EXPLORING EDUCATION IN THE DIGITAL AGE: INNOVATIONS, INTERSECTIONS AND INSIGHTS

PREFACE

Dear esteemed readers and contributors,

It is with great pleasure and excitement that I extend a warm welcome to you all to this special edition of our journal, dedicated to exploring the diverse and dynamic themes shaping the landscape of education in the digital era. As we embark on this journey of discovery, each theme serves as a guiding beacon, illuminating the innovative intersections of technology and pedagogy.

Our first theme, Teaching based on Artificial Intelligence (AI), Machine Learning (ML), and the Internet of Things (IoT), sets the stage for our exploration by delving into the transformative potential of intelligent technologies in education. From personalized learning experiences to predictive analytics, AI, ML, and IoT hold the promise of revolutionizing traditional teaching methods and unlocking new pathways to knowledge acquisition.

Theme 2 invites us to immerse ourselves in the realm of 360 Learning, Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR). Here, we witness the fusion of physical and digital worlds, as learners embark on immersive journeys that transcend the confines of the traditional classroom. Through experiential learning and interactive simulations, VR, AR, and MR technologies redefine the boundaries of education, offering unprecedented opportunities for engagement and exploration.

In Theme 3, we explore the power of Collaborative Teaching, Global Learning, and innovative practices such as Gamification, Maker-Space, and Maker Lab initiatives. This theme underscores the importance of collaboration, cultural exchange, and hands-on experimentation in fostering creativity, critical thinking, and problem-solving skills among learners worldwide.

Theme 4 sheds light on the paradigm shift towards Open and Distance Learning (ODL), Self-Instructional Materials (SIM), and the utilization of Big Data Analytics in Learning. Here, we witness the democratization of education, as learners gain access to high-quality resources and personalized learning experiences irrespective of geographical constraints. Big Data analytics further enhance the educational landscape by providing insights into learner behavior and preferences, enabling educators to tailor instruction to individual needs.

In Theme 5, we explore the evolving role of Social Media Learning as a catalyst for knowledge dissemination, collaboration, and community building. From online forums to multimedia platforms, social media offers a dynamic space for peer-to-peer learning, digital literacy development, and the cultivation of virtual learning communities.

Theme 6 invites us to embrace Design Thinking for new Learning Delivery, emphasizing the importance of user- centered design principles in creating innovative and inclusive learning experiences. Through empathetic design, educators can reimagine learning environments that foster creativity, adaptability, and lifelong learning skills.

In Theme 7, we delve into Andragogy in technology-based learning, Instructional Design, and Best Practices in e-learning. This theme highlights the importance of learner-centered approaches, effective instructional design strategies, and the dissemination of evidence-based practices to optimize learning outcomes in the digital age.

Finally, Theme 8 explores the Development of e-learning systems, materials, and mobile technologies, including the emergence of MOOC-based mobile learning materials. Here, we witness the evolution of educational technologies, as mobile devices and online platforms redefine the boundaries of access and engagement in education.

As we navigate through these diverse themes, let us embrace the spirit of inquiry, collaboration, and innovation that defines our scholarly community. I extend my deepest gratitude to all the contributors who have enriched this journal with their insights and expertise. May this edition inspire new ideas, spark fruitful discussions, and contribute to the ongoing dialogue surrounding the future of education.

Thank you for your dedication and commitment to advancing the frontiers of knowledge in the field of education.

PROFESOR MADYA DR. ZAINUDDIN IBRAHIM
Guest Chief-Editor
Jornal Of Creative Practices in Language Learning and Teaching (CPLT)
Centre for Innovative Delivery and Learning Development
The Office of The Deputy Vice Chancellor (Academic and International)

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Theme 1: Teaching based on Artificial Intelligence (Ai)/ Machine Learning (ML)/ Internet of Things (iOT)

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Theme 7: Andragogy in technology-based learning/Technology in learning/Instructional design in learning/Best practices in e-learning

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EXPLORING EDUCATION IN THE DIGITAL AGE: INNOVATIONS, INTERSECTIONS AND INSIGHTS

Exploring Tertiary Education ESL Learners' Dependency on the Internet, Internet Sources, and Internet Source Reliability

Tg Nur Liyana Tengku Mohamed Fauzi
nurliyana2701@uitm.edu.my
Akademi Pengajian Bahasa
Universiti Teknologi MARA, Cawangan Kelantan, Malaysia

Siti Ainul Ayzan Ayub
ainul058@uitm.edu.my
Akademi Pengajian Bahasa
Universiti Teknologi MARA, Shah Alam, Malaysia

Wan Nazihah Wan Mohamed
wnazihah@uitm.edu.my
Akademi Pengajian Bahasa
Universiti Teknologi MARA, Cawangan Kelantan, Malaysia

Mimi Mazlina Mohamad*
mimi782@uitm.edu.my
Akademi Pengajian Bahasa
Universiti Teknologi MARA, Cawangan Kelantan, Malaysia

Corresponding author*

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ABSTRACT

This study focuses on Malaysian ESL learners in a public college and aims to investigate the learners' reliance on the Internet, the availability of Internet sources and the reliability of Internet sources. Data for the study were collected using a questionnaire that included items from two sources: a study on students' dependence on Internet sources and Online Student Engagement (OSE). A Google form was used to avoid missing values. A total of 101 responses were collected from the current semester's English writing course. The study shows that while most respondents spend an inordinate amount of time online (M=5.43; SD=1.344), they also rely on the Internet for decision making (M=5; SD=1.442). The majority tend to validate online information (M=4.66; highest M=5.69). Participants prefer authorized content (M=5.61) and reputable domains (M=5.53). Preferences and reliance on internet sources show consistent responses (SD range: 1.13-1.77), emphasizing the need to verify the accuracy of information. In conclusion, this study provides valuable insights into the Internet usage behavior of Malaysian ESL learners in a public college. The comprehensive examination of dependency, source availability and reliability underscores the multifaceted role of the Internet in their academic endeavors. The findings highlight the importance of ensuring the accuracy of information and the impact this has on improving ESL learners' learning strategies. Future research could further explore the effectiveness of interventions to minimize excessive Internet use while maximizing the positive impact on language learning outcomes.

Keywords: Malaysian ESL, Internet dependency, source reliability, accuracy validation, learning strategies

INTRODUCTION

As a second language in Malaysia, English holds significant importance in various fields such as business, education and government and plays a central role in communication and career advancement. However, Malaysian ESL (English as a Second Language) learners encounter a variety of challenges in their pursuit of English proficiency, such as limited experience, low confidence and inadequate language skills. The Malaysian government has recognized the important role of English and has taken several initiatives to improve the teaching of English.

Over time, the teaching of English has evolved significantly. In the age of digitalization, the internet has become an indispensable tool for language learners, providing access to a wealth of information and resources. Language learners in Malaysia can now benefit from a range of online platforms, including courses, language exchange programs and language learning apps. While the Internet holds immense potential to improve language skills, learners face the challenge of determining the reliability and credibility of online sources. A meta-analysis and review of studies on online learning conducted by Means et al. (2013) concluded that online learning can effectively support language acquisition and highlights the importance of evaluating the quality of online resources. Al Rawashdeh et al. (2021) emphasized the value of online learning tools and highlighted the need to consider the students' perspective in the educational process. There is a

lack of knowledge about the factors that contribute to the dependence of ESL learners in tertiary education on the Internet, Internet sources, and the reliability of Internet sources. For this reason, the study aims to investigate the dependence of ESL learners in tertiary education on the Internet, the types of Internet sources, and the reliability of Internet sources. The study also aims to develop strategies to help tertiary learners become more critical consumers of Internet resources and use the Internet and Internet resources more effectively in their language learning.

The following research questions addressed in this study are:

i. What is the extent of Malaysian ESL learners' dependency on the internet for language learning?
ii. What types of internet sources do Malaysian ESL learners use for language learning?
iii. How reliable are the internet sources used by Malaysian ESL learners for language learning?

Based on the research questions, the objectives of the study are as follows:

i. To explore the dependency of Malaysian ESL learners on the internet for language learning.
ii. To investigate the types of internet sources used by Malaysian ESL learners for language learning.
iii. To examine the reliability of the internet sources used by Malaysian ESL learners for language learning.

Significance of the Study

The study is significant in that it highlights the growing concern about the dependence of ESL learners in tertiary education on the Internet and Internet resources while providing insights into how language learners can use the Internet more effectively for their language learning. The study will contribute to the understanding of ESL learners' dependence on the Internet, Internet resources and the reliability of Internet resources in tertiary education. The findings and results of this study will be of great help to educational practitioners in developing strategies involving the best types of Internet sources and activities to help learners become better language learners by using the Internet more effectively. The importance of the study is highlighted in the "Results" and "Discussion" sections, where the researchers thoroughly analyze the data they collected and present relevant and important findings. The researchers refer to other published work, compare their results with those of others and highlight the most important aspects of their findings. They explain why and how their result(s) make a positive contribution to or influence their field.

LITERATURE REVIEW

The use of the Internet in foreign language learning has become more and more prevalent in recent years (Wang et al., 2022). This is because these digital technologies have influenced our lives. The

presence of these technologies has inevitably changed the way education is delivered. Online learning and blended learning have proven to be effective approaches to language learning (Sanako, 2022). The incorporation of these modern technologies into everyday work has also enabled the development of new approaches to teaching and learning (Nortvig et al., 2018). Nevertheless, there are issues and growing concerns regarding the use of the Internet in ESL learning that concern both teachers and learners. Materials found on the Internet can be an invaluable source of quality input that learners need for language acquisition (Sanako, 2022). However, the reliability of internet sources can be a challenge as it can be difficult for learners to distinguish between credible and non-credible sources (Wang et al., 2022). Furthermore, while online learning allows for more flexible access to instruction (Means et al., 2013), this type of digital learning can be challenging for learners who lack self-discipline and motivation (Sanako, 2022). Furthermore, the use of digital technologies in education can raise concerns about privacy, security and the potential of technology to replace human teachers (Nortvig et al., 2018).

Another benefit of using the internet in language learning is access to authentic language materials that can help learners improve their language skills, such as videos, podcasts and news articles. Online learning and blended learning also offer learners more flexibility and convenience, allowing them to learn at their own pace and on their own schedule (Ilin, 2022). This can be particularly beneficial for learners who have busy schedules or live in remote areas. In addition, the internet can support the development of critical thinking skills by giving learners the opportunity to evaluate the reliability of internet sources. This is an important skill for language learners to develop as it can help them become a more critical consumer of information (Ilin, 2022).

On the other hand, there are some challenges that need to be addressed, such as the learning environment where challenges such as distractions at home, noise and limitations of learning space and facilities are common for some students in many developing countries (Barrot et al., 2021). Even when lessons are thoroughly planned and the internet is well integrated, these challenges can make it difficult for learners to focus on their studies and negatively impact their learning outcomes. Apart from this, technology use and student competency are also common challenges when integrating the internet into ESL classes (Barrot et al., 2021). These include issues such as poor internet connection, lack of access to devices, and difficulty navigating online platforms. Learners may also be at risk of data breaches and cyber-attacks as they navigate the digital land.

Although Internet use has become an essential part of daily life, including education, overreliance on the Internet and Internet sources among ESL learners is a growing concern for educators due to the uncertain reliability and credibility of Internet sources. Numerous factors contribute to ESL learners' reliance on the Internet. Researchers such as Nortvig et al. (2018) investigated the factors that influence students' learning experiences in various online formats in higher education. The study found that students' motivation plays an important role in their use of the internet for learning, as those who are more motivated to learn and engage in online activities are more likely to rely on the internet for their learning needs. In addition, the study also highlighted the importance of self-regulation for students' internet addiction. Self-regulation refers to students who were able to manage their time effectively, set goals and monitor their progress. On the other hand, students who lack self-regulation skills may struggle to navigate online

platforms and use digital tools effectively, resulting in less reliance on the internet for learning. In addition to motivation and self-regulation, students' learning styles also influence their internet dependency. For example, students with a preference for visual learning may have relied more on online resources such as videos and interactive tutorials, while students with a preference for auditory learning may have favoured online discussions and audio recordings.

Kedia and Mishra (2023) examined the factors that influence the effectiveness of online learning among university students. The study found that factors such as self-efficacy, motivation, and learning styles influence students' effectiveness in online learning. The findings of this study are consistent with the factors identified in the study by Nortvig et al. (2018) and emphasise the importance of motivation and learning styles in shaping students' Internet addiction for educational purposes.

In another study, Hoang and Hoang (2022) investigated online learning readiness (OLR) by examining socioeconomic aspects, internal and external influences, and behavioural factors related to online education. The aim of the study was to investigate the factors that influence OLR among university students and to examine the relationship between the OLR dimensions and students' intention to use online learning. Interestingly, it was found that there is a positive relationship between students' OLR dimensions and their intention to use online learning. This suggests that students with higher OLR scores are more likely to have a positive attitude towards online learning and are more willing to engage in online learning activities. This relationship suggests that motivation and engagement with online learning resources are the factors that contribute to ESL students' Internet addiction.

Internet Learning Experience

The Internet offers learners comprehensive access to a wealth of information and resources. A literature review conducted by Cao (2001) highlights the benefits of using the Internet in ESL classes and emphasises its central role in improving students' language skills and knowledge. One of the most notable benefits is the increased access to English language literature, including a wide range of books, articles and various resources that contribute significantly to the improvement of language skills. In addition, the Internet allows ESL learners to cultivate critical reading and writing skills that enable them to effectively evaluate and analyse information from various sources. This medium also has the potential to increase students' motivation to learn by providing them with interactive learning opportunities. Most importantly, the Internet can be used to address the unique learning needs of ESL learners and provide them with personalised and adaptive learning programmes tailored to their specific requirements.

ESL learners use different types of internet resources to improve their language skills. A study by Albiladi (2020) suggests that interactive visual aids and access to lessons that students can follow at their own pace enhance the learning of ELLs. Teachers can use digital resources to create learning experiences that support ELLs with fun, engaging tools that help them review and build vocabulary and literacy skills. According to another study by Wang et al. (2022), students who primarily take online courses spend more time using tools and social media than students who

primarily take face-to-face classes. A study by Al Arif (2019) investigated the use of social media for English language learning among EFL students. The study found that social media can be an effective tool to enhance language learning and promote communication among ELLs. The study suggests that social media can provide ELLs with the opportunity to practise their language skills in real-life contexts and interact with native speakers.

Meanwhile, the reliability of Internet sources is a problem for educators. To illustrate, Cao (2001) emphasized the importance of evaluating the reliability of Internet sources. The study suggested that educators should teach students how to evaluate the credibility of Internet sources and use reliable sources to improve their language skills and knowledge. Another study by Sanchez et al. (2006) examined the effectiveness with which students can judge the reliability of sources when conducting Internet research. The study found that learners need guidance to evaluate Internet sources. The study suggests that educators should teach students how to evaluate the credibility of Internet sources by giving them explicit instruction and training them to evaluate the reliability of Internet sources. Overall, the reliability of Internet sources is an issue for educators, and it is important to teach ESL learners how to evaluate the credibility of Internet sources.

Challenges in Online ESL Learning

While online learning can be effective for ESL learners, it also presents some challenges. A study by Al Rawashdeh et al. (2021) investigated students' views on the advantages and disadvantages of e-learning in higher education. The study found that online learning can be beneficial for many learners, but also presents challenges, such as the lack of face-to-face interaction, the need for self-discipline and the difficulty of accessing reliable sources of information. The study suggests that teachers should explicitly guide and practise the credibility of Internet sources to help students improve their research skills.

Another obvious challenge in online learning for ESL learners is the need for technological literacy. ESL learners may have difficulty navigating online platforms and using digital tools effectively. A review paper by Haleem et al. (2022) highlights the importance of understanding the role of digital technologies in education. The study suggests that educators should provide students with the necessary skills and resources to use digital technologies effectively. The study emphasises the importance of digital literacy in online learning and suggests that educators should provide students with the necessary support to develop these skills. Onyema et al. (2023) confirm that the use of technology, digital skills and flexibility are essential for online learning. The study also emphasises that educators should provide students with the necessary support and resources to help them adapt to online learning and bridge the digital divide between learners.

The literature on online learning for ESL learners aligns with previous research that has emphasised the effectiveness of online learning in improving language learning and fostering communication among ELLs. A systematic literature review by Johnson et al. (2022) on online instruction in K-12 education in the United States found that online instruction can be effective when it is carefully designed and implemented. The study identified several factors that contribute to the effectiveness of online instruction, including the use of interactive and engaging materials,

the provision of timely feedback, and the use of collaborative learning activities.

METHODOLOGY

The research design used for this study was a cross-sectional survey. The study population consisted of ESL learners who were enrolled in English writing classes in the current semester, and the participants were randomly selected. Random sampling was used to select the participants. The inclusion criteria included ESL learners who were actively enrolled in the English writing course, while the exclusion criteria were for those who were not currently enrolled in the course. Considering that the total population of students enrolled in the targeted English writing course was 185, a sample size of 101 participants was deemed appropriate for this study. In collecting the data, the questionnaire was administered to the participants during regular class sessions. A Google form was used that was configured to require respondents to complete each section before moving on to the next, effectively avoiding missing values in the data collected. In addition, the questionnaire was designed to be anonymous to ensure confidentiality. Twenty-five items measuring dependence on the Internet (9 items), type of Internet sources (10 items), and reliability of Internet sources (6 items) were taken from two main sources: a study on dependence on Internet resources and online student engagement (OSE). Table 1 shows the items for each factor. Data analysis was conducted using SPSS and involved the application of descriptive statistics. Mean comparisons were used to assess the differences in the mean scores of the three factors.

Table 1. Indicators Measuring Dependency, Types, and Reliability of the Internet Sources

Dependency on the Internet	
DI1	I find that I stay online longer than I intended.
DI2	I fear that life without the Internet would be boring, empty, and joyless.
DI3	I participate less in activities that I once enjoyed because I am happier online.
DI4	I use the Internet to guide me in my decisions and perspective.
DI5	I choose to spend more time online than going out with others.
DI6	I have Internet sessions lasting all day or all night making it tiresome to do other things.
DI7	I tried multiple attempts to reduce Internet use but failed.
DI8	I find myself anticipating when I will go online again.
DI9	I tend to neglect my other important responsibilities when I am online (e.g., school work, household tasks).
Types of Internet sources	
TIS1	I make use of search engines for my English assignments (e.g., Google, Yahoo, Bing)
TIS2	I make use of the online library database for my English assignments.
TIS3	I make use of e-books for my English assignments.

TIS4	I make use of websites for my English assignments (e.g., YouTube, Wikipedia, Duolingo).
TIS5	I make use of e-journals for my English assignments.
TIS6	I make use of e-newspapers for my English assignments.
TIS7	I make use of discussion forums for my English assignments (e.g., UFuture, Teams, Google Classroom).
TIS8	I use the images on the web page for my English assignments.
TIS9	I use the audio files on the web page for my English assignments.
TIS10	I use information from blogs for my English assignments.

Reliability of the Internet sources

RIS1	I check the accuracy of the information that I have accessed through Internet sources.
RIS2	I am confident in the accuracy of the information on the Internet.
RIS3	I choose reliable Internet addresses for my assignments (e.g., "gov" or "edu" domain suffixes).
RIS4	I select recent and up-to-date sources for my assignments.
RIS5	I ensure that the documents accessed from the Internet have an author.
RIS6	I believe that information from blogs can be used for my assignments.

DATA ANALYSIS

Dependency on the Internet

Table 2 shows the results of the mean value analysis of the items that measure dependence on the Internet. Based on the mean scores recorded, the majority of respondents are guilty of spending too much time online (M=5.43; SD=1.344). Although they stay online longer than intended, many state that they use the Internet to help them make decisions (M=5; SD=1.442). On the other hand, only a minority neglect their other important responsibilities when they are online (M=3.34; 1.774). For the answers on internet addiction, where the mean values are between 3.34 and 5.43, a standard deviation between 1.34 and 1.77 indicates that the answers are relatively uniform and not widely dispersed. This indicates that the majority of respondents are relatively close to the mean and their answers vary less.

Table 2. Dependency on the Internet

	N	Min	Max	Mean	SD
DI1	101	1	7	5.43	1.344
DI4	101	1	7	5.00	1.442
DI2	101	1	7	4.83	1.456
DI5	101	1	7	3.98	1.726

DI8	101	1	7	3.96	1.503
DI7	101	1	7	3.92	1.677
DI6	101	1	7	3.66	1.551
DI3	101	1	7	3.53	1.507
DI9	101	1	7	3.34	1.774
Valid N (listwise)	101				

Types of Internet Sources

The analysis of the types of internet sources shows that the three most important online sources for ESL learners are search engines such as Google, Yahoo and Bing, followed by websites such as YouTube and Wikipedia and online forums/discussion platforms such as the university Learning Management System (LMS), Microsoft Teams and Google Classroom (M=5.86, 5.66 and 5.60 respectively). In contrast, the e-newspaper is selected as the least used source for English assignments (M=4.12). In relation to the type of internet responses, where the mean values are between 4.12 and 5.86, a standard deviation between 1.13 and 1.68 indicates that the responses are relatively consistent and not widely dispersed, which also suggests that there is less variation in the responses.

Table 3. Types of Internet Sources

	N	Min	Max	Mean	SD
TIS1	101	2	7	5.86	1.192
TIS4	101	2	7	5.66	1.134
TIS7	101	1	7	5.60	1.327
TIS2	101	1	7	4.93	1.451
TIS8	101	1	7	4.88	1.525
TIS10	101	1	7	4.68	1.581
TIS5	101	1	7	4.63	1.481
TIS3	101	1	7	4.59	1.387
TIS9	101	1	7	4.57	1.551
TIS6	101	1	7	4.12	1.681
Valid N (listwise)	101				

Reliability of Internet Sources

Although learners rely on internet sources, only a minority of them show confidence in the accuracy of online information, as shown by a mean score of 4.66. This coincides with the highest

mean of 5.69, which means that the majority tends to check the accuracy of information obtained from internet sources. A notable proportion of participants prefer documents from the Internet that are authored by an author (M=5.61) and from websites with reputable domain extensions such as "gov" or "edu" (M=5.53). Similar to the dependence on the Internet and the type of Internet, relatively low standard deviations were also found for the reliability of Internet sources. With mean values between 4.66 and 5.69 and a standard deviation between 1.12 and 1.47, this indicates that the answers are relatively consistent and do not vary greatly.

Table 4. Reliability of Internet Sources

	N	Min	Max	Mean	SD
RIS1	101	1	7	5.69	1.214
RIS5	101	2	7	5.61	1.122
RIS3	101	1	7	5.53	1.254
RIS4	101	2	7	5.40	1.201
RIS6	101	1	7	4.81	1.475
RIS2	101	1	7	4.66	1.275
Valid N (listwise)	101				

DISCUSSION OF FINDINGS

The results of the analysis show that the majority of ESL learners in tertiary education spend too much time on the Internet, which indicates a dependence on the Internet. This is consistent with previous studies on internet addiction, which suggest that excessive internet use can have negative effects on individuals' physical and mental health, social relationships and academic performance (Kumar & Mondal, 2018). However, the analysis also shows that many respondents use the internet as a decision-making tool, suggesting that the internet can be a valuable tool for language learners (Kanellopoulou & Giannakoulopoulos, 2021; Kayri & Gunuc, 2010). With the help of various search engines available online, such as Google, Yahoo, and Bing, which have been shown to be the most important online sources for ESL learners, learners gain access to a variety of resources and activities that help them improve their English language skills. Internet sources provide up-to-date information and allow learners to get accurate information from various websites. The availability of various search engines can provide learners with a wider reach.

In language teaching and learning, researchers have found that students in Internet-based environments are able to actively engage in the learning process as it is more student-centred (Kanellopoulou & Giannakoulopoulos, 2021). Therefore, the university's learning management system (LMS), Microsoft Teams and Google Classroom are among the most commonly used internet-based tools by students. This is in line with previous studies on the benefits and challenges of the Internet in foreign language teaching, which suggest that the Internet can be used as a

teaching and learning tool.

Although learners rely on Internet sources, only a minority of them show confidence in the accuracy of online information. This is in line with previous studies on Internet addiction, which suggest that Internet addiction can cause mental disorders and social problems (Kumar & Mondal, 2018). However, the analysis also shows that the majority tend to verify the accuracy of information obtained from internet sources, suggesting that language learners are aware of the importance of evaluating the credibility of internet sources. The analysis also shows that a notable proportion of participants express a preference for selecting documents from the Internet that come from authors and from websites with reputable domain extensions such as "gov" or "edu". This is in line with previous studies on evaluating information from the Internet, which suggest that it is important for language learners to become critical consumers of Internet sources (Kayri & Gunuc, 2010).

CONCLUSION AND RECOMMENDATIONS

Overall, the results of the analysis suggest that the Internet can be a valuable tool for language learners, but it is important to consider the quality of online resources and develop strategies to help learners become more critical consumers of Internet resources. For example, a study by Mustafa et al. (2019) found that vocabulary e-learning can effectively improve the reading skills of ELLs. The study found that ELLs who used e-learning tools to learn vocabulary improved their reading skills and reading comprehension. Similarly, a study by Solak and Cakir (2015) found that e-learners in Turkey use different language learning strategies to improve their language skills.

In principle, while online learning can be an effective tool for improving language learning and fostering communication among ESL learners, educators should consider the challenges and limitations of online learning. The literature suggests that providing students with the necessary support and resources, using interactive and engaging materials, and carefully designing and implementing online learning programs can increase the effectiveness of online instruction. While the findings of this study are consistent with previous research on the advantages and disadvantages of using the Internet for language learning, the analysis also highlights the need for language teachers to consider the students' perspective and explore other types of Internet resources that may be useful for language learning.

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Conflict of Interest

We confirm that the article is the original work of the authors. The article has not been submitted for publication nor has it been published elsewhere in whole or in part. We attest that all authors have made a substantial contribution to the work, the validity and legitimacy of the data and its interpretation for submission to this journal.
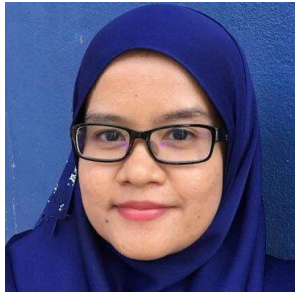
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Authors' Contributions

Tg Nur Liyana prepared the research plan, conducted the data collection and analysis, and took the lead in writing the manuscript. Dr. Wan Nazihah was involved in the development of the questionnaire and helped finalise the manuscript. Siti Ainul Ayzan wrote the literature review and helped finalise the manuscript. Mimi Mazlina wrote the literature review, helped finalise the manuscript and did the formatting.

About the Authors

	Tg Nur Liyana Binti Tengku Mohamed Fauzi is a Senior Lecturer at the Academy of Language Studies, Universiti Teknologi MARA Cawangan Kelantan. She has published in Q2 scopus, ERA, MyCite and other indexed journals in the field of ESL teaching, learning and methodology. Her research interests also include psycholinguistics and language learning strategies. She earned her PhD in the field of applied language studies, focusing on the influence of different types of exposure to ESL and learners' memory strategies on language proficiency.
	Siti Ainul Ayzan binti Ayub is a lecturer at the Academy of Language Studies, Universiti Teknologi MARA Shah Alam. She has published in a number of journals in the field of ESL teaching, learning and methodology. Her research interests also include sociolinguistics and psycholinguistics.
	Dr. Wan Nazihah Wan Mohamed is a senior lecturer of English at Universiti Teknologi MARA Cawangan Kelantan. In collaboration with other academics, she has published and presented more than 30 papers in various fields. Her research interests include technology acceptance, mobile technology, English language, linguistics and education.
	Mimi Mazlina binti Mohamad, the corresponding author, is a lecturer of English language at Akademi Pengajian Bahasa, Universiti Teknologi MARA (UiTM) Cawangan Kelantan. She has been a member of the teaching staff since 2010. She holds a Bachelor's degree in English Language and Literature (Hons) from the International Islamic University of Malaysia (IIUM) and a Master's degree in Applied Linguistics from Universiti Utara Malaysia (UUM). Her research interests lie in the areas of language learning strategies and psycholinguistics.