. (2022). The effect of COVID-19 pandemic on accounting classrooms: South Africa. *Jurnal Penelitian dan Pengkajian Ilmu Pendidikan: e-Saintika, 6*(2), 93–107. https://doi.org/10.36312/esaintika.v6i2.675

Songsirisak, P., & Jitpranee, J. (2019). Impact of homework assignment on students' learning. *Journal of Education Naresuan University, 21*(2), 1–19.

Turner, M., & Baskerville, R. F. (2013). The experience of deep learning by accounting students. *Accounting Education, 22*(6), 582–604. https://doi.org/10.1080/09639284.2013.847323

Watson, G. R., & Sottile, J. (2010). Cheating in the digital age: Do students cheat more in online courses? *Online Journal of Distance Learning Administration, 13*(1).

Zapalska, A. M., McCarty, M. D., Young-McLear, K., & White, J. A. (2018). Design of assignments using the 21st century Bloom's revised taxonomy model for development

of critical thinking skills. *Problems and Perspectives in Management, 16*(2), 291–305. https://doi.org/10.21511/ppm.16(2).2018.27