The Impact of Technology on English Language Education in Indonesia: A Theoretical Review

Alek[1]

*Corespondence :
Email : alek@uinjkt.ac.id

Authors Affiliation:

[1]Universitas Islam Negeri Syarif Hidayatullah Jakarta, *Indonesia*

Abstract

Recently, there has been a significant change in English language education in Indonesia, particularly due to the widespread impact of technology. This theoretical overview article presents an examination of the various impacts of technology on English language education in the Indonesian context. This theoretical analysis article aims to explain, classify, and examine the crucial aspects related to the positive and negative impacts of using technology in education and its integration of technology in English language education in the Indonesian context. It considers various theoretical viewpoints, highlighting the similarities and differences between them. It provides a valuable resource for educators, policy makers and researchers in the Indonesian educational landscape, as it explores the theoretical underpinnings of the impact of technology on English language education. In addition, it highlights the ongoing adaptation of the education system to technological advances. A synthesis of the theoretical frameworks presented in order to provide an understanding of the transformations that have, are, and will take place in the field of English education in Indonesia. In addition, this article is also expected to provide valuable insights for further investigation, especially through future research related to the progress and development of the use and integration of technology in the field of English as it is rapidly developing.

Abstrak

Dewasa ini, telah terjadi pergeseran mendasar dalam pendidikan bahasa Inggris di Indonesia, terutama dalam kaitannya dengan dampak teknologi yang semakin meluas. Makalah tinjauan teoretis ini menyajikan sebuah kajian mengenai beragam dampak teknologi terhadap pendidikan bahasa Inggris konteks Indonesia. Artikel analisis teoretis ini bertujuan menjelaskan dan mengklasifikasikan dan mengkaji aspek-aspek utama terkait dampak dan pengaruh positif dan negative atas penggunaan teknologi dalam pendidikan dan integrasi teknologi dalam pendidikan bahasa Inggris dalam konteks Indonesia. Kajian ini mempertimbangkan berbagai sudut pandang teoretis, menyoroti kesamaan dan perbedaan di antara mereka. Kajian ini menyediakan sumber daya yang berharga bagi para pendidik, pembuat kebijakan, dan peneliti dalam lanskap pendidikan di Indonesia, karena kajian ini mengeksplorasi dasar-dasar teoretis dari dampak teknologi terhadap pendidikan bahasa Inggris. Di samping itu, artikelini menyoroti adaptasi sistem pendidikan yang sedang berlangsung terhadap kemajuan teknologi. Sintesis dari kerangka teori yang disajikan dalam untuk memberi pemahaman tentang transformasi yang telah, sedang, dan akan berlangsung di bidang pendidikan bahasa Inggris di Indonesia. Selain itu, artikel ini juga diharapkan memberi wawasan yang berharga untuk upaya penelisuran lebih jauh, terutama melalui penelitian di masa akan datang terkait kemajuan dan perkembangan penggunaan dan integrasi teknologi dalam bidang bahasa Inggris sebagaimana yang berkembang pesat ini

INTRODUCTION

The incorporation of technology into the field of education has had a profound impact on a global scale, and Indonesia is not an exception to this trend (Crăciun, 2019; Gravett & Rensburg, 2010; Nielen et al., 2018). In recent years, the field of English language education in Indonesia has witnessed notable advancements as a result of technological integration, leading to a transformation in the methods and approaches employed for teaching and learning English. This theoretical review, entitled "The Impact of Technology on English Education in Indonesia," undertakes an endeavor to offer a thorough analysis of this dynamic terrain (Altun & Ahmad, 2021, 2021). The significance of comprehending the impact of technology in the context of English education in Indonesian context in a globalized society cannot be overstated (Al-Shaye, 2021; Limbong, 2017b).

In spite of the increasing impact of technology on English education in Indonesia, a significant gap is evident within the current body of literature (Limbong, 2017b, 2017a; Rosmaladewi et al., 2020). The existing body of research tends to prioritize pragmatic implementations and results, leaving a notable scarcity of comprehensive theoretical evaluations that offer a consolidated viewpoint on the influence of technology on English education. The purpose of this review is to address the existing knowledge gap by providing an in-depth theoretical analysis of the topic. It seeks to elucidate the fundamental principles and pedagogical strategies that inform the integration of technology in the context of English language instruction and acquisition (Hamat & Amran, 2021; Saeedakhtar et al., 2021).

Moreover, the salient feature of this review resides in its all-encompassing methodology aimed at comprehending the ramifications of technology within the Indonesian milieu (Lin et al., 2016; A Merç, 2015; Ali Merç, 2015; Rokhayati & Widiyanti, 2022; Ur Rahman, 2021). Instead of offering a superficial summary of technological tools and their practical uses, this review delves into the theoretical foundations, exploring the ways in which technology has transformed the dynamics of English language education, encompassing classroom methodologies and language evaluation (Bahari, 2020; Kabilan & Khan, 2012; Kamarul & Ahsan, 2012; Kleinsasser et al., 1995). Additionally, this study takes into account the sociocultural, linguistic, and educational factors that are unique to Indonesia, highlighting the importance of a comprehensive comprehension of the specific local environment. This paper serves as a theoretical review, providing an overview of current research and highlighting areas that require further investigation. It offers valuable insights for educators, policymakers, and researchers who aim to gain a comprehensive understanding of the dynamic relationship between technology and English education in Indonesia (Azkiyah & Mukminin, 2017; Limeranto & Subekti, 2021; Nurhabibah, A., Suryaman, M., & Utami, 2020; Zein, 2017).

However, the aforementioned review highlights the urgent necessity to comprehend the ramifications of the digital divide and equity within the specific context of Indonesia (Abduh, 2020, 2020). The utilization of technology in English language education presents potential prospects; however, it is imperative to acknowledge the existing inequalities in terms of access to digital resources and infrastructure, particularly in remote and underserved areas of Indonesia (Enterprises et al., 2022; König et al., 2020; Richards et al., 2020). This theoretical inquiry examines the aforementioned topics, highlighting a deficiency in the existing body of scholarly work regarding the fair incorporation of technology in the field of English education. Through an analysis of the ways in which technology can be utilized to overcome these disparities and guarantee comprehensive accessibility, the objective of this review is to make a valuable contribution towards establishing a fair and accessible English language education environment in Indonesia (Azkiyah & Mukminin, 2017; Limeranto & Subekti, 2021; Nurhabibah, A., Suryaman, M., & Utami, 2020; Zein, 2017).

Furthermore, this theoretical review primarily focuses on the increasing significance of digital literacy and 21st-century skills in the context of the Indonesian education system

(Arifuddin et al., 2021; Dalimunte & Pramoolsook, 2020; Rochmatul et al., 2020; Rosmaladewi et al., 2020). With the growing integration of technology in educational settings, students are not only able to enhance their English language proficiency, but also cultivate essential digital literacy skills (Alipour, 2020; Ling-Chin et al., 2023; Sun et al., 2021). This review investigates the impact of integrating technology in education on students' development of digital competency, thereby equipping them with the necessary skills for success in the contemporary job market (Almagarbeh, 2022; Simpson & Obdalova, 2014; Spiteri & Chang Rundgren, 2020). The review makes a valuable contribution to the current body of literature by emphasizing the significant impact that technology can have on both language education and the broader range of skills required for success in a digital society.

METHODS

This theoretical article review focuses on theoretical analysis with the aim of exploring, analyzing, and interpreting theories (Creswell, 2013; John W. Creswell, 2016), conceptual frameworks, or concepts related to the research topic (Al-Ahdal & Alharbi, 2021; Prasanna et al., 2021). The theoretical analysis research does not involve the collection of empirical data, as in qualitative or quantitative research, but it primarily focuses on understanding theories and concepts that support or explain the research topic, as well as some best practices that are relevant in the Indonesian context. The steps used in this theoretical analysis research include (1) Determination of the Research Topic; (2) Identification of various relevant concepts related to the research topic, including reputable published journal articles sought and obtained from various sources and other theoretical sources to support a strong theoretical understanding (Cui et al., 2020; Smits & Janssenswillen, 2020); (3) Organizing information and understanding the conceptual framework, and synthesizing it in the form of propositions as a state of the art concept; (4) Discussing several subtopics to provide more focus and direction; and (5) drawing conclusions and presenting their implications for future educational practices and serving as a foundation for further research or the development of understanding in the field of education (Patton, 2002).

RESULT AND DISCUSSION

A Glance of Indonesia

Indonesia, the largest archipelago in the world, is a land of captivating diversity. It offers a rich tapestry of cultures, landscapes, and traditions defining its unique identity. With over 17,000 islands scattered across the equator, this Southeast Asian nation boasts a striking array of geographical wonders (Partelow et al., 2023; Sulistiyo et al., 2017; Syahri Ramadona et al., 2022). From the stunning rainforests of Sumatra to the majestic volcanoes that adorn its landscapes, and the pristine beaches along its coastlines, Indonesia boasts an unblemished natural beauty that is truly awe-inspiring.

However, Indonesia's extraordinary quality extends beyond its landscapes to encompass its considerable cultural diversity (Ariana, 2016; Sutton, 2020). The nation reflects a coexistence of various ethnic groups, each bringing their own languages, traditions, and customs to the national tapestry. Bahasa Indonesia serves as the official language, acting as a linguistic bridge among the diverse communities. Nonetheless, Indonesia boasts a wealth of languages, with over 700 other languages spoken throughout the archipelago (Alek, 2022, 2019), highlighting the nation's abundant linguistic diversity (Ariana, 2016; Sutton, 2020).

Furthermore, Indonesia, typically classified as a developing nation, has demonstrated substantial enthusiasm for incorporating technology into different facets of its society (Elbahwashy, 2020; Makovskaya & Radjabzade, 2022). Starting from the modest origins of the

extensive archipelago, Indonesia's technological history unfolds as a progression of constant advancement that illuminates the nation's resilient character and unwavering drive to leverage the game-changing potential of technology (Djuwendah et al., 2021; Garbin Praničević, 2021; Ling-Chin et al., 2023). This process of technological evolution has made a lasting impact on vital sectors throughout Indonesia. The field of education has undergone a marked transformation, facilitated by technology that allows for wider accessibility to educational materials, online courses, and e-learning platforms. Concurrently, governmental services have progressed through the implementation of e-government initiatives, streamlining administrative procedures and facilitating transparency (Cheng et al., 2017; Wambugu, 2018; Wright et al., 2023). E-commerce and the emergence of innovative startups such as Gojek and Tokopedia have stimulated progress in the fields of commerce and entrepreneurship.

Realizing the nation's continuing advancement and growth through technology requires more unfinished work (Akinrinola, 2021; Faculty & Web, 2020; Saidi, 2020). This moment in Indonesia's history necessitates a steadfast commitment to technological progression and its prudent execution. Impending challenges demand prompt action. Cybersecurity concerns, the critical imperative to enhance digital literacy, and the assurance that technology advances all segments of society are significant issues (Sepulveda-Escobar & Morrison, 2020; Spiteri & Chang Rundgren, 2020; Univers & Sydney, 2020). Addressing these challenges, guaranteeing fair access, and building on past achievements are necessary in moving forward. Indonesia's technology history is a story of continuous evolution, resilience, and adaptability. The nation's effort to utilize technology in education, government, business, and entrepreneurial pursuits has led to significant outcomes. As Indonesia progresses, it intends to continue this revolutionary effort, striving to build a brighter technological future for its people and serve as a role model for other developing countries worldwide (Somekh et al., 2005; Xiaolei, 2022).

Why Technology is importance in Education?

Technology plays a critical role in education for several reasons. Firstly, it improves access to vast information and resources that are crucial for learning (Cheung et al., 2018; Hao et al., 2019; Learning & Issn, 2021). The internet, specifically, has transformed the approach to knowledge acquisition for both students and educators by enabling them to explore diverse subjects, access research materials, and keep abreast of the most recent developments in their fields. Access to information is essential for both traditional and online learners, as it provides them with abundant learning materials and opportunities to expand their knowledge (Alek & Nguyen, 2023; Arief et al., 2020).

Another critical element is personalized learning, as technology empowers educators to customize educational content according to students' individual abilities and learning rates (García & Sylvan, 2011). Adaptive learning software and online platforms adjust the difficulty and pace of lessons to provide a personalized educational experience. This caters to diverse learning styles and enhances comprehension, leading to better learning outcomes. Additionally, technology enhances educational engagement (Al-Shaye, 2021; Amer et al., 2022; Carrillo & Flores, 2020). Multimedia elements, interactive tools, and digital resources effectively draw students' attention, leading to a more enjoyable and productive learning experience. Educational technology encompasses a broad range of interactive features, comprising videos, simulations, and game-based lessons, which transform the classroom into an engaging environment, significantly improving students' understanding and retention of knowledge.

Technology plays a vital role in facilitating collaboration and communication in education (W. Wang, 2019). Online platforms, discussion boards, video conferencing, and collaboration tools promote interactions among students, teachers, and peers, allowing for effective group projects and enabling global connections (Alsowat, 2016; Rutten, 2019). These connections enrich the learning experience with diverse perspectives and contribute to a sense of belonging

to a larger educational community. Furthermore, technology improves efficiency and productivity in education (Al-Ahdal & Alharbi, 2021; Williams & Glass, 2019). Educators can utilize technology to simplify administrative tasks, grade management, and efficient creation and distribution of educational materials. The resultant time-saving benefits permit educators to concentrate on teaching and individual student interactions. Additionally, technology enhances the culture of ongoing education by providing online courses, webinars, and digital resources that empower individuals to pursue knowledge and acquire new skills continuously. In a fast-paced world, the aptitude to adapt and learn is essential for personal and professional growth (Braine, 2010; W. Chen, 2012; Hernández, 2022).

Technology also facilitates data analysis and evaluation, furnishing valuable insights into student performance (Setiawan et al., 2021; L. Wang, 2022). Educational technology can gather data on students' progress, which can then be analyzed to identify areas requiring additional support. This data-driven approach enables more efficient teaching strategies and targeted interventions, guaranteeing that students receive the necessary help to succeed.

Lastly, technology helps globalize education by breaking down geographic barriers, providing opportunities for students to connect with educators and peers from anywhere in the world (Gwillim & Karimova, 2021; Piet Van den Bossche et al., 2011). This objective approach fosters cultural awareness and understanding, equipping students for a globally interconnected society. Technology is of utmost importance in education due to its ability to improve information accessibility, support personalized learning, increase engagement, promote collaboration, enable remote learning, provide access to specialized resources, enhance efficiency, facilitate lifelong learning, support data-driven assessment, and contribute to a more globalized and interconnected educational environment (Daniel, 2020; Houlden & Veletsianos, 2022; Khalili, 2020). Embracing technology in education is crucial to equip students with the necessary skills and knowledge for the challenges and opportunities of the 21st century (Mutton, 2020a, 2020b). Objectivity is key in evaluating its effectiveness, and clear and concise language should be used when discussing its impact. It is essential to maintain conventional academic structure, including regular citations and correct formatting, to ensure a professional tone (Haghighi Irani et al., 2020; Irani et al., 2020). Avoiding biased language and sticking to precise word choice while maintaining grammatical correctness are also important.

The Positive Impact of Technology in Education

The integration of technology in education has had a significantly positive impact on the teaching and learning process (Alelaimat et al., 2020; Makovskaya & Radjabzade, 2022; Ur Rahman, 2021). One of the most crucial advantages is enhanced accessibility to educational resources. The Internet, in particular, has made a vast array of information and educational materials readily available to students and teachers. This access has eliminated barriers, allowing students to research a variety of subjects and access current information, regardless of location. The positive impact of technology on education is evident in the democratization of knowledge, making learning opportunities accessible to a wider and more diverse population. Personalized instruction is another key benefit of technology in education (Mahdi, 2018; Ur Rahman, 2021). Adaptive learning software, online platforms, and digital tools have the capacity to meet the unique needs and learning styles of individual students. These technologies can modify the level of difficulty and pace of instruction, guaranteeing that every student receives a customized educational encounter. Such an approach not only improves comprehension but also fosters self-directed learning, while enabling students to take charge of their education (Ghufron & Ermawati, 2018; Nor et al., 2012; I Xodabande, 2022; Ismail Xodabande & Atai, 2020).

Technology has transformed the classroom experience by offering interactive and engaging ways of learning. Multimedia features, interactive lessons, and digital resources

capture students' attention and enhance their learning outcomes. The use of videos, simulations, gamified lessons, and virtual labs has revolutionized the learning environment, offering students an interactive and delightful experience (Coiro & Dobler, 2007; Jazadi, 2023; Калабин & Корнеева, 2020). This increased engagement fosters critical thinking, creativity, and problem-solving skills in students, which in turn contributes to their well-rounded and independent learning. Furthermore, technology enhances collaboration and communication in education. Online platforms, video conferencing, discussion forums, and collaboration tools empower students to collaborate on projects, exchange ideas, and communicate with their peers and educators (R. Ahmed & Al-Kadi, 2021; Zhang, 2022). This not only improves teamwork and interpersonal skills but also cultivates a sense of belonging to a wider educational community. The beneficial influence of technology on education is evident in its support for global connections and diverse perspectives, equipping students with skills to thrive in an interconnected world (Verduzco Villaseñor et al., 2023; Wijaya, 2021).

Overall, technology has a multifaceted and transformative impact on education. It provides better access to information for both students and educators, granting access to resources and knowledge previously out of reach. Furthermore, technology enables personalized learning experiences to cater to the individual needs and preferences of students, which enhances comprehension and promotes self-directed learning (Carpenter & Linton, 2018; Cheung et al., 2018; Cummings et al., 2017). The ability of technology to engage learners through multimedia, interactive lessons, and digital resources makes education more dynamic and enjoyable. It also fosters critical thinking and problem-solving skills. Furthermore, technology promotes collaboration and communication, enabling students to work together, exchange ideas, and connect with peers globally. As a result, it cultivates essential interpersonal and cross-cultural skills. Ultimately, incorporating technology into education is crucial for equipping students with the skills and knowledge necessary to thrive in our constantly evolving and interconnected world. This technological integration enables students to become lifelong learners who are prepared for the opportunities and challenges of the 21st century (CRĂCIUN, 2019; Habibi et al., 2020).

Negative Impact of technology in Education

The integration of technology in education has yielded multiple benefits, but it has also introduced potential negative consequences that warrant careful consideration (Carpenter & Linton, 2018; Code et al., 2020; Kanno, 2021; Sun et al., 2021). One of the key concerns is the possibility of increased screen time and the health issues that can arise from it. As technology becomes increasingly ubiquitous in classrooms, students may spend excessive amounts of time in front of screens, which can result in issues such as digital eye strain, reduced physical activity, and an amplified risk of obesity (Cheung et al., 2018; Pritchard, 2009). The stationary nature of digital learning can have negative effects on the overall health and well-being of students (Carpenter & Linton, 2018; Cheung et al., 2018; Televantou et al., 2021).

The proliferation of smartphones and internet access within classrooms has resulted in a detrimental outcome for education, technology's potential to distract (Cheung et al., 2018). The abundance of social media, games, and non-educational content can sidetrack and hinder students' ability to concentrate on the material being taught, ultimately causing reduced learning outcomes (Hao et al., 2019; Mahdi, 2018). Teachers frequently utilize techniques to manage and alleviate such interruptions, which can prove to be a difficult aspect of incorporating technology (Elbahwashy, 2020; Makovskaya & Radjabzade, 2022).

Furthermore, technology can worsen educational disparities. The "digital divide" is created by uneven access to digital devices and high-speed internet, making it difficult for all students to have equal opportunities (Rodicio-García, 2020, 2020). Digital learning may not be fully accessible to students from underprivileged backgrounds who are lacking the necessary

resources, which may lead to unequal education outcomes. Bridging this gap will require coordinated efforts to ensure all students have fair access to technology and digital resources (Ali, 2020; L. Wang, 2022).

Lastly, there is a concern regarding data privacy and security. As more and more data is collected on students' activities, there is a risk of mishandling or misuse of this information. Protecting students' data from breaches and ensuring its responsible use remains an ongoing challenge in the digital education landscape (la Velle et al., 2020). It can be inferred that technology in education offers many advantages, it is important to recognize and address its negative impacts. These potential issues include possible health risks related to extended screen time, distractions that negatively impact learning, a potential increase in educational inequalities, and concerns over data privacy and security (Cheung et al., 2018; Pai et al., 2021). It is crucial to balance the benefits of educational technology with these challenges in order to fully leverage its potential in education.

Overcoming negative impact of technology

To overcome the negative effects of technology in education, especially on students, a thoughtful and proactive approach is necessary to address concerns and preserve the benefits of digital tools and resources (König et al., 2020; Richards et al., 2020). As technology remains a significant factor in education, educators, parents, and institutions must take strides to reduce its potential drawbacks. An essential aspect of this approach includes educating students about digital wellness. This involves educating individuals on how to balance their screen time with other activities, manage their online presence, and identify indications of digital addiction. Instructors can integrate digital wellness into the syllabus, encouraging self-awareness and responsible usage of technology (Ling-Chin et al., 2023; Saputra & Fauzi, 2022). By cultivating a healthy relationship with technology, students can navigate the digital realm without compromising their well-being.

Critical thinking skills are essential in the digital age. It is crucial to equip students with the ability to assess the credibility of the information available online, differentiate between educational content and distractions, and make informed decisions about their technology use (Ntshikila et al., 2022; Sabu & Vernandes, 2019; Singh & Marappan, 2020). Consequently, it is imperative to teach students to question the sources of information, think critically about online content, and develop a sense of digital discernment. By enhancing their critical thinking skills, students can better navigate the digital landscape and make informed decisions about the content they consume (Singh & Marappan, 2020). Establishing tech-free areas and times provides students with opportunities to disconnect from screens and engage in face-to-face communication and offline activities. Setting certain periods, such as mealtimes or bedtime, as tech-free can help students achieve a healthier balance between their digital and real-world experiences (Smith & Greene, 2013). These short breaks foster social interactions, physical activity, and opportunities for relaxation, ultimately contributing to the promotion of overall well-being (A. Ahmed & Morgan, 2021).

Individualized learning paths can be established using adaptive learning software, which customizes educational content and pacing to the needs of each student (C. L. Chen & Wu, 2020; Cheung et al., 2018; König et al., 2020). This method allows students to progress at their own rate and reduces feelings of frustration and discouragement. It caters to a range of learning styles and abilities, resulting in a more engaging and fulfilling educational experience. Efforts must be taken to guarantee fair access to technology and the internet for all learners to address the digital divide. This entails the provision of affordable or free devices, subsidizing internet expenses, and aiding schools in underserved areas to bridge the digital gap. It is crucial to promote equal educational outcomes by ensuring that all students have equal chances to benefit from technology (Pai et al., 2021).

Furthermore, to ensure data privacy and security, schools and institutions need to prioritize implementing strict data protection policies, securing online platforms, and educating students on safeguarding their information (Cosma, 2020). By taking these measures, student data can be protected from misuse or breaches, fostering a sense of confidence and trust in the digital learning environment. Additionally, parental involvement plays a crucial role in managing a child's technology use. Parents should remain aware of their child's online activity, establish achievable limits on screen time, and collaborate with teachers to promote a cohesive approach to technology in education (Adel et al., 2016; Basri, 2020; König et al., 2020; Tseng et al., 2019). A robust alliance between parents and educators guarantees that students receive uniform guidance and support in their digital pursuits.

It can be concluded that addressing the negative impact of technology on education, especially on learners, necessitates a comprehensive approach. This involves educating students on digital wellness, fostering critical thinking skills, creating technology-free zones, and implementing personalized learning paths (Abdurrahman et al., 2021; Murray, 2020; Putri et al., 2020). Additionally, it is crucial to tackle the digital divide, ensure data privacy and security, involve parents, and promote digital detox. By implementing these strategies, educational professionals and institutions can maximize the advantages of technology while ensuring the welfare and academic advancement of students (Arifuddin et al., 2021; Gao & Zhang, 2020; Goh & Sigala, 2020).

Best Practices of Using Technology in Indonesian Education Context

In the Indonesian education context, a range of technological best practices have emerged, enhancing education quality and promoting innovation. These practices illustrate the nation's commitment to leveraging the potential of technology for improving learning outcomes (Hao et al., 2019; Li, 2021; Zabidi et al., 2021). One noteworthy example is the widespread use of digital learning platforms and learning management systems such as Ruangguru and Quipper. These provide educators and students with digital spaces to access educational content, tasks, and evaluations, facilitating personalized and efficient learning experiences. Hybrid learning methods, which integrate traditional classroom teaching with digital resources, have gained support, especially in regions with limited access to quality education (Chan, 2021; Lestari et al., 2022; Wright et al., 2023). The proliferation of smartphones has led to an increase in mobile learning. Educational apps and websites, like Khan Academy Indonesia, enable students to learn using their mobile devices (Maher, 2020; Saputra & Fauzi, 2022). Professional development programs and teacher training have equipped educators with the digital literacy and teaching skills necessary to incorporate technology effectively into their teaching methods. As a result, students benefit from a more engaging learning environment. These guidelines demonstrate Indonesia's commitment to utilizing technology to offer easily accessible, high-quality education to its diverse student body.

1. Digital Learning Platforms: Many Indonesian schools and institutions have adopted digital learning platforms and learning management systems (LMS) (Ur Rahman, 2021; Voices et al., 2016). Platforms such as Ruangguru and Quipper allow teachers to upload educational content, assignments, and quizzes, rendering learning materials available to students beyond the classroom. These platforms also provide interactive features, progress tracking, and real-time feedback, encouraging personalized and effective learning experiences.

2. Blended Learning: The integration of traditional and online teaching methods is known as blended learning. Blended learning combines traditional classroom instruction with online resources and technology, allowing for remote access to educational materials and resources, particularly in areas with limited access to quality education (Alkhataba et al., 2018; Chaloupský et al., 2021). This approach has gained popularity in Indonesia, and EdTech companies such as Sekolah.mu have been influential in this field.

3. Online learning: Regarding mobile learning, given the widespread use of smartphones in Indonesia, it is considered a best practice. Educational applications and online platforms,

such as Khan Academy Indonesia, provide students with the ability to access educational material on their portable devices (Mahdi, 2018; Snodin, 2013). These educational resources cater to various learning styles and offer a versatile approach to learning at any time and anywhere

4. Teacher Training and Professional Development: The successful integration of technology necessitates well-prepared educators. Numerous schools and institutions in Indonesia have invested in training programs that aim to enhance their teachers' digital literacy and teaching abilities (Johnson & Golombek, 2020; Richards et al., 2020; Sutton, 2020). This not only guarantees that educators can proficiently employ technology in the classroom but also results in a more engaging learning environment that benefits learners.

5. Online Assessments and Examinations: The use of technology for assessments and examinations has escalated in Indonesia. Platforms for online assessments, such as UNBK (Ujian Nasional Berbasis Komputer), are utilized for conducting standardized national exams (Daniel, 2020; González-González et al., 2020; Nurwahidah et al., 2022). This aids in diminishing paper-based exams' administrative load and guarantees an impartial and clear evaluation process (Divayana et al., 2021; Wijayati et al., 2022).

6. Language learning applications, such as Duolingo, have become increasingly popular due to Indonesia's linguistic diversity (Abdallah, 2021; Challob et al., 2016; Rebecca L. Oxford, n.d.). These apps cater to students seeking to learn languages beyond their native tongue, allowing for more accessible and enjoyable language acquisition.

7. Open Educational Resources (OER): OER platforms provide free, high-quality educational materials, textbooks, and resources to support learning and teaching. In Indonesia, platforms such as Buku Pelajaran Digital (BPD) offer easily accessible and downloadable OER materials for educational purposes (Dubinko et al., 2021; Ntshikila et al., 2022; Stubbs, 2017).

These best practices demonstrate Indonesia's commitment to utilizing technology to enhance education and cater to the diverse needs of its students. Indonesian educators and institutions are striving to deliver quality education and broaden access to learning opportunities throughout the country by adopting cutting-edge digital solutions and advocating for technology integration (Habibi et al., 2020; Ali Merç, 2015; Wambugu, 2018; Wijayanto, 2020).

CONCLUSION, IMPLICATION, ANS SUGGESTION

The theoretical review on the impact of technology in English education in Indonesia emphasizes the crucial role of technology in shaping the country's educational landscape. The best practices and potential benefits outlined in this review showcase technology's capacity for transformation, such as improving language acquisition and expanding access to quality education (Makovskaya & Radjabzade, 2022; Ur Rahman, 2021). However, successful technology integration necessitates addressing various challenges, including equitable access and potential distractions. As Indonesia advances and innovates in educational approaches, the presented theoretical framework provides a basis for further research and practical implementation of technology-driven initiatives (Sundberg, 2019). By embracing the opportunities and addressing the challenges presented by technology in English education, Indonesia can further improve the quality of its language learning programs and ready its students for the demands of the digital age. The implications into educational practices will assist language learners of Indonesia in maximizing the potential of technology to improve competencies, performances in English education, promote innovation, and equip students for a more connected and digital world (Al-Ahdal & Alharbi, 2021; Eliyana & Ardiyansah, 2021; Kemaloglu & Bayyurt, 2022; Zakareya & Alahmad, 2019). Last but not least. Utilize various available technology and language learning applications to support language competence,

performance, and research skills in order to meet future challenges and achieve a brighter future.

References

Abdallah, M. M. S. (2021). *Computer-Assisted Language Learning (CALL) for 4th Year EFL Student Teachers Computer-Assisted*.

Abduh, A. (2020). Voices of english department students on multicultural values in an indonesian islamic higher education. *International Journal of Language Education*, *4*(3), 459–468. https://doi.org/10.26858/ijole.v4i3.17829

Abdurrahman, M. S., Halim, A. A., & Sharifah, O. (2021). Improving polytechnic students' high-order-thinking-skills through inquiry-based learning in mathematics classroom. *International Journal of Evaluation and Research in Education*, *10*(3), 976–983. https://doi.org/10.11591/IJERE.V10I3.21771

Adel, S. M. R., Davoudi, M., & Ramezanzadeh, A. (2016). A qualitative study of politeness strategies used by Iranian EFL learners in a class blog. *Iranian Journal of Language Teaching Research*, *4*(1), 47–62. https://files.eric.ed.gov/fulltext/EJ1127416.pdf

Ahmed, A., & Morgan, B. (2021). Postmemory and multilingual identities in English language teaching: a duoethnography. *Language Learning Journal*, *49*(4), 483–498. https://doi.org/10.1080/09571736.2021.1906301

Ahmed, R., & Al-Kadi, A. (2021). Online and face-to-face peer review in academic writing: Frequency and preferences. *Eurasian Journal of Applied Linguistics*, *7*(1), 169–201. https://doi.org/10.32601/ejal.911245

Akinrinlola, T. (2021). A Discursive Import of Suspects' Affirmative Responses in Police-Suspect Interaction in Ibadan, Nigeria. *Linguistik Online*, *106*(1), 3–18. https://doi.org/10.13092/lo.106.7504

Al-Ahdal, A. A. M. H., & Alharbi, M. A. (2021). MALL in Collaborative Learning as a Vocabulary-Enhancing Tool for EFL Learners: A Study Across Two Universities in Saudi Arabia. *SAGE Open*, *11*(1). https://doi.org/10.1177/2158244021999062

Al-Shaye, S. (2021). Digital storytelling for improving critical reading skills, critical thinking skills, and self-regulated learning skills. *Cypriot Journal of Educational Sciences*, *16*(4), 2049–2069. https://doi.org/10.18844/cjes.v16i4.6074

Alek. (2022). *Kata Kerja Bahasa Bima dan Penggunaanya Dalam Kalimat* (Samsudin (Ed.); 1st ed.). Jakarta: UIN Press. https://repository.uinjkt.ac.id/dspace/bitstream/123456789/59704/1/Buku Kata Kerja Bahasa Bima.pdf

Alek, A. (2019). The Cultural Significance in Greeting Practices in Belo Dialect of the Bima Language. *Register Journal*, *12*(2), 206–234. https://doi.org/10.18326/rgt.v12i2.206-234

Alek, & Nguyen, V.-T. (2023). Online systematic guided reading strategies to improve EFL s tudents' reading performance. *XLinguae*, *16*(2), 69–84. https://doi.org/10.18355/XL.2023.16.02.06

Alelaimat, A. M., Ihmeideh, F. M., & Alkhawaldeh, M. F. (2020). Preparing Preservice Teachers for Technology and Digital Media Integration: Implications for Early Childhood Teacher Education Programs. *International Journal of Early Childhood*, *52*(3), 299–317. https://doi.org/10.1007/s13158-020-00276-2

Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, *10*(3), 16. https://doi.org/10.5539/hes.v10n3p16

Alipour, P. (2020). A Comparative Study of Online Vs. Blended Learning on Vocabulary

Development Among Intermediate EFL Learners. *Cogent Education*, *7*(1). https://doi.org/10.1080/2331186X.2020.1857489

Alkhataba, E. H., Abdul-Hamid, S., & Bashir, I. (2018). Technology-Supported Online Writing: An Overview of Six Major Web 2.0 Tools for Collaborative-Online Writing. *Arab World English Journal*, *9*(1), 433–446. https://doi.org/10.24093/awej/vol9no1.30

Almagarbeh, B. (2022). Learners' Aptitude towards Using Digital Techniques in Learning EFL: Internet Discourse. *Journal of Practical Studies in Education*, *3*(2), 1–6. https://doi.org/10.46809/jpse.v3i2.42

Alsowat, H. (2016). An EFL flipped classroom teaching model: Effects on English language higher-order thinking skills, student engagement and satisfaction. *Journal of Education and Practice*, *7*(9), 108–121.

Altun, M., & Ahmad, H. K. (2021). The Use of Technology in English Language Teaching: A Literature Review. *International Journal of Social Sciences & Educational Studies*, *8*(1), 226–232. https://doi.org/10.23918/ijsses.v8i1p226

Amer, T. S., Al Musawi, A. S., & Muhammad, A. A. N. (2022). Higher Education Students' Perceptions of E-Learning Quality. *Journal of Education and E-Learning Research*, *9*(2), 71–78. https://doi.org/10.20448/jeelr.v9i2.3910

Ariana, R. (2016). *Writing Games: Multicultural Case Studies of Academic Literacy Practices in Higher Education*.

Arief, A., Alek, A., Raya, A. T., Baker, S., & Camden-anders, S. (2020). *American Educators and Democratic Educational Principles and Practices*. *24*(07), 8014–8025.

Arifuddin, A., Turmudi, T., & Rokhmah, U. N. (2021). Alternative Assessments in Online Learning during Covid-19 Pandemic: The Strenghths and Weaknesses. *International Journal of Elementary Education*, *5*(2), 240. https://doi.org/10.23887/ijee.v5i2.33532

Azkiyah, S. N., & Mukminin, A. (2017). In search of teaching quality of EFL student teachers through teaching practicum: Lessons from a teacher education program. *Center for Educational Policy Studies Journal*, *7*(4), 105–124.

Bahari, A. (2020). CANDA: computer-assisted nonlinear dynamic approach for the L2 teaching in blended and distance learning. *Interactive Learning Environments*, *0*(0), 1–27. https://doi.org/10.1080/10494820.2020.1805774

Basri, M. (2020). Innovative Learning Technology (ILT) in Indonesian Vocational Higher Education. *International Journal on Advanced Science, Engineering and Information Technology*, *10*(6), 2599–2605. https://doi.org/10.18517/ijaseit.10.6.11348

Braine, G. (2010). Nonnative Speaker English Teachers: Research, Pedagogy, and Professional Growth. In *Nonnative Speaker English Teachers: Research, Pedagogy, and Professional Growth*. https://doi.org/10.4324/9780203856710

Carpenter, J. P., & Linton, J. N. (2018). Educators' perspectives on the impact of Edcamp unconference professional learning. *Teaching and Teacher Education*, *73*, 56–69. https://doi.org/10.1016/j.tate.2018.03.014

Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: a literature review of online teaching and learning practices. *European Journal of Teacher Education*, *00*(00), 1–22. https://doi.org/10.1080/02619768.2020.1821184

Challob, A. I., Bakar, N. A., & Latif, H. (2016). Collaborative Blended Learning Writing Environment: Effects on EFL Students' Writing Apprehension and Writing Performance. *English Language Teaching*, *9*(6), 229. https://doi.org/10.5539/elt.v9n6p229

Chaloupský, D., Chaloupská, P., & Hrušová, D. (2021). Use of fitness trackers in a blended learning model to personalize fitness running lessons. *Interactive Learning Environments*, *29*(2), 213–230. https://doi.org/10.1080/10494820.2020.1799027

Chan, J. Y. H. (2021). Four decades of ELT development in Hong Kong: Impact of global theories on the changing curricula and textbooks. *Language Teaching Research*, *25*(5), 729–753. https://doi.org/10.1177/1362168819865563

Chen, C. L., & Wu, C. C. (2020). Students' behavioral intention to use and achievements in

ICT-Integrated mathematics remedial instruction: Case study of a calculus course. In *Computers and Education* (Vol. 145). Elsevier Ltd. https://doi.org/10.1016/j.compedu.2019.103740

Chen, W. (2012). Professional growth during cyber collaboration between pre-service and in-service teachers. *Teaching and Teacher Education*, *28*(2), 218–228. https://doi.org/10.1016/j.tate.2011.09.010

Cheng, H. N. H., Liu, Z., Sun, J., Liu, S., & Yang, Z. (2017). Unfolding online learning behavioral patterns and their temporal changes of college students in SPOCs. *Interactive Learning Environments*, *25*(2), 176–188. https://doi.org/10.1080/10494820.2016.1276082

Cheung, S. K. S., Kwok, L.-F., Kubota, K., Lee, L.-K., & Tokito, J. (2018). Blended Learning: Enhancing Learning Success. In *11th International Conference, ICBL 2018: Vol. 10949 LNCS*.

Code, J., Ralph, R., & Forde, K. (2020). Pandemic designs for the future: perspectives of technology education teachers during COVID-19. *Information and Learning Science*, *121*(5–6), 409–421. https://doi.org/10.1108/ILS-04-2020-0112

Coiro, J., & Dobler, E. (2007). Exploring the online reading comprehension strategies used by sixth-grade skilled readers to search for and locate information on the Internet. *Reading Research Quarterly*, *42*(2), 214–257. https://doi.org/10.1598/rrq.42.2.2

Cosma, S. (2020). Securing sex: Embattled masculinity and the pressured pursuit of women's bodies in men's online sex advice. *Feminism and Psychology*, *30*(1), 42–62. https://doi.org/10.1177/0959353519857754

CRĂCIUN, D. (2019). Training future language teachers to educate the digital generation. *Journal of Educational Sciences*, *39*(1), 90–107. https://doi.org/10.35923/jes.2019.1.08

Creswell, J. W. (2013). *John W. Creswell-Research Design_ Qualitative, Quantitative, and Mixed Method Approaches-SAGE Publications (2013).pdf* (p. 273).

Cui, V., Hughes-Roberts, T., & White, N. (2020). Time to get real- difficult and unexpected conversations and first year therapeutic radiography students. *Radiography*, *26*(2020), S34–S35. https://doi.org/10.1016/j.radi.2019.11.087

Cummings, C., Mason, D., Shelton, K., & Baur, K. (2017). Active learning strategies for online and blended learning environments. In *Flipped Instruction: Breakthroughs in Research and Practice*. https://doi.org/10.4018/978-1-5225-1803-7.ch006

Dalimunte, A. A., & Pramoolsook, I. (2020). Genres classification and generic structures in the English language textbooks of economics and islamic economics in an Indonesian university. *LEARN Journal: Language Education and Acquisition Research Network*, *13*(1), 1–19.

Daniel, S. J. (2020). Education and the COVID-19 pandemic. *Prospects*, *49*(1–2), 91–96. https://doi.org/10.1007/s11125-020-09464-3

Divayana, D. G. H., Adiarta, A., & Suyasa, P. W. A. (2021). Development of Material Contents and Online Assessment Based on the Sevima Edlink Platform for Online Learning of Program Evaluation Subject During Covid-19 Pandemic in Indonesia. *Journal of Technology and Science Education*, *11*(2), 498–512. https://doi.org/10.3926/jotse.1243

Djuwendah, E., Karyani, T., & Wulandari, E. (2021). Potential Development Strategy for Attraction and Community-based Agrotourism in Lebakmuncang Village. *E3S Web of Conferences*, *249*. https://doi.org/10.1051/e3sconf/202124901004

Dubinko, S. A., Klimova, I. I., Dubinka-Hushcha, L. A., & Klimova, G. V. (2021). Intercultural communication and success in business. *SHS Web of Conferences*, *125*, 01002. https://doi.org/10.1051/shsconf/202112501002

Elbahwashy, H. I. (2020). Investigating the function of dm "like" in authentic discourse and the importance of incorporating it in esl curriculum. In *Advances in Science, Technology and Innovation* (pp. 123–128). https://doi.org/10.1007/978-3-030-32902-0_15

Eliyana, E., & Ardiyansah, T. Y. (2021). Students' Perspective: Virtual-Based Learning amid the Covid-19 Pandemic by Pre-Service Teachers in Rural Area, Thailand. *Journal of English*

Teaching, Literature, and Applied Linguistics, *5*(1), 2021. http://journal.umg.ac.id/index.php/jetlal/article/view/2157

Enterprises, M., Rupeika-apoga, R., & Petrovska, K. (2022). *Barriers to Sustainable Digital Transformation in Micro- ,*.

Faculty, D. E., & Web, P. (2020). Derived Knowledge and Lived Experiences of Teachers Working in Resource-Constrained Multilingual Classrooms. *Teacher Education Through Flexible Learning in Africa*, *2*(1), 156–171. https://doi.org/10.35293/tetfle.v2i1.92

Gao, L. X., & Zhang, L. J. (2020). Teacher Learning in Difficult Times: Examining Foreign Language Teachers' Cognitions About Online Teaching to Tide Over COVID-19. *Frontiers in Psychology*, *11*(September), 1–14. https://doi.org/10.3389/fpsyg.2020.549653

Garbin Praničević, D. (2021). Augmented Reality and Virtual Reality-Based Technology in Cultural Tourism. *ENTRENOVA - ENTerprise REsearch InNOVAtion*, *7*(1), 314–322. https://doi.org/10.54820/mhny8236

García, O., & Sylvan, C. E. (2011). Pedagogies and practices in multilingual classrooms: Singularities in pluralities. *Modern Language Journal*, *95*(3), 385–400. https://doi.org/10.1111/j.1540-4781.2011.01208.x

Ghufron, M. A., & Ermawati, S. (2018). The strengths and weaknesses of cooperative learning and problem-based learning in EFL writing class: Teachers and students' perspectives. *International Journal of Instruction*, *11*(4), 657–672. https://doi.org/10.12973/iji.2018.11441a

Goh, E., & Sigala, M. (2020). Integrating Information & Communication Technologies (ICT) into classroom instruction: teaching tips for hospitality educators from a diffusion of innovation approach. *Journal of Teaching in Travel and Tourism*, *20*(2), 156–165. https://doi.org/10.1080/15313220.2020.1740636

González-González, C. S., Infante-Moro, A., & Infante-Moro, J. C. (2020). Implementation of e-proctoring in online teaching: A study about motivational factors. *Sustainability (Switzerland)*, *12*(8), 1–13. https://doi.org/10.3390/SU12083488

Gravett, E. H. S., & Rensburg, W. van. (2010). Finding your way in Academic Writing. *Finding Your Way in Academic Writing*, 2. http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Finding+Your+Way+In+Academic+Writing#0%5Cnhttp://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Finding+your+way+in+academic+writing%230

Gwillim, T. D., & Karimova, I. I. (2021). Virtual Exchanges: Fake Mobility or Unique Experiences. *Universal Journal of Educational Research*, *9*(2), 373–379. https://doi.org/10.13189/ujer.2021.090213

Habibi, A., Yusop, F. D., & Razak, R. A. (2020). The role of TPACK in affecting pre-service language teachers' ICT integration during teaching practices: Indonesian context. *Education and Information Technologies*, *25*(3), 1929–1949. https://doi.org/10.1007/s10639-019-10040-2

Haghighi Irani, F., Chalak, A., & Heidari Tabrizi, H. (2020). Assessing pre-service teachers' professional identity construction in a three-phase teacher education program in Iran. *Asian-Pacific Journal of Second and Foreign Language Education*, *5*(1). https://doi.org/10.1186/s40862-020-00100-3

Hamat, A., & Amran, M. F. I. M. (2021). The Use of Vocabulary Learning Strategies in an MMORPG among Southeast Asian ESL Players. *3L: Language, Linguistics, Literature*, *27*(4), 72–84. https://doi.org/10.17576/3L-2021-2704-06

Hao, Y., Lee, K. S., Chen, S. T., & Sim, S. C. (2019). An evaluative study of a mobile application for middle school students struggling with English vocabulary learning. In *Computers in Human Behavior* (Vol. 95). Elsevier B.V. https://doi.org/10.1016/j.chb.2018.10.013

Hernández, A. M. (2022). Enacting Asset-Based Approaches for Critically Conscious Dual Language Teachers: The Administrator's Role in a Professional Learning Community. *Journal of School Administration Research and Development*, *7*(1), 22–35.

https://doi.org/10.32674/jsard.v7i1.2471

Houlden, S., & Veletsianos, G. (2022). A synthesis of surveys examining the impacts of COVID-19 and emergency remote learning on students in Canada. *Journal of Computing in Higher Education*, *34*(3), 820–843. https://doi.org/10.1007/s12528-022-09323-4

Irani, F. H., Chalak, A., & Tabrizi, H. H. (2020). *Assessing pre-service teachers ' professional identity construction in a three-phase teacher education program in Iran*.

Islam Negeri Ar-Raniry, U., Aceh, B., Andriana, D., & Safwan Safrul, M. (2021). Article 16 Part of the Educational Psychology Commons Recommended APA Citation Recommended APA Citation muluk, s., akmal, s. *The Qualitative Report*, *26*(7), 2333–2346. https://doi.org/10.46743/2160-3715/2021.4817

Jazadi, I. (2023). *Preservice Teachers ' Criticality in Analysing School English Teaching Materials : Gender Representation and Islamic Perspective*. *7*(1), 77–93.

John W. Creswell. (2016). *30 Essential Skills for the Qualitative Researcher* (Olivia Weber-Stenis (Ed.)). Sage Publication Inc.

Johnson, K. E., & Golombek, P. R. (2020). Informing and transforming language teacher education pedagogy. *Language Teaching Research*, *24*(1), 116–127. https://doi.org/10.1177/1362168818777539

Kabilan, M. K., & Khan, M. A. (2012). Assessing pre-service English language teachers' learning using e-portfolios: Benefits, challenges and competencies gained. *Computers and Education*, *58*(4), 1007–1020. https://doi.org/10.1016/j.compedu.2011.11.011

Kamarul, M., & Ahsan, M. (2012). Computers & Education Assessing pre-service English language teachers' learning using e-portfolios: Benefits, challenges and competencies gained. *Computers & Education*, *58*(4), 1007–1020. https://doi.org/10.1016/j.compedu.2011.11.011

Kanno, Y. (2021). *English Learners' Access to Postsecondary Education: Neither College nor Career Ready*.

Kemaloglu, E., & Bayyurt, Y. (2022). Implementation of Blended Learning in English As a Lingua Franca (Elf)-Aware Pre-Service Teacher Education. *Turkish Online Journal of Distance Education*, *23*(1), 60–73. https://doi.org/10.17718/tojde.1050353

Khalili, H. (2020). Online interprofessional education during and post the COVID-19 pandemic: a commentary. *Journal of Interprofessional Care*, *00*(00), 687–690. https://doi.org/10.1080/13561820.2020.1792424

Kleinsasser, R. C., Richards, J. C., & Lockhart, C. (1995). Reflective Teaching in Second Language Classrooms. In *The Modern Language Journal* (Vol. 79, Issue 1). https://doi.org/10.2307/329404

König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, *43*(4), 608–622. https://doi.org/10.1080/02619768.2020.1809650

la Velle, L., Newman, S., Montgomery, C., & Hyatt, D. (2020). Initial teacher education in England and the Covid-19 pandemic: challenges and opportunities. *Journal of Education for Teaching*, *46*(4), 596–608. https://doi.org/10.1080/02607476.2020.1803051

Learning, L., & Issn, P.-. (2021). *No Title*. *4*(January), 68–78.

Lestari, H., Hidayat, D. N., Husna, N., Alek, A., & Anita, A. (2022). Native Speaker Interaction with Young Learners in English Class - Hybrid Learning Models. *Loquen: English Studies Journal*, *15*(1), 36–52. https://doi.org/10.32678/loquen.v15i1.5751

Li, R. (2021). Does Game-Based Vocabulary Learning APP Influence Chinese EFL Learners' Vocabulary Achievement, Motivation, and Self-Confidence? *SAGE Open*, *11*(1), 1–12. https://doi.org/10.1177/21582440211003092

Limbong, E. (2017a). *Globalization And Pedagogy : How Should English Teachers Teach English In The 21 st Century ? July*, 61–69.

Limbong, E. (2017b). Globalization And Pedagogy: How Should English Teachers Teach English

In The 21 st Century? *The First International Conference on Education, Science, Art and Technology, July*, 61–69.

Limeranto, J. T., & Subekti, A. S. (2021). Indonesian theology students' foreign language reading anxiety and reading performance: a correlational study. *Studies in English Language and Education*, *8*(1), 131–142. https://doi.org/10.24815/siele.v8i1.17398

Lin, V., Kang, Y. C., Liu, G. Z., & Lin, W. (2016). Participants' Experiences and Interactions on Facebook Group in an EFL Course in Taiwan. *Asia-Pacific Education Researcher*, *25*(1), 99–109. https://doi.org/10.1007/s40299-015-0239-0

Ling-Chin, J., Giampieri, A., Wilks, M., Lau, S. W., Bacon, E., Sheppard, I., Smallbone, A. J., & Roskilly, A. P. (2023). Technology roadmap for hydrogen-fuelled transportation in the UK. *International Journal of Hydrogen Energy*, *xxxx*. https://doi.org/10.1016/j.ijhydene.2023.04.131

Mahdi, H. S. (2018). Effectiveness of Mobile Devices on Vocabulary Learning: A Meta-Analysis. *Journal of Educational Computing Research*, *56*(1), 134–154. https://doi.org/10.1177/0735633117698826

Maher, D. (2020). Video Conferencing to Support Online Teaching and Learning. In *Teaching, Technology, and Teacher Education During the COVID-19 Pandemic: Stories from the Field*. https://www.learntechlib.org/p/216903/

Makovskaya, L., & Radjabzade, S. (2022). Source Use by EFL Undergraduate Students: Challenges and Success in Process-based Writing TT - Source Use by EFL Undergraduate Students: Challenges and Success in Process-based Writing. *Mdrsjrns*, *13*(3), 279–308. https://doi.org/10.29252/LRR.13.3.10

Merç, A. (2015). Using technology in the classroom: A study with turkish pre-service EFL teachers. *Turkish Online Journal of Educational Technology*, *14*(2), 229–240. https://api.elsevier.com/content/abstract/scopus_id/84942077317

Merç, Ali. (2015). Using technology in the classroom: A study with turkish pre-service EFL teachers. *Turkish Online Journal of Educational Technology*, *14*(2), 229–240.

Murray, D. E. (2020). The world of English language teaching: Creating equity or inequity? *Language Teaching Research*, *24*(1), 60–70. https://doi.org/10.1177/1362168818777529

Mutton, T. (2020a). Teacher education and Covid-19 : responses and opportunities for new pedagogical initiatives. *Journal of Education for Teaching*, *00*(00), 1–3. https://doi.org/10.1080/02607476.2020.1805189

Mutton, T. (2020b). Teacher education and Covid-19: responses and opportunities for new pedagogical initiatives. *Journal of Education for Teaching*, *46*(4), 439–441. https://doi.org/10.1080/02607476.2020.1805189

Nielen, T. M. J., Smith, G. G., Sikkema-de Jong, M. T., Drobisz, J., van Horne, B., & Bus, A. G. (2018). Digital Guidance for Susceptible Readers: Effects on Fifth Graders' Reading Motivation and Incidental Vocabulary Learning. *Journal of Educational Computing Research*, *56*(1), 48–73. https://doi.org/10.1177/0735633117708283

Nor, N. F. M., Hamat, A., & Embi, M. A. (2012). Patterns of discourse in online interaction: Seeking evidence of the collaborative learning process. *Computer Assisted Language Learning*, *25*(3), 237–256. https://doi.org/10.1080/09588221.2012.655748

Ntshikila, N., Condy, J. L., Meda, L., & Phillips, H. N. (2022). Five Grade 7 learners' understanding of comprehension skills at a quintile 5 school in South Africa. *Reading and Writing (South Africa)*, *13*(1), 1–15. https://doi.org/10.4102/RW.V13I1.324

Nurhabibah, A., Suryaman, M., & Utami, P. P. (2020). an Analysis of Teachers' Beliefs on Teacher Talk in an Efl Classroom. *English Ideas: Journal of English Language Education*, *1*(1), 69–82.

Nurwahidah, Hamidi, M. R., Husna, N., Farkhan, M., Hidayat, D. N., & Alek, A. (2022). English teachers ' challenges in constructing remote English summative test. *Linguistics, English Education and Art (LEEA)*, *5*(2), 183–193.

Pai, C., Kang, S., Liu, Y., & Zheng, Y. (2021). An examination of revisit intention based on

perceived smart tourism technology experience. *Sustainability (Switzerland)*, *13*(2), 1–14. https://doi.org/10.3390/su13021007

Partelow, S., Hadjimichael, M., & Hornidge, A. (2023). *Ocean Governance: Knowledge Systems, Policy Foundations and Thematic Analyses*. https://doi.org/https://doi.org/10.1007/978-3-031-20740-2

Patton, M. Q. (2002). *Qualitative evaluation and research method* (M. Q. Patton (Ed.); 3rd Edtion). Sage Publication Ltd. http://books.google.com/books/about/Qualitative_research_and_evaluation_meth.html?id=FjBw2oi8El4C

Piet Van den Bossche, Gijselaers, W. H., & Milter, R. G. (Eds.). (2011). *Building Learning Experiences in a Changing World*. Springer.

Prasanna, M. S. M., Shaila, S. G., & Vadivel, A. (2021). Phrase-level sentence patterns for estimating positive and negative emotions using Neuro-fuzzy model for information retrieval applications. *Multimedia Tools and Applications*, *80*(13), 20151–20190. https://doi.org/10.1007/s11042-020-10422-6

Pritchard, A. (2009). Learning Theories and Learning Styles in the Clssroom. In *The Lancet* (Vol. 246, Issue 6365).

Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L. M., & Hyun, C. C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*, *29*(5), 4809–4818.

Rebecca L. Oxford. (n.d.). *Teaching and Researching Language Learning*.

Richards, E., Aucejo, E. M., French, J., Ugalde Araya, M. P., Zafar, B., Richards, E., Hebebci, M. T., Bertiz, Y., Alan, S., Mann, S., Kaden, U., Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., Agha, R., … Burkett, J. R. (2020). What Drives Learning : *Journal of Cases in Educational Leadership*, *78*(March), 52–64. https://www.michaelbarbour.com/%0Ahttps://doi.org/10.1016/j.ijsu.2020.04.018%0Ahttps://doi.org/10.1016/j.jpubeco.2020.104271%0Ahttps://www.usatoday.com/story/news/education/2020/07/31/covid-online-school-kids-mental-health-teachers/5529846002/

Rochmatul, S., Zuhriyah, M., & Agustina, R. K. (2020). Investigating the Implementation of Character Education in An Indonesian EFL Classroom. *Journal of English Language Education*, *3*(2), 185–204.

Rodicio-García, M. L. (2020). The digital divide in Spanish students in the face of the COVID-19 crisis. *Revista Internacional de Educacion Para La Justicia Social*, *9*(3), 103–125. https://doi.org/10.15366/RIEJS2020.9.3.006

Rokhayati, T., & Widiyanti, A. (2022). Using Technology-Based Media for Teaching Speaking in Intercultural Education. *Lingua Cultura*. https://journal.binus.ac.id/index.php/Lingua/article/view/7752

Rosmaladewi, Abduh, A., & Basri, M. (2020). English lecturers' experiences on professional development in indonesian polytechnics. *International Journal of Language Education*, *4*(2), 314–321. https://doi.org/10.26858/ijole.v4i2.15264

Rutten, R. (2019). Openness values and regional innovation: A set-analysis. *Journal of Economic Geography*, *19*(6), 1211–1232. https://doi.org/10.1093/jeg/lby061

Sabu, V., & Vernandes, B. (2019). An Analysis of Student's Critical Thinking Skills in Writing Argumentative Essay. *Vivid: Journal of Language and Literature*, *8*(2), 59–69. http://jurnalvivid.fib.unand.ac.id/index.php/vivid/article/view/154

Saeedakhtar, A., Haqju, R., & Rouhi, A. (2021). The impact of collaborative listening to podcasts on high school learners' listening comprehension and vocabulary learning. *System*, *101*(May), 102588. https://doi.org/10.1016/j.system.2021.102588

Saidi, M. (2020). Can Vision 3 Notch up a Win over Pre-university English Textbook? *Language Teaching Research Quarterly*, *15*, 21–32. https://doi.org/10.32038/ltrq.2020.15.02

Saputra, A., & Fauzi, M. (2022). The Role of Digital Marketing for the Indonesian Inclusive

Boarding School. *International Journal of Innovative Technologies in Social Science*, *2*(34), 1–6. https://doi.org/10.31435/rsglobal

Sepulveda-Escobar, P., & Morrison, A. (2020). Online teaching placement during the COVID-19 pandemic in Chile: challenges and opportunities. *European Journal of Teacher Education*, *43*(4), 587–607. https://doi.org/10.1080/02619768.2020.1820981

Setiawan, J., Sudrajat, A., Aman, & Kumalasari, D. (2021). Development of higher order thinking skill assessment instruments in learning Indonesian history. *International Journal of Evaluation and Research in Education*, *10*(2), 545–552. https://doi.org/10.11591/ijere.v10i2.20796

Simpson, R., & Obdalova, O. A. (2014). New Technologies in Higher Education – ICT Skills or Digital Literacy? *Procedia - Social and Behavioral Sciences*. https://doi.org/10.1016/j.sbspro.2014.10.120

Singh, C. K. S., & Marappan, P. (2020). A review of research on the importance of higher order thinking skills (HOTS) in teaching english language. *Journal of Critical Reviews*, *7*(8), 740–747. https://doi.org/10.31838/jcr.07.08.161

Smith, J. J., & Greene, H. C. (2013). Pre-service teachers use e-learning technologies to enhance their learning. *Journal of Information Technology Education:Research*, *12*(1), 121–140. https://doi.org/10.28945/1790

Smits, T. F. H., & Janssenswillen, P. (2020). Multicultural teacher education: a cross-case exploration of pre-service language teachers' approach to ethnic diversity. *International Journal of Qualitative Studies in Education*, *33*(4), 421–445. https://doi.org/10.1080/09518398.2019.1681536

Snodin, N. S. (2013). The effects of blended learning with a CMS on the development of autonomous learning: A case study of different degrees of autonomy achieved by individual learners. *Computers and Education*, *61*(1), 209–216. https://doi.org/10.1016/j.compedu.2012.10.004

Somekh, B., Davis, N., Desforges, C., Jessels, J., Taylor, C., Vaughan, G., Smith, H. M., Barton, R., McGowan, J., Hurst, V., Scrimshaw, P., Bell, M., Biott, C., Hill, G. B., Whitty, G., Coveney, R., & Pratt, J. (2005). *Using Information Technology Effectively in Teaching and Learning*.

Spiteri, M., & Chang Rundgren, S. N. (2020). Literature Review on the Factors Affecting Primary Teachers' Use of Digital Technology. *Technology, Knowledge and Learning*, *25*(1), 115–128. https://doi.org/10.1007/s10758-018-9376-x

Stubbs, M. (2017). Language and the Mediation of Experience: Linguistic Representation and Cognitive Orientation. In *The Handbook of Sociolinguistics*. https://doi.org/10.1002/9781405166256.ch22

Sulistiyo, U., Mukminin, A., Abdurrahman, K., & Haryanto, E. (2017). Learning to teach: A case study of student teachers' practicum and policy recommendations. *The Qualitative Report*, *22*(3), 712–731.

Sun, K., Cao, X., & Xing, Z. (2021). Can the diffusion modes of green technology affect the enterprise's technology diffusion network towards sustainable development of hospitality and tourism industry in china? *Sustainability (Switzerland)*, *13*(16). https://doi.org/10.3390/su13169266

Sundberg, L. (2019). Electronic government: Towards e-democracy or democracy at risk? *Safety Science*, *118*(September 2018), 22–32. https://doi.org/10.1016/j.ssci.2019.04.030

Sutton, D. (2020). Becoming art. *Deleuze Reframed*. https://doi.org/10.5040/9780755696499.ch-004

Syahri Ramadona, Amida zahirah, Izzatil Qur'ani, Lusi Yana Dewi, Nadia Rofian Dini, & Sakinah Mawaddah. (2022). Educating the Rabbani Generation: A Diffusion of Islamic Scholars Through Participatory Action Research. *Al-Arkhabiil: Jurnal Pengabdian Masyarakat*, *2*(3), 50–63. https://doi.org/10.51590/jpm_assunnah.v2i3.285

Televantou, I., Marsh, H. W., Dicke, T., & Nicolaides, C. (2021). Phantom and big-fish-little-

pond-effects on academic self-concept and academic achievement: Evidence from English early primary schools. *Learning and Instruction*, *71*(November 2018), 101399. https://doi.org/10.1016/j.learninstruc.2020.101399

Tseng, J. J., Cheng, Y. S., & Yeh, H. N. (2019). How pre-service English teachers enact TPACK in the context of web-conferencing teaching: A design thinking approach. *Computers and Education*, *128*, 171–182. https://doi.org/10.1016/j.compedu.2018.09.022

Univers, M., & Sydney, T. (2020). *Building belonging in online WIL environments – les s ons (re) lea rnt in the pa ndemic a ge : a colla bora tive enquiry Introduction : Online , Remote or Virtual Internships and Practicums Belongingness in recent years*.

Ur Rahman, M. M. (2021). Using blended approach for EFL learning: A step towards 21stcentury classrooms. *World Journal of English Language*, *11*(2), 13–18. https://doi.org/10.5430/wjel.v11n2p13

Verduzco Villaseñor, M. del C., Cornejo Ortega, J. L., & Espinoza Sánchez, R. (2023). Governmental Strategies and Policies in the Projection of Smart Tourist Destination: An Approach to the Conceptual and Theoretical Qualitative Analysis. *Sustainability (Switzerland)*, *15*(9). https://doi.org/10.3390/su15097166

Voices, T. H. E., Preservice, O. F., Teachers, E. F. L., The, O. N., & Model, D. P. (2016). *The voices of preservice EFL teachers on the implementation of teacher educators' flipped classroom in designing*. *3*(2), 171–191. https://doi.org/10.15408/ijee.v3i2.5511.Permalink/

Wambugu, P. W. (2018). Massive open online courses (MOOCs) for professional teacher and teacher educator development: A case of TESSA MOOC in Kenya. *Universal Journal of Educational Research*, *6*(6), 1153–1157. https://doi.org/10.13189/ujer.2018.060604

Wang, L. (2022). Rural Tourism Resource Research Based on Multisensor and Geographic Information Big Data. *Journal of Sensors*, *2022*. https://doi.org/10.1155/2022/1670571

Wang, W. (2019). Facilitating Human-Robot Collaborative Tasks by Teaching-Learning-Collaboration from Human Demonstrations. *IEEE Transactions on Automation Science and Engineering*, *16*(2), 640–653. https://doi.org/10.1109/TASE.2018.2840345

Wijaya, K. (2021). The Important Role of Self-Regulation in Worldwide EFL Learning Contexts. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, *7*(1), 65–76. https://doi.org/10.35974/acuity.v7i1.2578

Wijayanto, M. E. (2020). the Integration of Islamic Values in Implementation of Learning English: Islamic Education Students Perspective. *ETERNAL (English, Teaching, Learning, and Research Journal)*, *6*(1), 18. https://doi.org/10.24252/eternal.v61.2020.a2

Wijayati, P. H., Retnantiti, S., Indriwardhani, S. P., Schön, S., Kharis, M., Novitasari, A., & Fitrisia, T. C. (2022). Preferences of Online Learning Assessment in Higher Education During the Pandemic Based on Perspectives of Students and Lecturers. *Journal of Higher Education Theory and Practice*, *22*(3), 109–117. https://doi.org/10.33423/jhetp.v22i3.5087

Williams, J. A., & Glass, T. S. (2019). Teacher education and multicultural courses in North Carolina. *Journal for Multicultural Education*, *13*(2), 155–168. https://doi.org/10.1108/JME-05-2018-0028

Wright, A. C., Carley, C., Alarakyia-Jivani, R., & Nizamuddin, S. (2023). Features of High-Quality Online Courses in Higher Education: A Scoping Review. *Online Learning Journal*, *27*(1), 46–70. https://doi.org/10.24059/olj.v27i1.3411

Xiaolei, J. (2022). Innovative Research on the Design and Development of Innovative Products from the Perspective of Cultural and Creative IP. *International Journal of Science and Engineering Applications*, *11*(12), 444–446. https://doi.org/10.7753/ijsea1112.1064

Xodabande, I. (2022). Self-directed learning of core vocabulary in English by EFL learners: comparing the outcomes from paper and mobile application flashcards. *Journal of Computers in Education*, *9*(1), 93–111. https://doi.org/10.1007/s40692-021-00197-6

Xodabande, Ismail, & Atai, M. R. (2020). Using mobile applications for self-directed learning

of academic vocabulary among university students. *Open Learning*, *00*(00), 1–18. https://doi.org/10.1080/02680513.2020.1847061

Zabidi, F. N. M., Abd Rahman, N., & Halim, L. (2021). Integration of islamic values for environmental conservation: An analysis of school textbooks. *Religions*, *12*(7), 1–18. https://doi.org/10.3390/rel12070509

Zakareya, S., & Alahmad, S. (2019). Inverted Teaching for Improving the Teaching Performance of EFL Student Teachers at Jubail College of Education. *English Language Teaching*, *12*(4), 15. https://doi.org/10.5539/elt.v12n4p15

Zein, M. S. (2017). Language in education policy on Primary EFL: the case of Indonesia. *International Journal of Pedagogies and Learning*. https://www.researchgate.net/profile/Subhan_Zein/publication/325050617_Language_i n_education_policy_on_primary_EFL_The_case_of_Indonesia/links/5af38a6d0f7e9b026 bcc6b31/Language-in-education-policy-on-primary-EFL-The-case-of-Indonesia.pdf

Zhang, Q. (2022). Politeness in Online Educational Discourse: Exploring Relational Work Strategies in Online Teacher-Student Interactions. *Open Journal of Social Sciences*, *10*(07), 245–261. https://doi.org/10.4236/jss.2022.107021

Калабин, А. Л., & Корнеева, Е. И. (2020). Theory and Applications of Natural Language Processing. In *Вестник Вгу. Серия: Системный Анализ И Информационные Технологии* (Issue 2).