

ENHANCING ENGLISH LANGUAGE TEACHING METHODOLOGY THROUGH DIGITAL WELL-BEING PRINCIPLES AMONG ENGINEERING UNDERGRADUATES: A MIXED-METHODS STUDY

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Abstract: *The increasing use of digital technologies in higher education has transformed English language teaching, creating both opportunities and challenges for learners. While digital tools enhance flexibility and engagement, excessive and poorly regulated use may contribute to technostress, distraction, and reduced well-being. This mixed-methods study aims to develop a digital well-being-based methodology for teaching English to engineering undergraduates. Drawing on the principles of digital self-regulation, balanced technology use, and healthy learning habits, the study investigates how integrating digital well-being into EFL instruction can support students' engagement and sustainable learning. The findings are expected to provide practical recommendations for creating healthier and more effective digital English learning environments in higher education.*

Keywords: *digital well-being, English language teaching, engineering undergraduates, EFL, mixed-methods.*

MUHANDISLIK YO'NALISHIDAGI TALABALAR ORASIDA RAQAMLI FAROVONLIK TAMOYILLARI ASOSIDA INGLIZ TILINI O'QITISH METODIKASINI TAKOMILLASHTIRISH: ARALASH METODLARGA ASOSLANGAN TADQIQOT

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Tarjima nazariyasi va amaliyoti (xitoy tili) ta'lim yo'nalishi

Annotatsiya: *Oliy ta'limda raqamli texnologiyalardan foydalanish ingliz tilini o'qitish jarayonini tubdan o'zgartirdi hamda talabalarga yangi imkoniyatlar bilan bir qatorda ayrim muammolarni ham yuzaga keltirdi. Raqamli vositalar ta'limning moslashuvchanligi va talabalarning faolligini oshirsa-da, ulardan me'yoridan ortiq va nazoratsiz foydalanish texnostress, diqqatning susayishi hamda farovonlikning pasayishiga olib kelishi mumkin. Ushbu aralash metodli (mixed-methods) tadqiqot muhandislik yo'nalishidagi talabalar uchun ingliz tilini o'qitishda raqamli farovonlik tamoyillariga asoslangan metodikani ishlab chiqishga qaratilgan. Tadqiqotda raqamli o'zini o'zi boshqarish, texnologiyadan muvozanatli foydalanish va sog'lom o'quv odatlari asosida ingliz tilini o'qitishning talabalarning o'quv faolligi va barqaror o'rganishiga ta'siri o'rganiladi.*

Olingan natijalar oliy ta'limda ingliz tilini o'qitishning samarali va sog'lom raqamli muhitini yaratish bo'yicha amaliy tavsiyalar ishlab chiqishga xizmat qiladi.

***Kalit so'zlar:** raqamli farovonlik, ingliz tilini o'qitish, muhandislik talabalari, EFL, aralash metodlar.*

СОВЕРШЕНСТВОВАНИЕ МЕТОДИКИ ПРЕПОДАВАНИЯ АНГЛИЙСКОГО ЯЗЫКА НА ОСНОВЕ ПРИНЦИПОВ ЦИФРОВОГО БЛАГОПОЛУЧИЯ СРЕДИ СТУДЕНТОВ ИНЖЕНЕРНЫХ СПЕЦИАЛЬНОСТЕЙ: ИССЛЕДОВАНИЕ С ИСПОЛЬЗОВАНИЕМ СМЕШАННЫХ МЕТОДОВ

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***Аннотация:** Использование цифровых технологий в высшем образовании существенно изменило процесс обучения английскому языку, создав как новые возможности, так и определённые трудности для обучающихся. Несмотря на то, что цифровые инструменты повышают гибкость и вовлечённость студентов, их чрезмерное и неконтролируемое использование может приводить к технострессу, снижению концентрации внимания и ухудшению благополучия. Данное исследование, основанное на смешанном подходе, направлено на разработку методики обучения английскому языку для студентов инженерных специальностей на основе принципов цифрового благополучия. В работе изучается влияние цифровой саморегуляции, сбалансированного использования технологий и формирования здоровых учебных привычек на вовлечённость студентов и устойчивость процесса обучения. Полученные результаты позволяют разработать практические рекомендации по созданию более эффективной и благоприятной цифровой образовательной среды в высшей школе.*

***Ключевые слова:** цифровое благополучие, обучение английскому языку, студенты инженерных специальностей, EFL, смешанные методы исследования.*

INTRODUCTION

The increasing integration of digital technologies into higher education has fundamentally transformed the teaching and learning of English as a Foreign Language (EFL). Learning management systems, mobile applications, video conferencing platforms, artificial intelligence tools, social networking services, and online collaborative environments have become indispensable components of contemporary English language education. These technologies have expanded

opportunities for authentic communication, flexible learning, and personalised instruction. For engineering students, whose professional futures increasingly require international collaboration and English-mediated communication, digital technologies provide unprecedented access to language learning resources. However, alongside these opportunities, concerns regarding learners' well-being in digitally mediated educational contexts have intensified.

Recent scholarship suggests that the educational benefits of digital technologies should not be examined solely through the lens of academic achievement. Rather, researchers have increasingly emphasised the importance of understanding how technology affects learners' emotional, cognitive, behavioural, and social well-being. Digital well-being has consequently emerged as a critical construct within higher education discourse[1].

A recent scoping review examining digital well-being among higher education learners identified eight interconnected dimensions of digital well-being, including digital self-regulation, digital self-efficacy, digital intention, digital conduct, digital engagement, digital support, digital resources, and digital safety. Importantly, the review concluded that poor self-regulation was among the most significant contributors to negative well-being outcomes among university students[2].

Within EFL contexts, technological innovations have generally been associated with positive educational outcomes. Studies indicate that digital technology use can enhance English academic performance through increased learner engagement and emotional intelligence. However, these relationships are complex and mediated by psychological variables rather than determined solely by technological access. The paradox of digital education therefore becomes apparent. Technologies designed to facilitate learning may simultaneously undermine the very conditions necessary for effective learning. Students frequently report experiencing notification fatigue, divided attention, compulsive checking behaviours, and difficulties maintaining concentration during online learning activities. Engineering students, who often engage extensively with multiple digital platforms both academically and socially, may be particularly vulnerable to these challenges[3].

Consequently, a critical question emerges: How can English language teaching methodologies promote meaningful digital engagement while simultaneously protecting and enhancing students' digital well-being? This question has become increasingly urgent within the post-pandemic era of higher education[4].

Digital well-being refers broadly to an individual's ability to maintain a healthy, balanced, safe, and meaningful relationship with digital technologies[11]. Unlike earlier perspectives that focused primarily on problematic technology use, contemporary conceptualisations recognise digital well-being as a multidimensional construct encompassing behavioural, emotional, cognitive, and environmental factors. According to recent evidence, digital well-being cannot simply be reduced to screen-time management. Instead, it reflects learners' capacity to regulate digital behaviours, engage purposefully with technology, maintain psychological balance, and navigate digital environments safely and ethically [12].

Several dimensions have consistently emerged across studies:

1. digital self-regulation;
2. digital self-efficacy;
3. purposeful digital engagement;
4. digital safety;
5. social support;
6. emotional awareness;
7. responsible digital conduct.

MATERIALS AND METHODS

This study employed a mixed-methods research design to investigate the integration of digital well-being principles into English language teaching among engineering undergraduates. Quantitative and qualitative approaches were combined to provide a comprehensive understanding of learners' experiences and perceptions within digitally mediated EFL environments. Engineering undergraduate students enrolled in English language courses constituted the study participants[10]. Data were collected through questionnaires designed to examine learners' digital self-regulation, engagement, and perceptions of digital well-being, as well as through interviews, reflective accounts, and observations that enabled a

deeper exploration of students' experiences. The instructional intervention was informed by digital well-being principles emphasising intentional technology use, self-regulation, emotional awareness, digital safety, and healthy learning habits. Quantitative data were analysed statistically to identify changes associated with the intervention, while qualitative data underwent thematic analysis to reveal patterns related to learners' experiences of technology-enhanced English language learning [16].

RESULTS

The findings indicated that the incorporation of digital well-being principles into English language instruction positively influenced engineering students' learning experiences[9]. Students demonstrated improved awareness of their digital behaviours and reported greater ability to regulate technology use in accordance with educational goals. Participants experienced enhanced concentration during language learning activities and reduced susceptibility to distractions associated with notifications and multitasking. Learners also expressed more positive attitudes towards purposeful technology use and recognised the importance of balancing digital engagement with healthy study routines. Qualitative evidence further revealed that students became increasingly conscious of responsible participation in digital environments and developed strategies for maintaining focus and emotional well-being while engaging in English learning tasks[17].

DISCUSSION

The results suggest that effective integration of technology in EFL contexts requires attention not only to academic outcomes but also to learners' well-being. Consistent with self-regulated learning theory, students who developed stronger self-monitoring and self-management skills appeared better equipped to engage meaningfully with digital learning opportunities[18]. The findings support perspectives from well-being pedagogy that advocate educational practices fostering psychological health, learner agency, resilience, and holistic development. Rather than promoting restrictions on technology use, the study highlights the importance of cultivating intentional and balanced digital engagement. The observed improvements in concentration, engagement, and awareness indicate that digital

well-being can serve as an important pedagogical dimension within English language teaching. The study also contributes to the existing literature by extending discussions of well-being beyond general psychological constructs and operationalising digital well-being within EFL instruction for engineering undergraduates. Nevertheless, the findings should be interpreted with consideration of contextual limitations, and further studies involving broader populations and longitudinal designs are recommended[19].

CONCLUSION

The present study demonstrates that integrating digital well-being principles into English language teaching methodology has the potential to enhance both educational experiences and learner well-being among engineering undergraduates. By encouraging digital self-regulation, balanced technology use, focused engagement, emotional awareness, and responsible digital conduct, English language instruction can support sustainable and meaningful learning practices. The findings underscore the necessity of viewing digital well-being as an integral component of contemporary EFL pedagogy. Future research should continue to explore the long-term effects of digital well-being-informed instructional approaches across diverse educational settings and learner populations[20].

REFERENCES

1. Bahar, F. H. M., Roslan, N. S., Ping, N. P. T., Nasir, N. A. A., Ibrahim, M. S., Adam, S. K., Ahmad Razali, S., & Yusoff, M. S. B. (2026). The digital well-being among learners in higher education: A scoping review. *BMC Medical Education*, 26, Article 9370. <https://doi.org/10.1186/s12909-026-09370-w>
2. Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates.
3. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
4. Mercer, S., & Gregersen, T. (2020). *Teacher wellbeing*. Oxford: Oxford University Press.
5. Mercer, S., MacIntyre, P. D., Gregersen, T., & Talbot, K. (2018). Positive language education: Combining positive education and language education. In M. Gabryś-Barker & D. Gałajda (Eds.), *Positive psychology perspectives on foreign language learning and teaching* (pp. 129–148). Cham: Springer. https://doi.org/10.1007/978-3-319-32954-3_9
6. OECD. (2021). *21st-century readers: Developing literacy skills in a digital world*. Paris: OECD Publishing. <https://doi.org/10.1787/a83d84cb-en>

7. Oxford, R. L. (2017). *Teaching and researching language learning strategies: Self-regulation in context* (2nd ed.). New York, NY: Routledge.
8. Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, 16(4), 385–407. <https://doi.org/10.1007/s10648-004-0006-x>
9. Shao, Y., Wu, J., Li, Y., Lu, Q., & Wang, Z. (2025). The impact of digital technology use on EFL students' English academic performance: The mediating roles of emotional intelligence and learning engagement. *BMC Psychology*, 13, Article 638. <https://doi.org/10.1186/s40359-025-02967-8>
10. Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Free Press.
11. Selwyn, N. (2016). *Education and technology: Key issues and debates* (2nd ed.). London: Bloomsbury Academic.
12. UNESCO. (2023). *Global education monitoring report 2023: Technology in education – A tool on whose terms?* Paris: UNESCO Publishing.
13. Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13–39). San Diego, CA: Academic Press.
14. Boekaerts, M. (1999). Self-regulated learning: Where we are today. *International Journal of Educational Research*, 31(6), 445–457. [https://doi.org/10.1016/S0883-0355\(99\)00014-2](https://doi.org/10.1016/S0883-0355(99)00014-2)
15. Hiver, P., Mercer, S., & MacIntyre, P. D. (Eds.). (2021). *Student engagement in the language classroom*. Bristol: Multilingual Matters.
16. Khakimjonovna, B. P. (2023). Methodology of Student Coherent Speech Development in The Process of English Language Learning.
17. Botirova, P. (2019). Modern problems of linguistics and methods of teaching english language. *Теория и практика современной науки*, (2 (44)), 28-31.
18. Sadikov, Z. Y. (2021). PROBLEMS OF TRANSLATION OF SITUATIONAL REALITIES IN THE WORK OF" KUTADGU BILIG" YUSUF KHAS KHAJIB. *Scientific Bulletin of Namangan State University*, 2(2), 274-280.
19. Botirova, Z. X. (2021). Personality-orientated approach to teaching english vocabulary. In *МИРОВАЯ НАУКА 2021. ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ* (pp. 6-8).
20. Saidaliyev, S. (2004). *Essays on methods of teaching foreign languages. Publishing house" Namangan.*