



ONLINE EDUCATION EVOLUTION: ENGLISH TEACHERS AND THE SCHOOLGY SHIFT

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Abstract

Integration of technology has penetrated into various fields, including education. With its constant development, technology is always evolving, offering a wide range of applications and sophistication. Accessible to everyone, including teachers, technology raises the question of its acceptance in learning. The goal of this study was to investigate the acceptance of technology in English learning, specifically focusing on the use of Schoology as a platform. Furthermore, it aimed to identify the challenges encountered when integrating it into English learning. The study involved twenty teachers who used Schoology as a supporting medium in the learning process and was conducted through polls and questionnaires. Through this study, the authors aimed to enhance English learning by exploring how technology, specifically Schoology, could be integrated into it. The results provided valuable insights into the acceptance of Schoology among teachers and the challenges faced when integrating it into English learning.

Keywords: English teachers, Teacher's Technology Acceptance Model, Schoology as a platform, Online learning, English Learning

INTRODUCTION

Current technological advancements are swiftly revolutionizing various aspects of human life, including education, where Blended Learning stands as an integral part of the 4.0 Industrial Revolution. Among the topics under discussion concerning the integration of technology in learning is an educational system that intertwines digital competency within the curriculum and assessment (Beller, 2013; Flórez et al., 2017; Siddiq et al., 2016). Furthermore, educators are encouraged to embrace technology in learning activities, particularly in formative assessment, aiming to foster digital literacy-based communities for both students and teachers. This transformation aims to equip them to navigate the complexity and dynamism of modern educational landscapes, where technology has become indispensable.

With the rapid and sophisticated evolution of technology, its acceptance has transcended generational boundaries, extending beyond just the millennial cohort. Even educators who were born before the digital age have become adept at its proper utilization. Numerous theories have emerged, seeking to delve into and elucidate the underlying reasons for individuals' acceptance, rejection, or reluctance to adopt new technology (Fishbein & Ajzen, 2010; Venkatesh, 2000).

The question arises: How crucial is it, and to what extent can teachers integrate technology into learning, given its variability (Bishop & Spector, 2014)? Despite a significant increase in technology usage, its acceptance and implementation continue to present challenges in the field of education (Berrett, Murphy, & Sullivan, 2012; Straub, 2009). This aligns with the analysis by Scherer, Siddiq, and Tondeur (2019), suggesting that although teachers, both pre-service and in-service, generally receive technology well, specific significant constructs and the relevance of external variables contradict individual beliefs about the Technology Acceptance Model (TAM).

Davis initially introduced the Technology Acceptance Model (TAM) in 1986, deriving it from the Theory of Reasoned Action (TRA) to illustrate how users adopt information systems. TAM aims to elucidate the influencing factors behind technology reliant on information and the behaviors of its end-users, recognizing potential differences among user groups. An ideal model should be predictive and understandable, enabling researchers and practitioners to gauge the probability of system rejection and implement necessary remedies.

Across the years, the Technology Acceptance Model (TAM) has garnered recognition in both educational and research domains (Al-Adwan & Smeldley, 2012; Al-Oteawi, 2012; Buabeng-Andoh, 2012). TAM aims to establish a framework for comprehending how external elements impact internal beliefs, attitudes, and intentions. It accomplishes this by pinpointing a few core variables derived from earlier research and theories concerning factors influencing technology acceptance. Additionally, it integrates the TRA as a foundational framework to model the connections among these variables.

The primary goal of the Technology Acceptance Model (TAM) is to elucidate and forecast user adoption of technology. Stemming from the TRA, it is designed to anticipate user acceptance by considering two key elements: perceived usefulness and perceived ease of use (Davis, 1989). TAM is an information systems concept aimed at aiding users in comprehending and implementing information technology.

Davis (1989) developed TAM by adapting Fishbein and Ajzen's (1975) TRA theory, which was employed to assess respondents' adoption of information technology. TAM's foundational framework incorporates the notions of usability, ease-of-use, attitude, behavioral intent, actual usage, and several external factors like experience and complexity. The structure of technology acceptance within TAM is detailed as follows:

A. Perceived Usefulness

The concept of utility pertains to an individual's conviction that utilizing a particular system could enhance their job performance. Hence, it can be inferred that the functionality of technology has the potential to elevate the work outcomes of any individual. Thomson et al. (1991) asserted that users of information technology anticipate deriving advantages from it to aid their responsibilities, comprehending its advantageous aspects.

B. Perceived Ease of Use

The ease-of-use perspective assures users that the employed information technology is straightforward and beneficial for them, leading users to consistently utilize accessible ICT tools.

According to Davis (1989), perceived ease of use is a stage where individuals believe that employing specific systems can minimize their efforts in tasks. Their interactions with the

system can illustrate its user-friendliness. As users engage more frequently with the technology, they grow accustomed to it, enhancing their ability to navigate and operate the system with greater ease.

C. Application Attitude

Derived from Aakers and Myers (1997), application attitude signifies an individual's inclination towards the product's usage, whether it's favorable or unfavorable. This stance can forecast an individual's behavior or their intention to utilize the product.

D. Intention for Usage Behavior

As outlined by Davis (1989), intention for usage behavior refers to the inclination to continuously utilize a technology, where the level of technology usage is gauged by one's attitude and interest in it. This encompasses the intent to increase adoption, facilitate usage, and influence others to embrace the technology.

E. Actual Adoption

Actual adoption pertains to the real-world application of a system. Users are inclined to employ a system if they are convinced of its ease of use and its enhancement of output, as evidenced in real-world usage scenarios. The frequency and duration of technology usage serve as measures here.

F. Job Fit

Thompson et al. (1991) developed a model incorporating elements from Triandis' theory, where social norms, impact, complexity, task suitability, long-term effects, and conducive conditions influence the adoption of information technology. Job fit refers to the alignment between task needs, individual abilities, and the function of technology. This alignment is shaped by the relationship among the user's traits, the applied technology, and the technology-based tasks.

G. Experience

Fishbein and Ajzen (1980) noted a substantial contrast between experienced and inexperienced users in their influence on actual usage. Taylor and Todd's Study (1995) corroborated this, demonstrating that experiences and complexity, as external perspectives, impact technology usage. Experienced users tend to employ technology more and significantly correlate with actual usage.

H. Complexity

Thompson et al. (1991) explained that the complexity of an innovation inversely correlates with its adoption rate. The complexity of an ICT innovation influences a user's grasp of its application.

This study focuses on four primary constructs delineated by Davis (1989): perception of usefulness, perception of ease-of-use, attitude towards application, and the inclination to use Schoology. External perspectives like experience and complexity are included as queries related to challenges encountered in using Schoology.

Schoology is an online social network designed specifically for K-12 schools and higher education institutions with a strong focus on fostering collaboration. It provides users with tools to generate, organize, engage with, and distribute academic content. This e-learning platform grants teachers and students access to attendance records, assignments, exercises, and educational materials that can be reached at any time and from any location. Moreover,

it offers parents the ability to track their children's academic progress at school (Farmington, Schoology 2014). The advantages of Schoology are manifold:

1. **Connectivity:** Teachers can effortlessly share updates within courses and groups, communicate via private messages, offer feedback to students, and coordinate events using the user-friendly Schoology interface on their mobile devices.
2. **Extended Learning:** Students have the flexibility to access lessons online, collaborate with peers, and pursue independent learning through their mobile devices, ensuring education happens beyond the confines of the classroom and at their convenience.
3. **On-the-Go Management:** Schoology empowers teachers to easily authorize permissions, assign tasks, engage in discussions, review students' homework, and evaluate their progress. Additionally, teachers can provide feedback to students using their mobile devices.
4. **Compatibility with iOS and Android Devices:** Schoology offers a free mobile application accessible on both iOS and Android-based devices. The app also features notifications for updates or recent posts, ensuring users can promptly update the app as needed.

Key features of Schoology include:

- a. **Courses:** Providing facilities to create various course classes such as Grammar, Islamic Education, Mathematics, among others.
- b. **Groups:** Enabling the creation of study groups.
- c. **Learning Resources:** The platform allows the creation of quizzes and problems encompassing multiple question types like multiple choice, true/false, matching, and short answer. These assignments, often in the form of homework, can be completed at home, granting teachers remote oversight. Schoology particularly serves mathematics teachers well by offering tools for creating problems that incorporate symbols, equations, and LaTeX, facilitating tasks with images, symbols, and equations.

In addition to quizzes/problems and assignments, Schoology supports the establishment of forums within courses, functioning as discussion hubs for students. Schoology's functionality parallels that of Moodle in various aspects, though it doesn't require hosting and a domain, which are prerequisites for setting up Moodle.

From the findings, it's evident that teachers' adoption of technology, assessed through the TAM framework, aligns within the "good" spectrum. However, despite numerous studies delving into teachers' technology acceptance, there remains a dearth of analyses concentrating on specific learning management systems or applications, such as Schoology. Schoology, an LMS utilized in Blended Learning since 1992, epitomizes E-Learning concepts and serves as a response to the integration of technology in the Fourth Industrial Revolution. Widely embraced by educators globally, this platform facilitates discussions, quizzes, attendance tracking, and video calls, transcending the confines of physical classrooms. Its flexibility allows learning activities to occur anytime and anywhere, adhering to predetermined agreements (Ferdianto & Dwiniasih, 2019).

Given the paucity of research concentrating on specific applications, rather than generalized technology acceptance, the authors aim to scrutinize the impact on English teachers' acceptance of Schoology and the challenges they confront when incorporating it.

METHOD

Population and Sample

In response to recent concerns driving the authors' curiosity about technology acceptance in education, a case study approach was adopted. This investigation involved 20 educators who are active members of the Schoology Educators group on the Schoology platform, hailing from diverse countries, namely Indonesia, Malaysia, Vietnam, Saudi Arabia, the Philippines, the United States, Colombia, Argentina, and Brazil. Purposive sampling was utilized, exclusively selecting teachers who had utilized the Schoology platform in their English courses.

Instrumentation

Data collection involved the distribution of a structured questionnaire to all participants, aiming to gauge the level of technology acceptance, particularly concerning Schoology. This questionnaire also aimed to explore the obstacles encountered by educators when integrating Schoology into English language teaching. Given the varying usage of this learning management system across different countries, research subjects were randomly selected from all represented nations.

Data Analysis Procedures

This study employed several stages, including an examination of Schoology's utilization in English language instruction. Participants completed a questionnaire, adapted from Davis (1986) and rooted in the Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen (1975), which was disseminated via a Google form. The responses from this questionnaire were treated as primary data for analysis. Additionally, to gain comprehensive insights into the challenges faced by educators while incorporating Schoology, authors included an essay question to enhance data acquisition.

RESULTS AND DISCUSSION

The Adoption and Integration of Schoology Technology in English Language Pedagogy

This research encompassed multiple implementation stages, including the data collection detailed in the preceding chapter. Initially, closed questionnaires were distributed using a Google form through teacher groups accessible within the Schoology feature. Leveraging this feature proved invaluable for researchers due to challenges in obtaining suitable samples—few educators or instructors incorporate the Schoology Learning Management System (LMS) in their educational practices. Many were unaware of its existence. To overcome this hurdle, participants were selectively chosen based on their teaching subjects or courses, specifically focusing on English language instruction and requiring a minimum undergraduate education background.

The user-friendly features of Schoology facilitated the inclusion of participants from diverse countries, including Indonesia, Malaysia, Vietnam, the Philippines, Saudi Arabia, Argentina, the United States, Colombia, and Brazil. Despite the diverse geographical backgrounds, the researchers were confident in the validity and reliability of the findings, given that participants shared similar foundational technological competencies before using Schoology. Logically, participants with lower levels of technology acceptance would struggle to effectively utilize this LMS.

The compiled questionnaire drew from various theories, notably Davis (1989), which stems from the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), previously employed in other studies. It gauged usage levels through indicators such as perception of usability, ease of use, attitude, and behavioral intention. Each indicator offered a range of response options, from strongly disagree to strongly concur. Furthermore, external perspectives, including experience and complexity, were captured via an open questionnaire to pinpoint challenges faced in utilizing Schoology.

Table 1. Questionnaire for the use of respondents in Schoology acceptance

No.	Variable Rate Use of Schoology	Item Questions
1.	Perception of usability use	A. Utilizing Schoology enables tasks to be executed more objectively. B. Schoology grants increased control over the work. C. Learning to operate Schoology is straightforward for me. D. It would be very easy for me to accomplish my objectives using Schoology. E. Interacting with Schoology will be very clear and comprehensible. F. I perceive Schoology as flexible and easy to engage with. G. Acquiring proficiency in using Schoology would be effortless for me.
2.	Perspective Ease of Use	A. Using Schoology in my work will allow me to complete the task more quickly and efficiently. B. Using Schoology will improve the performance of my tasks/work. C. Using Schoology in my work will increase my productivity. D. Using Schoology will increase my effectiveness in performing tasks/jobs. E. Using Schoology will make my task/job easier.
3.	Attitudes toward application	A. Using Schoology is advised in English practice B. Using Schoology is a fun idea to do my job/work C. I would enjoy using Schoology in doing my duty. D. I would be content to use Schoology in doing my duty.
4.	Desire to use behavior	A. I estimate that I will use Schoology regularly in the future. B. Schoology will be one of my favorite technologies for my work. C. I intend to use Schoology in my work.

After distributing the questionnaire to the participants, the researchers collected the data entered into the Google Form system and tailored the analysis to meet the research objectives. The initial indicators assessed were the levels of perceived usage, as depicted in Figure 1. Perceived usage encompasses an individual's belief that using a specific system

can enhance their work performance. Hence, it can be inferred that technological usability contributes to improving the performance and achievements of anyone employing it. Moreover, Thomson et al. (1991) asserted that users of IT systems acknowledge the benefits of its use in bolstering their responsibilities. Consequently, it can be inferred that employing Schoology can enhance users' performance and work accomplishments.

Figure 1. The perspective of use

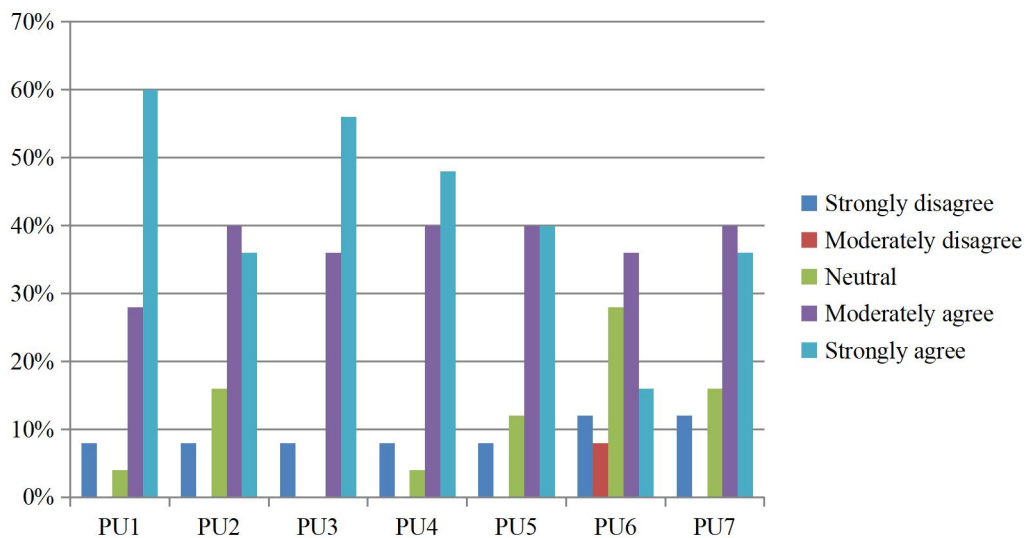


Figure 1 illustrates that 60% of participants strongly agree that Schoology enables tasks to be performed more objectively, while 28% agree, 4% remain neutral, and 8% strongly disagree with this statement. Regarding control over tasks, 36% strongly agree and 40% quite agree, while 16% are neutral, and 8% strongly disagree. Additionally, 56% strongly agree that learning to operate Schoology is easy, with 36% quite agreeing, and 8% strongly disagreeing. Moreover, 48% strongly agree that they can easily achieve their objectives using Schoology, with 40% quite agreeing, 4% neutral, and 8% strongly disagreeing. However, only 16% strongly agree that interactions with Schoology are clear and easy, with 36% quite agreeing, 28% neutral, 8% disagreeing, and 12% strongly disagreeing. Lastly, 36% strongly agree that Schoology is flexible to interact with, 40% quite agree, 16% are neutral, and 12% strongly disagree.

These findings portray a very positive perception of Schoology's utilization in learning among the participants. Similar results were analyzed by Scherer, Siddiq, and Tondeur (2019), indicating widespread acceptance of technology among teachers (both pre-service and in-service). However, they noted discrepancies concerning certain key constructs and the influence of external variables, challenging prevailing beliefs about TAM.

Additionally, according to Davis et al. (1989), ease of use constitutes a crucial point in the TAM model. Empirical results supported this factor, explaining why end-users engage with information systems and embrace newly developed systems.

Subsequently, the analysis focused on the level of perceived ease of use of Schoology, as depicted in Figure 2. The perspective of ease of use assures users that the information technology employed is straightforward and beneficial for them. Consequently, users tend to persist in using technology perceived as easy to apply. Davis (1989) highlighted that

perceived ease of use is a stage where individuals believe that certain systems can alleviate their efforts in performing tasks. With increased interaction and experience with the system, users find it progressively easier to navigate and operate. This familiarity leads to enhanced knowledge of the system's workings, facilitating its use, as illustrated in Figure 2.

Figure 2. The perspective of ease-of-use

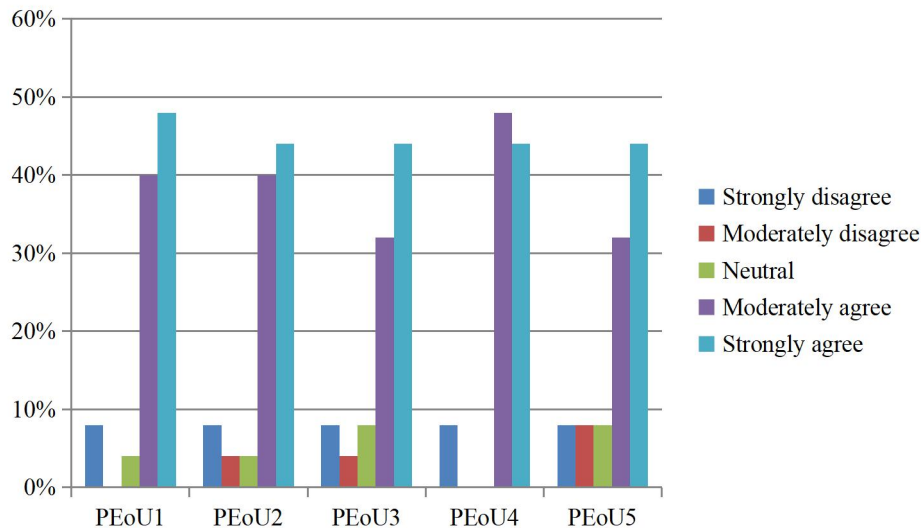
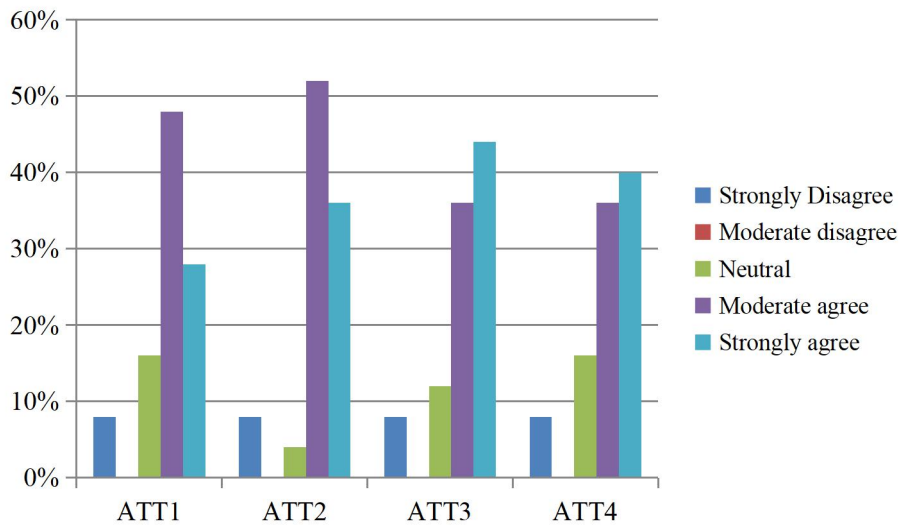


Figure 2 reveals that 48% of participants strongly agree that employing Schoology in their tasks leads to quicker and more efficient completion, with 40% quite agreeing. Conversely, 4% were neutral, and 8% strongly disagreed with this notion. In the subsequent statement, 44% strongly agreed and 40% quite agreed that Schoology enhances their job performance. Only 4% were neutral or disagreed, while 8% strongly disagreed with this assertion. Moreover, 44% strongly agreed that Schoology boosts productivity, accompanied by 32% quite agreeing, 8% remaining neutral, and 16% either quite disagreeing or strongly disagreeing. Additionally, 44% strongly agreed that Schoology enhances task effectiveness, with 48% quite agreeing, while 8% strongly disagreed. Regarding the ease of use perspective, 44% strongly agreed that Schoology simplifies their tasks, along with 32% quite agreeing, while 8% remained neutral or disagreed.

These findings indicate a highly favorable practical outlook among participants using Schoology, as depicted in Figure 2.

Following the analysis of various indicators regarding technology acceptance, the researchers delved into participants' attitudes toward the application of Schoology, outlined in Figure 3. Attitude towards application materials, based on Aakers and Myers (1997), pertains to the evaluative perspective individuals hold regarding the application of a product. This perspective often predicts an individual's inclination towards or against using a product. In the context of technology, attitude towards application signifies users' assessment of their interest in using the technology.

Figure 3. Attitude toward using technology.

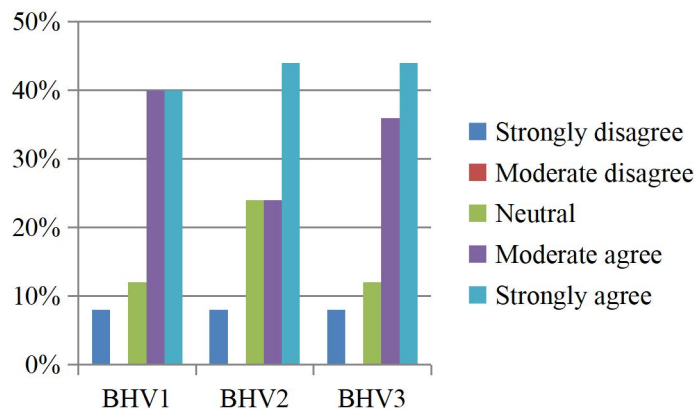


Referring to Figure 3, it was found that 48% quite agreed, 28% strongly agreed, 16% were neutral, and 8% strongly disagreed with the idea of using Schoology for English practice. In the subsequent statement, 52% quite agreed, 36% strongly agreed, 4% were neutral, and 8% strongly disagreed regarding the notion that using Schoology is an enjoyable approach for learning tasks. These findings align with Bake et al.'s (2008) results, highlighting that most teachers are motivated to use technology when they feel comfortable with it.

The following statement gauged participants' enjoyment in using Schoology for their tasks, with 44% expressing enjoyment, 36% quite agreeing, 12% neutral, and 8% strongly disliking Schoology's usability. Moreover, satisfaction in using Schoology for tasks indicated that 40% strongly agreed, 36% quite agreed, 16% were neutral, and 8% expressed strong dissatisfaction. The data in Figure 3 suggests that participants' attitudes toward applying Schoology fall within positive criteria. Teachers who frequently engage with technology in their teaching activities tend to be more proficient and prepared to utilize computer technology (Bordbar, 2010).

The final indicator examined to assess Schoology's acceptance in learning is depicted in Figure 4. Behavioral intention to use, as described by Davis (1989), indicates the tendency to continue using a technology. This intention can be measured by their attitude and interest in the technology, such as the inclination to increase advocacy, facilitate usage, and persuade others to use the technology.

Figure 4. Behavioral intention to use.



According to Figure 4, 40% of participants strongly agreed, 40% agreed sufficiently, 12% were neutral, and 8% strongly disagreed with the assertion that they will regularly use Schoology in the future. In the following statement, 44% strongly agreed, 24% agreed sufficiently, 24% were neutral, while 8% strongly disagreed, expressing Schoology will be one of their preferred technologies for work. In the third statement, 44% strongly agreed, 36% quite agreed, 12% were neutral, and 8% disagreed with the idea of integrating Schoology into future job roles.

The data from Figure 4 suggests participants display highly positive behavior in employing Schoology for their learning activities. This aligns with Domingo & Gargante's (2016) assertion that teachers are more likely to utilize technology in the classroom if they perceive it positively. Conversely, teachers tend to avoid technology if their experience is plagued with technical problems (Anderson & Groulx, 2015; Blackwell et al., 2014).

Besides utilizing a closed questionnaire, as demonstrated in various tables and figures above, this study incorporated an open questionnaire to address problems encountered when using Schoology in English learning, aiming for comprehensive insights. From the questionnaire responses, it was revealed that out of 25 participants, 5 (20%) encountered no issues at all while using this Learning Management System (LMS). This aligns with participants' high ease-of-use perception of Schoology, categorized as excellent, as depicted in Figure 2. Haneefa (2023) similarly found that students found the system user-friendly, facilitating enjoyable and timely learning experiences.

Among the participants, 7 (28%) faced challenges due to intermittent poor internet connections, while 5 (20%) encountered difficulties managing Schoology due to the platform's requirements regarding student numbers and necessary tasks to be completed before the semester. Additionally, 5 (20%) participants experienced complications attributed to insufficient or differing features within the Schoology interface across website and app versions, varied performance across computer models, and limited access to external sites like Google Drive. Furthermore, 2 (8%) participants highlighted the need for additional time to familiarize themselves with Schoology's features.

The study also delved into technology acceptance by teachers (both pre-service and in-service), focusing on the Technology Acceptance Model (TAM), as analyzed by Scherer, Siddiq, and Tondeur (2019). While teachers generally exhibited positive technology acceptance, there were significant deviations in certain core constructs and external variables, challenging established TAM beliefs. Age also emerged as a significant factor, with more experienced teachers, like those in Iran, displaying less inclination towards technology usage, while teachers from the millennial generation showcased better technological understanding and enthusiasm for technological advancements.

Additionally, one (4%) participant highlighted institutional shortcomings in providing resources for using the LMS, indicating insufficient endorsement by institutions to integrate education and technology effectively. Mohamed (2014) emphasized the gap between teacher willingness to use technology and institutional resource limitations. Literature further demonstrates that appropriate technology policies and perceived school support significantly impact teachers' technology use (Blackwell et al., 2014).

Several scholars, including Beller (2013), Flórez et al. (2017), Siddiq, Hatlevik, Olsen, Throndsen, & Scherer (2016), have advocated for educational systems integrating digital competence in the curriculum and fostering.

CONCLUSION

The integration of technology has transformed teaching strategies, offering diverse and engaging methods to enhance productivity and learning progress. The data illustrates that Schoology's perceived usability contributes to increased user performance and achievement. Moreover, the ease of use perception indicates that teachers can navigate Schoology with ease, displaying minimal issues. Users' positive attitudes reflect their keen interest in utilizing Schoology for learning purposes. Additionally, users express a strong behavioral intention to consistently employ Schoology in the future. Despite the favorable findings in technology acceptance, this study uncovered challenges encountered by Schoology users. Issues such as internet connectivity, difficulties comprehending technical interfaces across app and web platforms, lack of regular training, and insufficient institutional support were identified. This implies a lack of institutional endorsement for leveraging LMS as a tool for integrating education and technology to elevate educational quality through enhanced learning experiences with Schoology.

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