

A CONCEPTUAL PAPER: THE EFFECT OF USAGE OF MODERN TECHNOLOGY ON ENGLISH LEARNING EFFICIENCY FOR NON- ENGLISH MAJOR UNIVERSITY STUDENTS IN JIANGXI, CHINA

Zhang Meng, Wong Siew Ping and Ng Mindy

Abstract – Educational institutions have begun using digital tools and resources to help students learn a new language because of the rapid development of technology. The impact of these methods on language learning, however, is still up for discussion. The cutting-edge tools have the potential to significantly improve English education in Jiangxi; nevertheless, they also bring challenges that are not seen elsewhere. Challenges such as motivation, access to quality resources, the digital gap, a lack of face-to-face connection, and concerns about education quality need to be addressed in order to ensure that technology is used successfully and efficiently in English language teaching. Students in Jiangxi will be able to improve their English language abilities and their education once they overcome these challenges and are able to make greater use of the digital resources that are available to them. Findings from this research can help teachers and policymakers think critically about how they might use technology to improve their students' English language skills. Past research suggests that studying second language learning motivation is difficult, and students' second language community views and communicative needs explain this. Goals require study and drive. Motivated students learn socio-educational model divides motivation into effort, desire, and result.

Keywords – Modern technology, English Learning, University students, Jiangxi China.

I. INTRODUCTION

Various technologies can help in enabling the smart learning process without the need for physical presence of an instructor. Some specific plan of operations marks the continuous analysis of technology like video conferencing tools, remote access of the system using the Internet, online available documents and videos, and a portal for effective communication and access. The improvement of the technologies like cloud computing and big data technology has helped in enabling users to access information from any place. The professors and instructors can convey their teaching materials and deliver online classrooms using the technology of cloud computing, internet connectivity, and big data platforms.

Zhang Meng, City University Malaysia, Jiangxi University of Science and Technology (zhangmeng@jxust.edu.cn).

Wong Siew Ping, City University Malaysia (wong.siewping@city.edu.my).

Ng Mindy, Multimedia University (mindy@mmu.edu.my).

With the advent of technology and better-integrated platforms, global business development has become possible (Cedano & Hernández-Granados, 2021).

Several companies like Apple, Amazon, Microsoft, Google, and many more are establishing their office branches in several locations, including China. It has increased the job opportunities for the Chinese or regional people in those companies. On the other hand, there are students from China shifting to English-speaking countries for better work opportunities and working in offices of these global giants. In both situations, the students need to understand and be able to communicate well in English. English has been considered a global language for communication worldwide (Rao, 2019). The communication medium -- English is required for all the students so that it provides them with an opportunity to convey their thoughts globally. The specific plan of work is managed with the respective identification of the communication channel of English as primitive needs. English language communication is very effective for identifying and considerable alignment of the operations for keeping controlled functional management.

In China, students face several issues while learning English as a secondary language in the universities of China (Rao, 2019). The effective identification of the issues helps develop mitigation strategies for the problems faced by the students. The major issue for which the students need modern technology for studying is the impact of the COVID-19 pandemic. The advent of the COVID-19 pandemic has resulted in shaking the entire education system. The growing cases and death tolls have resulted in imposing social distancing and lockdown in several regions. Hence, the universities were forced to conduct online education so that the students can learn from their homes. The online platform has been used by several universities all over the globe, and it has resulted in impacting the flow of learning among the students. The transmission of learning platforms from offline to online is required for maintaining the pandemic norms and regulations.

The improvised challenges of the students include the lack of practice and time needed for practical learning speculation. The identification of the practices for improving translation and pronunciation needs the use of effective applications based on modern technology (Agarwal & Chakraborty, 2019). These technologies are required for building a self-assessment of the students who are studying online for practice set development. The students can practice these software applications to

identify their flaws and develop an improvement study plan. Technology enables teachers to adapt classroom activities, and thus enhancing the language learning process. Technology continues to grow in importance as a tool to help teachers facilitate language learning for their learners. In the acute situation of the pandemic, the advent of technology in the English learning helps the students to make efficient growth in their language learning procedure. The students did not have to face any negative circumstances regarding the pandemic that can stop their learning process.

II. PROBLEM STATEMENT

Due to the Covid-19 pandemic, study procedures have changed a lot, and it had made a great impact on the way of learning. Students need to study online using the internet-based platform to learn English as a secondary language (Sriwichai, 2020). According to (Zhou et al., 2022), there are some drawbacks of using modern technology that can hinder the flow of learning for students studying English as a second language with the help of online platforms. (Zainudin et al., 2022) identified some problems that the students face while studying without the means of proper technology. The problem includes a lack of knowledge about the technology, and it is very common among the students. Besides the lack of knowledge, the dependency on network connectivity is a major flaw in using modern technology (Kurniasanti et al., 2019). The online platform is always marked with issues of network connectivity problems. The dependency on the internet-based platform is always subjected to the issues of effective media platforms. The hindrance can impact the flow of information at the learning platform for the students and ensure the corrective measures for managing the control of operations. In addition, the vast majority of students who do not major in English do not have an interest in making use of technology in the classroom (Zainudin et al., 2022). This is mostly due to a lack of knowledge in making use of such technology, as well as time restrictions and stringent college requirements.

The students who are unable to understand the application software completely cannot troubleshoot the problems faced during the utilisation (Rasheed et al., 2020). Besides, when students are not able to operate the technology properly, they are not productive in managing their learning materials and processes. In addition, network connectivity issues cause students inaccessible to the information and lectures online (Zainudin et al., 2022). The students who cannot understand English are not able to comprehend the communication language of the apps being used. Technology can be a great tool for learning English, but it can also lead to over-reliance on technology. This can lead to a lack of practice in speaking and writing English, as well as a lack of understanding of the nuances of the language. Technology can also lead to poor grammar in English (Hassan et al., 2021). With the ease of auto-correct and spell-check, many people rely on these tools to correct their grammar, without understanding the grammar rules. Technology can also lead to a lack of interaction with native English speakers. This can lead to a lack of understanding of the nuances of

the language, as well. Some learners may not have the motivation to learn English due to a lack of interest or a lack of understanding of the importance of learning English (Mudra, 2020). Some learners may not have the time to dedicate to learning English due to other commitments or a lack of organization. Some learners may not have the confidence to speak English due to a fear of making mistakes or a lack of self-belief. Some learners may not be able to focus on learning English due to distractions or a lack of concentration. Students may lack the motivation to learn English if they do not see the value in it or if they are not achieving the desired academic results. Poor study habits, such as not studying regularly or not studying enough, can lead to a lack of progress in English learning. Students may not have access to the necessary resources, such as textbooks, online courses, or tutors, to help them learn English effectively. Students may have difficulty understanding English due to their native language or lack of exposure to the language.

Students in China who do not major in English face significant challenges while attempting to acquire proficient English language skills. The severity of the issue is still present in many parts of China, particularly those with the highest population density. In order to address these concerns, the administrations of colleges and schools have implemented a number of new laws and policies (Van Nuland et al., 2020). Online group or class discussions have been included into the curriculum in order to facilitate the acquisition and learning of English language. However, students have not given a great deal of attention to the many online short-term courses that have been produced by educational institutions to enhance English language skills (Ferri et al., 2020). The online courses and classroom activities could have been helpful for students who were not majoring in English, but ultimately they were all for nothing (Selvaraj et al., 2021). Having said that, many students who do not major in English find the language to be an extremely strange language to master, especially when the learning involves technology. As a direct consequence of this, the problem persists, and learning English with technology offers challenges.

III. LITERATURE REVIEW

This chapter focuses on the discussion of the usage of technology for learning and English learning efficiency. There are still many instructors who do not take full use of the numerous advantages that ICT may offer with regard to teaching and learning. In some circumstances, this applies to the entire school. The reasons are numerous and varied; however, regardless of whether it is due to apprehension regarding emerging technologies, an absence of resources, erroneous ideas regarding usefulness, or even, in some instances, apathy regarding embracing change, the people who are losing out the most are the technology-shy themselves; as a consequence, the students in their classrooms are not being given the best possible opportunities to succeed.

In the same way as the age range of different generations (things like boomers, Generation X, and millennials) varies depending on who you receive the

information from, there is also variation in the activity levels of the various web versions. For instance, some sources place Web 1.0 in the years 1990 to 2000, Web 2.0 in the years 2000 to 2010, and Web 3.0 in the years 2010 and beyond.

It is also possible to state that Web 1.0 assisted people in finding things online more effectively, Web 2.0 made it possible for people to have better experiences, and Web 3.0 assisted individuals in producing more effective online content. The "old" Internet, also known as Web 1.0, is undoubtedly familiar to Internet users who have been using the Internet for a considerable amount of time, and since Web 2.0 is the current industry standard, everyone has encountered it in some form or another. There are bits and pieces of Web 3.0 scattered throughout, but the new version of the web has not yet been released in its whole (Lacity & Lupien, 2022).

Analogy is the method that yields the most accurate results when comparing Web 1.0 with Web 2.0 (Murray et al., 2023). Suppose someone lends another person a book to read and hands it to him. He is able to read it, but unable to alter any of the words that are contained within it. That's how Web 1.0 worked back in those days. On the other hand, if someone were to hand him a different book along with a red editor's pencil and told him that besides reading the book, he could also use the pencil to make changes or additions to it, then that would be Web 2.0.

Therefore, in short, information found on Web 1.0 cannot be edited, however information found on Web 2.0 can. Web 1.0 is a static version of the Internet that only contains linear information, while Web 2.0 is a dynamic version of the Internet that includes non-linear information. Text that must be read in the customary fashion of a line, beginning at the first sentence and proceeding to the last, is an example of linear information. A non-linear narrative, on the other hand, does not impose such constraints and can be read by the reader in whatever sequence they see fit (Aydemir & Baroni, 2022). The Web in its version 1.0 iteration is a static entity, but the Web in its version 2.0 iteration is a dynamic entity. After that, researcher reintroduce Web 3.0 into the equation and examine how it elevates the level of the overall user experience.

There is evidence that employing Wiki technology may help EFL students improve their writing, as shown by a study of EFL students in a college writing class. Students were encouraged to contribute to a Wiki page in which they could share their own writing and get feedback from their peers (Li, 2019). According to the study's participants, one advantage of adopting this technology is getting instantaneous responses from teachers. According to the participants, reading the essays of their peers was a great way to improve their own knowledge of grammar, spelling, and vocabulary. Another research looked at how future educators felt about using technology in their math classes. Findings suggest a beneficial impact on students' mathematical knowledge. The in-service educators remarked that the internet offered arithmetic tasks for a variety of skill levels, allowing students to work at whatever level was most appropriate for them. Students participated actively in the technology-enhanced math sessions, and there was post-lesson discussion about the

concepts covered. Teachers were taken aback by their students' impressive memorization of the material. Some students who took part in the courses said they could follow along with the instructor better because of the computer. Math classes may be made more engaging and interactive with the use of technology.

The results of a different research showed that student interest and motivation may be boosted when teachers use technology and have their students debate books with one another. Wikis, online literature circles, and online book clubs are all examples of the technology utilised in these virtual book clubs and other small group discussions of literature (El-Esery, 2023). Students in one location might share their writing with readers in another location, state, or even country, thanks to these technological advancements. By using this kind of technology, educators may provide pupils with a measurable and inspiring means of gaining exposure to and understanding of cultures and perspectives outside of their own. These virtual book clubs may help people connect with one another and encourage constructive dialogue.

With the help of social software, exciting new avenues have opened up for creating collaborative learning settings, and wireless networks have made it possible to set up such spaces wherever they are required. Blended learning encompasses a wide variety of approaches to combining traditional classroom instruction with digital resources. The simplest model of blended learning is the thoughtful integration of classroom face-to-face learning experiences with online learning experiences (Zhang, 2020) with the goal of capitalising on both the synchronous nature of face-to-face situations and the asynchronous, text-based nature of the Internet. This often entails a combination of in-person instruction (lecturing) with online resources (such as Moodle) and homework (studying). The use of many pieces of social software as resources for facilitating the creation of content, the presentation of information, and the exchange of ideas (Wang, 2019). Students of the "net generation" often have extensive experience with various forms of social media. Therefore, from the perspective of blended education, social media platforms have exciting prospects for facilitating student-centered, cooperative learning. In addition, social media platforms do not need users to download any additional software to operate.

Online learning, the use of technology for learning, and communication are all important factors that influence the learning strategies of university students. Online learning involves using digital platforms and resources to facilitate learning outside the traditional classroom setting. Technology use for learning includes computers, laptops, tablets, educational software, mobile applications, and internet resources. Communication is the exchange of information, ideas, and thoughts among individuals. The study investigates how effective communication, both in face-to-face and digital communication channels, impacts critical thinking skills and subsequently influences the selection and implementation of learning strategies. The dependent variables are reading, writing, and oral skills of university students. The IVs of online learning, technology use for learning, and communication are expected to influence the

adoption of critical thinking skills and subsequent learning strategies.

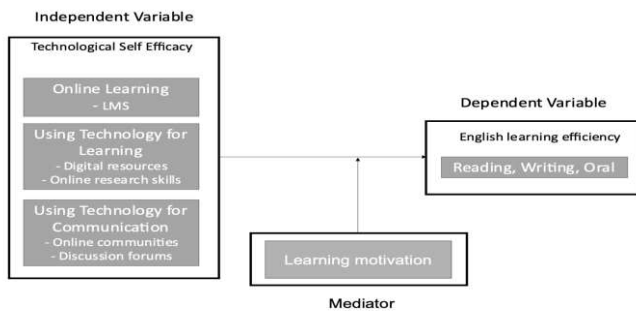


Figure 1: Conceptual Framework

IV. METHOD

It is proposed to use a quantitative method to investigate the effects of modern technology on English learning efficiency for non-English major students in universities in China. We will explain a research-based technique to build a data collecting plan on how contemporary technology affects English learning for non-English majors at Chinese universities. Specify the study's main question. This study would examine how Chinese non-English major college students utilise technology to enhance their English. We wish to search all relevant publications and research. This technique helps analyse knowledge, identify gaps, and identify relevant theoretical frameworks. The literature review will inform the research hypotheses. The investigation should make these hypotheses sensible and testable.

For instance, in the use of modern technology in English learning improves students' language proficiency and motivation, we will choose which non-English major Chinese university students to study. This can be done through surveys, exams, in-depth interviews, or attentive observation. We will do research and collect data from the target subjects. Surveys, interviews, and tech-enhanced English lessons may be included as well. Before gathering data, we will address the ethical issues including informed permission. Data will be analysed using statistical or qualitative approaches, and it will be evaluated for themes, trends, and correlations related to the research topic and hypotheses.

The quantitative research and survey method are appropriate for this study because these are ideal since they are cheap, adaptable, and permit data collection from a sizable sample. Quantitative research and surveys are appropriate for this study because they allow the researcher to collect data that can be analyzed and interpreted in a systematic way.

The population is about 100,000 students, both male and female in China universities in Jiangxi (Wu et al., 2020). The sample will be calculated using Krejcie and Morgan sample size table which is mentioned below. According to Krejcie and Morgan formula, 384 participants will be selected. The probability sampling will be used in this study. The study will use stratified random sampling to select a sample of university students in Ganzhou, China. The target population will be divided into relevant strata based on academic disciplines, and a random sample will

be selected from each stratum. Participants will be informed about the study's objectives and procedures, and participation was voluntary and ethical considerations were considered.

To collect information for the study about impact of modern technology on English learning efficiency for non-English major students in Jiangxi universities of China, a questionnaire will be used. Questions will be designed to be as clear and concise as possible and should be tailored to the specific research topic. The questionnaire will include instructions on how to complete it, such as how to submit the questionnaire, what information is required, and any other relevant details. The questionnaire will include questions related to the topic such as Section 1 will consist of demographic information, Section 2 to measure the IV, technological self-efficacy, Section 3 to measure the DV, English learning efficiency. Descriptive survey analysis will be used for the study on impact of modern technology on English learning efficiency for non-English major students in China universities.

A pilot study of 30 participants will be conducted to assess the reliability of the questionnaire. Descriptive survey analysis will be used for the study on impact of modern technology on English learning efficiency for non-English major students in China universities. As a result of having well-defined and organised research instruments, study subjects, and important variables, the researcher is able to generate data utilising standardised data collection methods (Bloomfield & Fisher, 2019).

The one-sample t-test, analysis of variance, and structural equation modelling are the primary statistical approaches used for analysing the data and producing conclusions. Descriptive statistics, such as frequency counts and percentages, were employed to examine the survey results. Frequency counts and percentages were utilised to investigate the demographic questions and variables using descriptive statistics.

REFERENCES

- Agarwal, C., & Chakraborty, P. (2019). A review of tools and techniques for computer aided pronunciation training (CAPT) in English. *Education and information technologies*, 24, 3731-3743.
- Aydemir, B., & Baroni, R. (2022). Beyond the Shadow of Z: Non-Linear Reading and Experimental Approaches to Comics. *Comicalités. Études de culture graphique*.
- Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association*, 22(2), 27-30.
- Cedano, K. G., & Hernández-Granados, A. (2021). Defining strategies to improve success of technology transfer efforts: An integrated tool for risk assessment. *Technology in Society*, 64, 101517.
- El-Esery, A. M. (2023). Implementing virtual literature circles for developing English learners' vocabulary acquisition and reading

- comprehension. *International Journal of English Language and Literature Studies*, 12(2), 74-85.
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86.
- Hassan, I., BaraU Gamji, M., Yahaya Nasidi, Q., & Latiff Azmi, M. N. (2021). Challenges and benefits of web 2.0-based learning among international students of English during the Covid-19 pandemic in Cyprus. *Arab World English Journal*.
- Kurniasanti, K. S., Assandi, P., Ismail, R. I., Nasrun, M. W. S., & Wiguna, T. (2019). Internet addiction: a new addiction? *Medical Journal of Indonesia*, 28(1), 82-91.
- Lacity, M. C., & Lupien, S. C. (2022). *Blockchain Fundamentals for Web 3.0*. University of Arkansas Press.
- Li, J., & Cummins, J. (2019). Effect of using texting on vocabulary instruction for English learners.
- Mudra, H. (2020). Digital literacy among young learners: How do EFL teachers and learners view its benefits and barriers? *Teaching English with Technology*, 20(3), 3-24.
- Murray, A., Kim, D., & Combs, J. (2023). The promise of a decentralized internet: What is Web3 and how can firms prepare? *Business Horizons*, 66(2), 191-202.
- Rao, P. S. (2019). The role of English as a global language. *Research Journal of English*, 4(1), 65-79.
- Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, 144, 103701.
- Selvaraj, A., Radhin, V., Nithin, K., Benson, N., & Mathew, A. J. (2021). Effect of pandemic based online education on teaching and learning system. *International Journal of Educational Development*, 85, 102444.
- Sriwichai, C. (2020). Students' Readiness and Problems in Learning English through Blended Learning Environment. *Asian Journal of Education and Training*, 6(1), 23-34.
- Van Nuland, S., Mandzuk, D., Tucker Petrick, K., & Cooper, T. (2020). COVID-19 and its effects on teacher education in Ontario: a complex adaptive systems perspective. *Journal of Education for Teaching*, 46(4), 442-451.
- Wang, P. (2021). Connecting the parts with the whole: Toward an information ecology theory of digital innovation ecosystems. *Mis Quarterly*, 45(1).
- Wu, L. T., Shen, Y. F., Hu, L., Zhang, M. Y., & Lai, X. Y. (2020). Prevalence and associated factors of metabolic syndrome in adults: a population-based epidemiological survey in Jiangxi province, China. *BMC Public Health*, 20, 1-10.
- Zainudin, M. I. S., Subari, K., Aripin, M. A., Arshad, B., Mustafa, Z., Yusof, N. M., Magiman, M. M., & Anal, A. (2022). A study of how well online teaching and learning methods work for students at universities and colleges. *NeuroQuantology*, 20(12), 1938.
- Zhang, R. (2020). Exploring blended learning experiences through the community of inquiry framework. *Language Learning & Technology*, 24(1), 38-53.
- Zhou, S., Zhu, H., & Zhou, Y. (2022). Impact of Teenage EFL Learners' Psychological Needs on Learning Engagement and Behavioral Intention in Synchronous Online English Courses. *Sustainability*, 14(17), 10468.