Assessing primary educators' needs for effective technology integration in English Language Instruction

Thamayanthi Krishna Radi* & Mohd Nazir Md Zabit

Faculty of Human Development, Sultan Idris Education University,
35900 Tanjong Malim, Perak, Malaysia

**Corresponding author: magenthama12@gmail.com*, mohd.nazir@fpm.upsi.edu.my*

Received: 27 Mac 2025; **Accepted:** 30 April 2025; **Published:** 28 May 2025

To cite this article (APA): Krishna Radi, T., & Md Zabit, M. N. . (2025). Assessing primary educators' needs for effective technology integration in English Language Instruction. *Jurnal Pendidikan Bitara UPSI*, *18*(1), 52-62. https://doi.org/10.37134/bitara.vol18.1.6.2025

To link to this article: https://doi.org/10.37134/bitara.vol18.1.6.2025

Abstract

This study examines primary school English teachers' aspirations and challenges in using technology to improve English language instruction. These teachers represent a wide range of urban and rural teaching environments to shed light on their experiences and needs. Cluster random selection was utilized to survey 252 primary school teachers in Kinta District, Ipoh, Perak, for a correlation quantitative research design. The study found that inadequate training, limited access to digital resources, and infrastructure constraints including low internet connectivity are major hurdles. Additionally, instructors stressed the importance of personalized learning programs for professional advancement. The main goal of such programs should be to give participants hands-on, practical training and continuing support to increase their confidence in using technology in the classroom. The study emphasizes the importance of aligning technological advances with pedagogical strategies to ensure their successful integration into teaching practices. This finding offers policymakers and educators realistic advice for equitable and effective technology use in English language training. These recommendations are presented by addressing the identified hurdles and providing support for teacher preparedness. The results of this study provide a technique to enhance the English language skills of elementary school pupils, making it possible for them to be better prepared to tackle the challenges of a digital and internationally connected life. This study contributes to the field of language education and educational technology by identifying targeted strategies to support English teachers in integrating digital tools effectively.

Keywords: Integration of technology, English language guidance, Educator needs, Primary school

INTRODUCTION

English language instruction in Malaysian elementary schools is essential for preparing children to fulfill the requirements of the 21st century Yaccob et al. (2022). English has transcended being merely a subject and has become a medium of global communication (Ng & Diskin-Holdaway, 2023). This renders it unfeasible to assess the significance of English inside the curriculum. In Malaysia, English proficiency is essential for advancing education and professional professions, therefore serving as the foundation of the nation's education system (H. Zhang, 2024). Contradictory data indicates persistent low levels of proficiency among these children, as seen by their performance in standardized English examinations, particularly in their PBD (classroom-based assessment) (Malik et al., 2022). An urgent need exists to reevaluate and enhance the methodology of English instruction in classrooms.

English instruction in Malaysian primary schools is grounded on memorization, repetition, and the continual writing of identical content (X. Zhang & Winke, 2024). The deficiency in literature fails to engage pupils' cognitive and emotional responses to the language. Consequently, children are

inadequately equipped to utilize English in practical contexts (Subramanian, 2024). Another concern is that educators fail to employ sufficiently engaging and innovative teaching methods, hindering students' ability to interact with English in a meaningful manner (Hong et al., 2020). To resolve these issues, we must alter our pedagogical approach. A significant aspect of this transformation should involve the integration of innovative educational methods through technology to enhance the engagement and efficacy of English language learning for students (Wen, 2023).

Technology influences education by enhancing interactivity, prioritizing student engagement, and ensuring relevance to their life (Erbas et al., 2021). Incorporating technology in language classrooms provides students with access to authentic materials such as pictures, audio, and other applications. This enables them to observe the utilization of language in unremarkable contexts (Pujolà & Appel, 2020). Moreover, games and other digital tools have demonstrated their capacity to enhance motivation and increase student engagement, particularly among younger individuals (Basri D et al., 2022). Despite these potential advantages, the use of technology in Malaysian classrooms located in rural and underserved regions is suboptimal.

Elementary educators have considerable obstacles when attempting to integrate technology into their classrooms (Akram et al., 2022). The issues encompass inadequate training, insufficient resources, and scarce of infrastructure, such as unreliable internet and outdated technology (Gaparova & Sydykova, 2024). Numerous educators also lack opportunities to acquire knowledge regarding the integration of technology in their profession. In the absence of adequate support, educators struggle to optimize digital tools (Akram et al., 2022). This places their pupils at a disadvantage in acquiring the language skills necessary for success in academia and employment (Forster et al., 2022). Attitudinal barriers are as significant as structural and logistical obstacles (Ng & Diskin-Holdaway, 2023). Many educators exhibit hesitance to adopt technology in their classrooms, primarily due to insufficient confidence or knowledge with digital tools. The perceived intricacy of employing technology in the classroom consequently dissuades these educators, despite the evident advantages. Overcoming such reluctance necessitates customized interventions that, by practical training and ongoing support, enhance instructors' proficiency and assurance in utilizing technology (Ahadi et al., 2024).

This study seeks to identify and address the special requirements of primary school English educators as they incorporate technology into their instructional methodologies. This study aims to provide practical insights into the issues faced by teachers in the Northern District of Ipoh, Perak, Malaysia, by analyzing their experiences and perspectives, as well as the resources they require. The findings of this study may impact legislative decisions and inform professional development programs that facilitate teachers' effective integration of technology in their classrooms.

This research enhances the broader discourse on educational technology by elucidating the interplay among pedagogical approaches, technological innovations, and contextual factors (Haryadi & Aminuddin, 2023). The study emphasizes the essential requirement to align technology integration with the distinct needs of educators and learners, guaranteeing that the interventions are pertinent and efficacious (Dalimunthe et al., 2024). Thus, it seeks to provide a more equal and effective framework for English language education in Malaysia. Nevertheless, there is a paucity of empirical research in Malaysia that specifically investigates the interplay between infrastructure limitations, teacher readiness, and professional development requirements for the integration of technology in primary English classrooms.

PROBLEM STATEMENT

Although Malaysia's education policies emphasize digital integration, especially in English language instruction, implementation remains inconsistent at the primary level (Zheltukhina et al., 2023). Many teachers lack the necessary skills, confidence, and access to technological tools to effectively use them in classrooms (Akram et al., 2022). This mismatch between policy direction and ground-level practice is exacerbated in under-resourced schools, where infrastructure limitations such as unreliable internet and insufficient devices persist (Gaparova & Sydykova, 2024). Moreover, current professional development programmes are often generic and fail to offer continuous, hands-on training tailored to specific classroom contexts (Ahadi et al., 2024). As a result, educators are unable to fully utilize the potential of technology to support student engagement and improve language learning outcomes. This

gap in practice highlights the need to identify the actual requirements and barriers faced by primary school English teachers in integrating digital tools. Therefore, this study seeks to investigate these challenges and propose actionable solutions grounded in empirical evidence.
.

OBJECTIVE

The purpose of this study is to evaluate educators' requirements for technology integration in English language instruction, with a particular focus on the integration of technology in teaching practices. This study examines English teachers' obstacles and the support they need to improve instruction with technology in Kinta District, Perak.

Specifically, this study aims to

a. identify the principal barriers encountered by primary school English educators in using technology in their pedagogical methods.
b. determine particular professional development requirements and resources necessary for assisting educators in technology integration.
c. explore the perspectives of educators regarding the importance and the possibilities of technology in the teaching of English.

METHODS

Research Design

This investigation employs a quantitative research design to evaluate the requirements and obstacles faced by primary school English instructors as they endeavor to incorporate technology into their instructional practices (Sulakatko, 2024). A quantitative approach was selected due to its capacity to collect measurable data that can be analyzed to identify patterns and trends, thereby providing a clear understanding of the perceptions and needs of teachers (Twycross, 2004). A structured questionnaire was employed to gather data, with the objective of obtaining comprehensive information regarding various aspects of technology integration, such as the barriers teachers encounter, their professional development requirements, and their perceptions (Nassaji, 2020).

Population

Based on the most recent data from the District Education Office (JPN), the demographic of this study comprises all primary school English language teachers in the Kinta District, Ipoh, Perak. The district has a total of 436 English optionist teachers, as indicated by the available records. A sample size of 205 was initially determined to be adequate for generalization using the Krejcie and Morgan Sample Size Determination Table (1970). Nevertheless, the researcher gathered data from a total of 252 English instructors, surpassing the minimum requirement, in order to improve the reliability and depth of the case study.

These participants were chosen due to their significant contributions to the provision of English language instruction at the primary level. A purposive sampling method was implemented in order to acquire valuable insights. This method was designed to identify individuals who possessed specific qualifications, such as a minimum of three years of teaching experience. This guaranteed that the participants were well-versed in the advantages and challenges of integrating technology into their classrooms and had a wealth of teaching experience.

Outreach to schools in a variety of urban and rural districts throughout the Northern District of Ipoh was a component of the sampling procedure. By collaborating with school administrators and local educational authorities, we were able to identify eligible instructors, ensuring a diverse sample that reflects the conditions of both well-resourced and under-resourced schools. The investigation included a total of 252 teachers, which yielded a robust dataset for analysis. After being informed of the study's objectives and the confidentiality of their responses, the selected instructors consented to participate voluntarily.

Instrument

The structured questionnaire that was developed for data collection was composed of numerous sections that were intended to investigate various aspects of technology integration. It collected demographic data, teachers' perspectives on technology, the obstacles they faced, and their preferences for professional development opportunities. The instrument was reviewed and validated by three field experts to ensure its validity: a professor of pedagogy, a senior lecturer in TESL, and a lecturer in educational technology. The items were refined to ensure that they were in alignment with the study's objectives, relevant, and clear as a result of their feedback. A pilot study was conducted with 30 English language teachers who were not included in the actual sample prior to complete deployment. The instrument's internal consistency was assessed using Cronbach's alpha, which resulted in a reliability coefficient of $\alpha = 0.87$, which suggests a high level of reliability, as suggested by the pilot results. The questionnaire utilized a 5-point Likert scale, which ranged from "Strongly Disagree" to "Strongly Agree," to thoroughly evaluate attitudes and opinions. The choice to employ a five-point Likert scale was deliberate, as it offers a balanced array of options that are straightforward for respondents to understand and respond to. Furthermore, the midpoint option enables participants to signify neutrality when appropriate, thereby enhancing the data's reliability and accuracy. This methodological approach guarantees that the findings are both comprehensive and directly pertinent to the objectives of the investigation.

The data were analysed using Spearman's Rho correlation to determine the strength and direction of associations between variables. This non-parametric test was chosen due to the ordinal nature of the Likert scale data and the absence of normal distribution. Correlations were assessed for significance at $p < 0.05$ and $p < 0.01$ levels, justifying the relationships discussed in relation to each research objective.

Research Findings

As referring to Chart 1, below, the demographics of the study show that most of the respondents are female teachers (87.3%), with only 12.7% being male teachers. In this case, this shows that English lessons are mostly given by women. A little more than half (54%) are English teachers, 23% are English panel heads, and the last 23% are other English teaching specialists. This makes sure that a range of teaching ideas is represented. The sample also has teachers from both urban and rural schools (54.4%), so it's a good representation of both areas. This lets us look into how location affects the availability of technology and teaching tools. Also, the participants have different amounts of teaching experience. Most of them (63.5% of them) have been teaching for more than 10 years, which means that the study is mostly based on teachers with a lot of experience. The other end of the spectrum shows that only 7.5% of those who answered have less than three years of experience. This means that the results will be based on more known teaching norms. Additionally, the information given gives us a complete icture of how teachers feel about using technology and the grammar-boosting tool when teaching English.

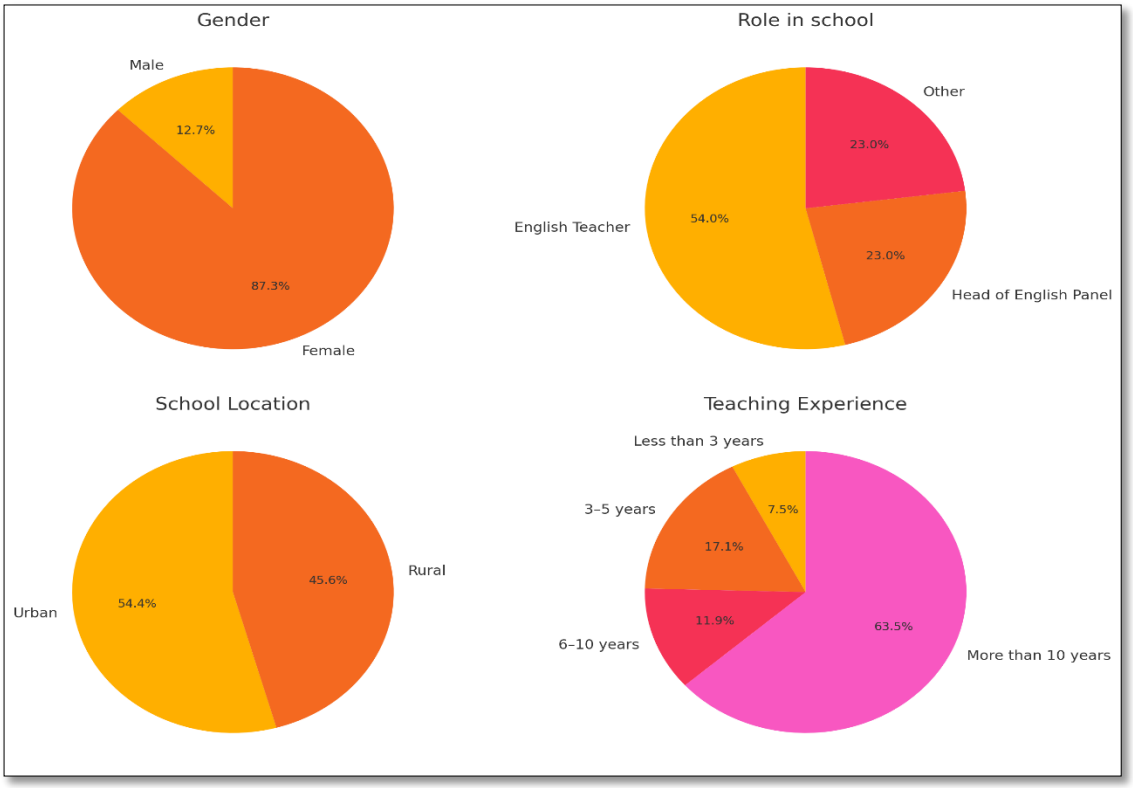

Chart 1. Demographic

Table 2 indicates the results derived from the study's three different aims. Spearman's rho correlation analysis was employed to assess the strength and significance of the correlations among the variables discovered in the study.

> Objective a) To identify the principal barriers encountered by primary school English educators in using technology in their pedagogical methods

The analysis revealed a weak but significant positive correlation between limited access to technological resources and students' English language proficiency ($\rho = 0.253$, $p < 0.001$). This suggests that inadequate access to devices and internet may hinder students' ability to enhance language skills. This finding aligns with Akram et al. (2022), who reported that resource shortages restrict both student engagement and instructional quality. Additionally, a weak positive correlation was observed between limited access to resources and teachers' need for instructional workshops ($\rho = 0.220$, $p < 0.001$). Teachers lacking access to digital tools are more likely to seek professional training, reinforcing the view that infrastructure and teacher competency must be addressed simultaneously (Ahadi et al., 2024). Another important result shows that students' unfamiliarity with technology moderately correlates with their difficulty in accessing pre-prepared digital content ($\rho = 0.152$, $p = 0.016$). This highlights the need to improve students' digital literacy as part of English instruction

> Objective b) To determine particular professional development requirements and resources necessary for assisting educators in technology integration

The findings revealed a moderate positive correlation between insufficient training and the perceived need for assistance in developing technology-integrated lesson plans ($\rho = 0.473$, $p < 0.001$). This suggests that although educators recognise the value of technology in improving instruction, they feel underprepared to apply it effectively. This is consistent with Ahadi et al. (2024), who stressed the importance of structured, hands-on workshops in boosting teachers' confidence and pedagogical skills. Furthermore, a weak positive correlation was observed between students' lack of familiarity with digital

tools and the difficulty teachers face in using pre-prepared teaching resources ($\rho = 0.152$, $p = 0.016$). This implies that when students are not digitally literate, the teacher's efforts to implement interactive digital content become less effective. These findings align with the work of Forster et al. (2022), who emphasized the interconnectedness of student readiness and instructional effectiveness in tech-based learning environments.

> Objective c) To explore the perspectives of educators regarding the importance and the possibilities of technology in the teaching of English

The study identified a strong positive correlation between investment in ICT infrastructure and access to ready-to-use teaching materials ($\rho = 0.527$, $p < 0.001$). This indicates that schools with better infrastructure are more likely to offer digital tools that support teaching. The finding supports Subramanian (2024), who stated that infrastructural investment significantly increases teaching efficiency in digital classrooms. In addition, a moderate positive correlation was found between the need for technology integration workshops and the level of ICT investment ($\rho = 0.327$, $p < 0.001$). This reinforces the idea that providing hardware alone is insufficient—continuous professional development must accompany it. These findings reflect the views of Gaparova & Sydykova (2024), who argue that a dual approach of infrastructure provision and teacher empowerment is essential for effective technology integration.

In conclusion, these findings emphasize the significance of a comprehensive professional development model that integrates infrastructure investment, ongoing support, and hands-on training. Not only do educators need the necessary instruments to teach with technology, but they also need the confidence and competence to use them effectively. In order to guarantee the successful and sustainable incorporation of technology in English language education, it is imperative that these requirements be addressed at both the school and policy levels.

Objectives	Variables		Spearman Rho	Level of significance in test	Correlation coefficient
	Independent	**Dependent**			
a. To identify the principal barriers encountered by primary school English educators	The English language skills of students are improved through the use of technology.	Inability to gain access to technological resources	0.253	<0.001 significant at the 0.01 level (2-tailed)	Weak positive correlation
	Inability to gain access to technological resources	Instructional workshops on the integration of technology are required.	0.220	<0.001 significant at the 0.01 level (2-tailed)	Weak positive correlation
b. To determine educators' perspectives on the importance and possibilities of technology	Insufficient amount of training	Training on the development of lesson plans that include technology	0.473	<0.001 significant at the 0.01 level (2-tailed)	moderate positive correlation
	A lack of familiarity with technology among the students.	Access to instructional resources that are already prepared for use.	0.152	0.016 significant at the 0.05 level (2-tailed).	Weak positive correlation
c. To explore professional development needs and resources for tech integration	Access to instructional resources that are already prepared for use.	Increase investment for the information and communications technology infrastructure in schools.	0.527	<0.001 significant at the 0.01 level (2-tailed)	strong positive correlation
	Workshops on the integration of technology are required.	Increase investment for the information and communications technology infrastructure in schools.	0.327	<0.001 significant at the 0.01 level (2-tailed)	moderate to strong positive correlation

Table 2. Correlation Table

DISCUSSION

This study provides valuable insights into the integration of technology in English language instruction by primary school teachers in Malaysia. The findings support previous research by Akram et al. (2022) and Ahadi et al. (2024), emphasizing that inadequate infrastructure, limited access to digital resources, and insufficient teacher preparation are major barriers to the effective use of technology in educational settings. The notable correlation established between resource limitations and the demand for professional development underscores the pressing need for structured and continuous training (Ahadi et al., 2024; Zheltukhina et al., 2023). The established link between insufficient training and challenges in integrating technology into lesson planning supports Subramanian's (2024) results, which indicate that educators often fully equipped to utilize technology effectively without enough pedagogical support. The limited correlation between students' lack of familiarity with digital technology and their difficulties in accessing online learning resources aligns with the findings of Forster et al. (2022), who highlighted the impact of student digital readiness on educational outcomes. In contrast, Forster et al. (2022) suggest that educators' views and intrinsic motivation may outweigh structural determinants in influencing technology adoption. The research highlighted teacher perceptions as a primary barrier; nevertheless, the current study indicates that external constraints, such as infrastructure and access, are more substantial in the context of Malaysian primary schools. This mismatch suggests that solutions should be customized to specific settings, rather than assuming a universal approach to teacher preparedness.

These findings correspond with the TPACK (Technological Pedagogical Content Knowledge) framework, which asserts that successful technology integration arises from the intersection of technological, pedagogical, and content knowledge (Pujolà & Appel, 2020). The current study indicates that while educators demonstrate pedagogical and subject matter expertise, their lack of technological skills and resources diminishes the TPACK integration. Addressing this difference through targeted professional development could significantly enhance their confidence and teaching effectiveness.

The SAMR paradigm (Substitution, Augmentation, Modification, Redefinition) reveals that most educators currently operate at the Substitution level, where technology merely replaces traditional tools for example using PowerPoint instead of whiteboards. Without training and exposure to transformative approaches such as gamified learning or collaborative platforms, educators are unlikely to achieve higher SAMR levels that foster student innovation and deep engagement (Wen, 2023).

The unique aspect of this study is its comprehensive geographical scope, encompassing both urban and rural schools in the Kinta District. This research provides an extensive overview of the challenges and needs of educators in diverse educational environments, in contrast to other studies that have analyzed urban and rural contexts separately (Gaparova & Sydykova, 2024). This perspective offers valuable insights for policymakers and educational leaders seeking to implement more equitable and effective digital learning practices.In conclusion, while educators are typically open to incorporating technology, their ability to do so is significantly impeded by resource limitations and inadequate specialized training. Effective technology integration in English language instruction demands more than just hardware implementation; it requires continuous professional support customized to the distinct instructional environments of Malaysian primary schools.

IMPLICATIONS

This study has several important implications for educators, policymakers, and those involved in education.

i) Conduct structured and ongoing teacher training programs

First and foremost, it highlights the necessity for thorough professional development programs that provide teachers with the practical skills needed to effectively incorporate technology into language teaching. Such programs should feature interactive workshops, mentorship opportunities, and ongoing support systems to promote continuous learning and application (Ahadi et al., 2024).

ii) Increase targeted ICT investment in under-resourced schools

Policymakers should focus on investing in ICT infrastructure, especially in rural and underserved schools. The study shows that having access to digital resources directly impacts how effectively technology is integrated, highlighting the need for educational institutions to close the digital divide (Zheltukhina et al., 2023). A policy framework that guarantees fair distribution of digital tools and connectivity can greatly improve learning outcomes.

iii) Promote a positive culture of tech use among educators via peer-sharing platforms

Additionally, curriculum developers need to ensure that their instructional strategies keep pace with technological advancements to foster interactive and student-centered learning experiences. By integrating multimedia resources, digital storytelling, and language learning applications, educators can help students cultivate practical language skills in engaging and effective ways (H. Zhang, 2024). Finally, it's important to promote positive changes in educators' attitudes toward technology use through incentive programs and peer-led communities of practice. By encouraging teachers to share their best practices and success stories, we can nurture a more technology-friendly teaching culture (Ng & Diskin-Holdaway, 2023).

CONCLUSION

This study highlights the essential role of technology in enhancing English language instruction in Malaysian primary schools. While teachers demonstrate a positive disposition toward digital tools, their efforts are often hindered by infrastructure constraints, limited access to teaching materials, and a lack of practical training. These challenges are especially acute in under-resourced environments, where digital inequalities continue to affect both teaching quality and student learning outcomes. The findings affirm that effective technology integration depends not only on access to devices and connectivity but also on sustained, context-driven professional development. The study’s alignment with the TPACK framework underscores the need to balance technological, pedagogical, and content knowledge. Similarly, most teachers in this study appear to function at the lower levels of the SAMR model, signalling the need for interventions that promote innovation and deeper instructional transformation. A key contribution of this research lies in its inclusive examination of educators across varied school settings within a single district, revealing nuanced insights that bridge urban and rural realities. The study adds to the growing discourse on teacher digital readiness and calls for targeted support that merges infrastructure investment with meaningful professional training. Moving forward, policymakers must prioritize localized, needs-based strategies that support both students' and teachers’ digital competencies. Future research should explore long-term impacts of professional development models and examine how emerging tools such as AI or gamified platforms can redefine the landscape of English language education.

ACKNOWLEDGEMENT

I want to express my profound appreciation to all teachers, JPN and PPD officers, and school administration for helping with this endeavor. I would like to thank my supervisor for his advice, knowledge, and continuous assistance in the development of this study. For the significant financing, I would like to thank the Ministry of Education Malaysia's Bahagian Tajaan Pendidikan (BTP).

REFERENCES

Ahadi, A., Bower, M., Lai, J., Singh, A., & Garrett, M. (2024). Evaluation of teacher professional learning workshops on the use of technology - a systematic review. *Professional Development in Education*, *50*(1), 221–237. https://doi.org/10.1080/19415257.2021.2011773

Akram, H., Abdelrady, A. H., Al-Adwan, A. S., & Ramzan, M. (2022). Teachers' Perceptions of Technology Integration in Teaching-Learning Practices: A Systematic Review. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.920317

Basri D, M., Ampa, A. T., Andriani, A. A., & Asmasary, A. A. (2022). Integration of Technology in English Classroom Interaction. *Technium: Romanian Journal of Applied Sciences and Technology*, *4*(10), 174–187. https://doi.org/10.47577/technium.v4i10.7994

Erbas, İ., Çipuri, R., & Joni, A. (2021). Impact of technology on teaching and teaching English to elementary school students. *Linguistics and Culture Review*, *5*(S3), 1316–1336. https://doi.org/10.21744/lingcure.v5nS3.1815

Forster, C., Wire, T., Eperjesi, R., Hollier, R., Howell, E., & Penny, J. (2022). Exploring the impact of expert guidance from school-based mentors on student teachers' professional learning. *PRACTICE*, *4*(1), 56–66. https://doi.org/10.1080/25783858.2021.1997338

Gaparova, G. I., & Sydykova, T. M. (2024). INNOVATIVE METHODS OF TEACHING ENGLISH IN PRIMARY SCHOOLS. *Вестник Иссык-Кульского Университета*. https://doi.org/10.69722/1694-8211-2024-58-232-237

Hong, Q. N., Rees, R., Sutcliffe, K., & Thomas, J. (2020). Variations of mixed methods review approaches: A case study. *Research Synthesis Methods*, *11*(6), 795–811. https://doi.org/10.1002/jrsm.1437

Malik, S., Malek, M., Saidin, S. F., & Afip, L. A. (2022). ENGLISH PROFICIENCY AMONG BUSINESS STUDENTS AND ITS IMPACT ON ACADEMIC PERFORMANCE. *International Journal of Education, Psychology and Counseling*, *7*(47), 327–336. https://doi.org/10.35631/IJEPC.747028

Nassaji, H. (2020). Good qualitative research. *Language Teaching Research*, *24*(4), 427–431. https://doi.org/10.1177/1362168820941288

Ng, J. C., & Diskin-Holdaway, C. (2023). Attitudes to English in contemporary Malaysia. *World Englishes*, *42*(3), 562–578. https://doi.org/10.1111/weng.12562

Pujolà, J.-T., & Appel, C. (2020). *Gamification for Technology-Enhanced Language Teaching and Learning* (pp. 93–111). https://doi.org/10.4018/978-1-7998-2591-3.ch005

Quantitative Methods in Research (pp. 90–114). (2021). https://doi.org/10.4018/978-1-7998-6622-0.ch005

Subramanian, L. (2024). English Language Anxiety and Its Impact on Communicative Performance. *Integrated Journal for Research in Arts and Humanities*, *4*(2), 158–161. https://doi.org/10.55544/ijrah.4.2.26

Twycross, A. (2004). Research design: qualitative, quantitative and mixed methods approachesResearch design: qualitative, quantitative and mixed methods approaches Creswell John W Sage 320 £29 0761924426 0761924426. *Nurse Researcher*, *12*(1), 82–83. https://doi.org/10.7748/nr.12.1.82.s2

Wen, X. (2023). The Effect of Gamification Learning on Primary School Students' Second Language Learning. *Journal of Education, Humanities and Social Sciences*, *22*, 492–501. https://doi.org/10.54097/ehss.v22i.12510

Yaccob, N. S., Yunus, M. M., & Hashim, H. (2022). The Integration of Global Competence Into Malaysian English as a Second Language Lessons for Quality Education (Fourth United Nations Sustainable Development Goal). *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.848417

Zhang, H. (2024). The Impact of English Language Development on Internationalization of Education. *Lecture Notes in Education Psychology and Public Media*, *34*(1), 243–249. https://doi.org/10.54254/2753-7048/34/20231933

Zhang, X., & Winke, P. (2024). Time to Proficiency in Young English Learners and Factors That Affect Progress. *TESOL Quarterly*. https://doi.org/10.1002/tesq.3340

Zheltukhina, M. R., Kislitsyna, N. N., Panov, E. G., Atabekova, A., Shoustikova, T., & Kryukova, N. I. (2023). Language learning and technology: A conceptual analysis of the role assigned to technology. *Online Journal of Communication and Media Technologies*, *13*(1), e202303. https://doi.org/10.30935/ojcmt/12785