INTEGRATING TECHNOLOGY INTO ESP CLASSE

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ABSTRACT

In order to better understand how clickers and English learning applications can improve student engagement and language acquisition, this study examines how technology can be used into English for Specific Purposes (ESP) classrooms. There were two groups in the study: the experimental group and the control group. During the lessons, the experimental group used clickers to get real-time feedback and ask interactive questions. Outside of the classroom, English learning applications were also used to improve listening comprehension, grammar, and vocabulary. The experimental group outperformed the control group in terms of participation, instant comprehension, and retention, according to the results, making it clear that these technologies have the potential to foster a more engaging and encouraging ESP learning environment. In discussing the ramifications of these findings, this paper highlights how well-chosen devices can greatly improve.

Keywords: ESPmanagement systems, virtual simulations, clicker, feedback.

Integrating technology into English for Specific Purposes (ESP) classrooms has become increasingly important in today's schooling. ESP focuses on teaching English in specialized professional or academic settings, such as business, engineering, or medical. As technology alters these disciplines, ESP training must evolve to ensure that students have both language fluency and the digital capabilities needed in their particular sectors.[1]

The incorporation of technology into ESP classrooms promotes personalized learning, increased engagement, and real-world applicability. Learning management systems (e.g., Moodle), video conferencing platforms, and specialist software all provide authentic content and chances for collaborative learning. For example, virtual simulations can immerse medical students in clinical circumstances where they practice medical terminology, whereas business English students can use technologies like Slack or Trello to replicate corporate communication.[2]

The trend toward integrating technology into ESP is consistent with broader educational developments, such as the growth of digital literacy and 21st-century skills.

1. Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes: A Learning-Centred Approach.* Cambridge University Press.
[2] Chapelle, C. A. (2003). *English Language Learning and Technology: Lectures on Applied Linguistics in the Age of Information and Communication Technology.* John Benjamins Publishing.

However, issues including accessibility, educator training, and potential overreliance on technology must be addressed. Effective implementation necessitates a combination of technology and conventional teaching techniques, with technological tools serving as facilitators rather than alternatives for meaningful language training.[3]

Because the nature of language varies greatly from context to context, i.e. tourism, commerce, engineering, medical, and so on, the activities and materials used in ESP classes in these specific fields must be carefully chosen while keeping learners' needs and desires in mind. Because of the difficulties involved, ESP teachers attempted to incorporate technology into their classes, and the use of technology eventually influenced ESP teaching. When technology has an impact on all aspects of life, language learning and ESP are no exception. This procedure was unavoidable due to technological improvements and language teachers' desire to completely incorporate computer and mobile phone technology into the language learning process, as the growth of new technologies and language learning has always kept up. Specifically, using technology into ESP curriculum enables students with several learning opportunities and benefits, ranging from interactive and communicative activities connected to their professions to methods for delivering feedback and self-evaluation in that specific context.

The study used a quasi-experimental research approach to examine the impact of incorporating technology into English for Specific Purposes (ESP) classes. The study compared two groups: an experimental group that used technological tools (such as clickers and English learning software) and a control group that followed a regular ESP curriculum with no technological interventions. Pre-tests and post-tests were used to assess changes in vocabulary acquisition, reading comprehension, and listening abilities in certain areas. The experimental group was exposed to clicker technology and English learning applications to improve their learning experience, whereas the control group relied entirely on traditional textbook and lecture-based approaches.

Clickers, also known as audience response systems, were used in the experimental group to boost student participation in classroom activities. Clickers allowed students to respond in real time to questions posed by teachers, which were then collected and presented. This gave quick feedback, allowing educators to rectify misunderstandings and adjust lessons accordingly[4]. Clickers encourage active learning and increase involvement in large or diverse classrooms. Taking advantage of these benefits, the study used clickers to measure domain-specific vocabulary and understanding. For example, students were questioned on technical words and concepts related to their disciplines, and the aggregated results served as the foundation for class discussions.

Furthermore, clickers helped to promote response anonymity, which reduced performance anxiety and fostered an environment favorable to active involvement (Kay & LeSage 2009)[5]. Their usage enabled students to participate without fear of humiliation,

[3] Dudeney, G., & Hockly, N. (2012). *How to Teach English with Technology*. Pearson.

[4] Caldwell, J. E. (2007). Clickers in the large classroom: Current research and best-practice tips. *CBE Life Sciences Education, 6*(1), 9-20. (Заполнитель1)5

[5] Kay, R. H., & LeSage, A. (2009). Examining the benefits and challenges of using audience response systems: A review of the literature. *Computers & Education, 53*(3), 819-827. https://doi.org/10.1016/j.compedu.2009.05.001

which is an important feature in facilitating learning among ESP learners of all levels of competence.

In addition to clickers, the experimental group employed mobile-friendly English learning software. These applications provide a variety of tasks aimed at improving vocabulary, grammar, and listening skills essential to ESP settings. Business students, for example, utilized applications focused on corporate communication, whereas engineering students used apps with technical terminology and listening exercises relevant to their field.

To keep students motivated, the applications included gamified learning elements like quizzes, prizes, and progress monitoring. According to Godwin-Jones (2011)[6], mobile-assisted language learning technologies are successful in increasing learner autonomy and customization. The app exercises were created to supplement classroom learning by reinforcing previously acquired ideas through self-paced, engaging forms.

Each student was given weekly objectives on the applications, such as completing vocabulary modules, practicing listening comprehension, and participating in domain-specific situations. The tracking tools in the applications enabled the teacher to assess student progress and change activities accordingly. For example, app drift analysis found that students did better in vocabulary activities that included visual assistance, which supports Kukulska-Hulme's (2012) results on the multimodal advantages of mobile technology.[7]

The control group got ESP education using typical teaching approaches such as lectures, printed materials, and guided discussions. This group served as a baseline for evaluating the efficacy of technology treatments. This group received no extra technical instruments, such as clickers or applications, which ensured the validity of the comparison results. Data collection was conducted using a mixed-methodologies strategy that included both quantitative and qualitative methods. Pre- and post-tests assessed language ability gains, and paired t-tests were used to examine the significance of differences between the experimental and control groups. In addition, surveys and semi-structured interviews were used to get student input on their perspectives of utilizing clickers and learning applications. Thematic analysis was used to identify repeating patterns in the qualitative data.

The study emphasizes the transformative influence of incorporating technology into English for Specific Purposes (ESP) lessons, exhibiting increases in student engagement and language competence. The experimental group, which used clickers and English learning apps, regularly outperformed the control group in vocabulary development, reading comprehension, and listening ability. These findings are consistent with earlier research, which indicates that technology-enhanced learning settings promote deeper engagement and improved learning outcomes[8] English learning applications enhanced these benefits by allowing pupils to practice

[6] Godwin-Jones, R. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology, 15*(2), 2-11. https://doi.org/[Insert DOI]

[7] Kukulska-Hulme, A. (2012). Mobile learning and the use of mobile devices in language learning. *ReCALL, 24*(2), 157-174. https://doi.org/10.1017/S0958344012000152

[8] Schmid, E. C., Bernard, R. M., & Borokhovski, E. (2014). Technology's effect on achievement in higher education: A meta-analysis of classroom applications. *Journal of Educational Computing Research, 51*(4), 389-412. https://doi.org/10.2190/EC.51.4.e

individually and at their own speed. The gamified components of these applications, such as leaderboards and incentives, were very motivating for students, lending credence to the idea that game-based learning encourages long-term engagement. However, app drift was noted in terms of student demands variety; while certain apps were useful for broad vocabulary and grammar practice, they lacked information suited to specific areas such as medical or engineering.

Another shift developed in how students utilized the applications. While many people completed the required assignments, several experimented with extra elements, such as chat functionality or peer challenges, to improve their collaborative learning experience. This is consistent with the findings of Kukulska-Hulme and Shield (2008), who argue that mobile applications frequently establish informal learning networks that supplement formal education. Integrating collaborative components into app design may consequently increase their usefulness in ESP scenarios.[9]

Despite the favorable findings, the study revealed certain problems. Some students had technological challenges, notably when browsing the applications or finding consistent internet connections, which hampered their learning process. Such problems replicate Stockwell's (2010) views, which underscore the need of eliminating technical hurdles to promote fair access and ongoing involvement. Future interventions might address these concerns by using more user-friendly software and offering orientation sessions to help students become acquainted with the tools.[10]

The study's findings showed that incorporating technology, notably clickers and English learning programs, into ESP lessons greatly improved students' language learning outcomes. Quantitative data analysis from pre- and post-tests revealed that the experimental group outperformed the control group in terms of vocabulary learning, reading comprehension, and listening abilities. Previous research has shown that technology-enhanced learning settings improve information retention and skill development.[11]

Quantitative results show that the experimental group outperformed the control group in all categories. For vocabulary acquisition, the experimental group's mean post-test scores grew by 24%, while the control group's improved by just 11%. Similarly, the experimental group's reading comprehension scores increased by 18%, whereas the control group's gain was just 9%. Listening skills revealed the most significant difference, with the experimental group improving by 30% compared to 10% in the control group. These findings imply that the interactive and self-paced nature of clickers and learning applications played an important role in reinforcing crucial ESP abilities, which supports Dörnyei and Ushioda's (2011)[12] findings on the motivating influence of technology in language acquisition.

Students in the experimental group expressed their enthusiasm for the participatory and engaging nature of the clicker sessions. One student commented, "The instant feedback made it easier to understand mistakes and correct them

[9] Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL, 20*(3), 271-289. https://doi.org/10.1017/S0958344008000335

[10] Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of platform. *Language Learning & Technology, 14*(2), 95-110.

[11] Hwang, G. J., Lai, C. L., & Wang, S. Y. (2015). Seamless flipped learning: A mobile technology-enhanced flipped classroom with effective learning strategies. *Journal of Computers in Education, 2*(4), 449-473. https://doi.org/10.1007/s40692-015-0043-0

[12] Dörnyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation.* Routledge.

immediately," which supports the use of clickers to improve formative assessment procedures. Another trend identified in the feedback was students' greater desire to participate in activities that required specialist vocabulary, which was most likely owing to the anonymous response system's nonjudgmental environment. The usage of English learning applications was also praised, notably for their capacity to deliver domain-specific vocabulary training. However, several students reported a misalignment between key app features and their individual learning requirements, especially in highly specialized disciplines such as medicine or engineering.

Interestingly, certain shifts were found in how pupils engaged with technology. While most students followed the mandated usage of apps and clickers, some experimented with extra app features such as forums and peer-to-peer challenges, which encouraged informal communication outside of the classroom. This unexpected behavior shows that incorporating social and collaborative components into applications might improve learning even more, as argued by Kukulska-Hulme and Traxler (2019)[13], who advocate for the inclusion of interactive features to boost student involvement.

The transformational potential of incorporating technology into English for Specific Purposes (ESP) instruction is shown by this research. Key language competences, such as vocabulary acquisition, reading comprehension, and listening skills, were significantly improved in the experimental group by using clickers and English learning programs. The effectiveness of interactive and mobile-assisted learning technologies in improving engagement and information retention is demonstrated by these findings, which are consistent with previous research.[14]

The way students modified their use of technology, frequently experimenting with elements not meant for educational reasons, was one noteworthy deviation noted during the study. For example, some students used in-app forums or participated in peer-to-peer challenges, which promoted casual communication outside of the classroom. This lends credence to the expanding understanding that social contact is a crucial element of technology-enhanced language acquisition. Such behavior suggests that in order to further take advantage of this drift and improve learning results, ESP-specific apps with integrated collaborative and interactive elements are required.[15]

Notwithstanding the generally encouraging outcomes, certain difficulties were noted, including the requirement for improved alignment between the app's content and particular ESP areas and technological problems such user interface design and accessibility. These results imply that although technology integration has a lot of promise, careful execution, intuitive design, and contextual relevance are necessary for its success.

To sum up, including clickers and English language learning apps into ESP sessions is a big step in updating language training and catering to students' unique requirements. Future studies should look at the long-term effects of these tools, especially in professional contexts, and how new technologies like artificial intelligence

[13] Kukulska-Hulme, A., & Traxler, J. (2019). *Mobile learning: The next generation.* Routledge.

[14] Reinders, H., & Benson, P. (2017). Research agenda: Language learning beyond the classroom. *Language Teaching, 50*(4), 561-578. https://doi.org/10.1017/S0261444817000192

[15] Kukulska-Hulme, A., & Lee, H. (2020). Mobile collaboration for language learning and cultural exploration. *ReCALL, 32*(2), 162-178. https://doi.org/10.1017/S0958344020000035

and adaptive learning systems might improve ESP instruction even more. Teachers can guarantee that technology keeps fostering innovation in language learning and better equips students for their specialized professions by tackling these issues and seizing new possibilities.

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