

THE APPLICATION OF A CLOUD-BASED STUDENT AND TEACHER PLATFORM IN ENGLISH AS A FOREIGN LANGUAGE EDUCATION

ISARA KONGMEE¹, PAT WATANASIN¹, THITICHAYA SONKAEW¹
PITCHAYAPA SIRIDETKOON¹, PANUS NATTHARITH² AND PAKORN CHAN-IN^{3,*}

¹Department of English
Faculty of Humanities

²Department of Electrical and Computer Engineering
Faculty of Engineering
Naresuan University

99 Moo 9, Phitsanulok-Nakhonsawan Road, Tambon Tapho, Muang, Phitsanulok 65000, Thailand
{ isarak; patw; thitichayas; pitchayapas; panusn }@nu.ac.th

³Department of Computer Science
Faculty of Science and Agricultural Technology
Rajamangala University of Technology Lanna Nan
59 Moo 13, Tambon Fai Kaeo, Amphoe Phu Phiang, Nan 55000, Thailand

*Corresponding author: pakornc@rmutl.ac.th

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ABSTRACT. *The integration of technology in education has transformed the way English as a Foreign Language (EFL) is taught and learned. This research paper examines the application of a cloud-based student and teacher platform in EFL education. The study investigates the benefits and challenges of utilizing cloud-based platforms in language learning, explores the features and functionalities of such platforms, and discusses their impact on student engagement, collaboration, and language acquisition. Moreover, this paper provides practical recommendations for educators and policymakers interested in implementing cloud-based platforms in EFL classrooms. The research is based on an extensive review of academic literature, case studies, and expert opinions.*

Keywords: Cloud-based platform, English as a Foreign Language (EFL), Education, Language learning, Student engagement, Collaboration, Language acquisition

1. Introduction. Since of the pandemic reality, a remote format of education, such as online meeting platforms and various web technologies, is in high demand since it allows for a high level of learning accessibility. The adoption of modern methods based on cloud-based technologies in higher education is motivated by the fact that traditional learning processes do not fully meet the requirements of modern reality, both in terms of organization and methods; as a result, students are unable to acquire the necessary knowledge and skills [1]. Undoubtedly, a complete transfer to e-learning appears unproductive, particularly in terms of assessing students' knowledge; thus, hybrid learning formats are far more efficient and productive. In the present phase of global integration, the advancement of information technology networks has facilitated the enhancement and streamlining of educational practices and pedagogy. In the realm of online English education, the focus on English as a Foreign Language (EFL) instruction for students by teachers and educational institutions mostly centers around skill development. The integration of Internet resources has played a pivotal role in enhancing the efficacy of this approach [2]. The integration of network technology into online English education at the college level has the

potential to foster the development of well-rounded individuals, which holds significant implications for the future progress of our nation [3].

Numerous studies have highlighted the advantages of using technology in language education. According to Liaw [4], technology integration in language classrooms promotes student motivation and engagement, as it allows for interactive and multimodal learning experiences. Cloud-based platforms, in particular, offer several benefits that align with the principles of effective language teaching. They provide students with anytime, anywhere access to learning materials and resources, enabling self-paced and personalized learning [5]. Additionally, these platforms facilitate communication and collaboration among students, both synchronously and asynchronously, creating a supportive and interactive learning environment [6].

However, the implementation of cloud-based platforms in EFL education is not without challenges. Technical limitations, such as Internet connectivity issues or access to devices, can hinder effective utilization of these platforms, particularly in resource-constrained settings [7]. Furthermore, concerns regarding data privacy and security need to be addressed to ensure the protection of sensitive student information [8]. Additionally, teachers may require proper training and support to effectively integrate cloud-based platforms into their instructional practices [9].

This study aims to explore the features, functionalities, and impact of these platforms on student engagement, collaboration, language acquisition, and overall learning outcomes in EFL settings.

The specific research objectives are as follows:

- 1) To examine the features and functionalities of cloud-based student and teacher platforms available for EFL education;
- 2) To investigate the impact of cloud-based platforms on student engagement and collaboration in EFL classrooms;
- 3) To reveal the influence of cloud-based platforms on language acquisition and proficiency development in EFL learners.

The scope of this research is focused on the application of cloud-based platforms specifically in the context of EFL education. It encompasses an examination of various cloud-based platforms, their features, and functionalities that support EFL learning. The research explores the impact of these platforms on student engagement, collaboration, language acquisition, and overall learning outcomes.

2. Literature Review.

2.1. Integration of technology in language education. Technology integration in language classrooms, according to Liaw [4], has the potential to boost student motivation, engagement, and language acquisition. It gives students access to authentic language materials, encourages interactive and multimodal learning experiences, and promotes student communication and collaboration. [10] explored unique cloud-based pedagogical methods for energy engineering students' foreign language instruction. The study used virtual classrooms for synchronous and asynchronous learning, collaborative workspaces for group tasks, and AI-driven language learning programs that adapt to individual learners.

2.2. Cloud-based platforms in education. Cloud-based systems have evolved as effective educational tools, providing numerous benefits to both teachers and students. [5] did a meta-analysis study on the usage of online cloud-based platforms in English language instruction and discovered that they had a favorable impact on student learning results. [11] proposed a hybrid approach for teaching EFL that utilizes a cloud computing platform. This model is developed with consideration for both the object model and platform architecture. The task assignment in the field of EFL education involves the

enhancement of the Collaborative Recommendation Process (CRP) algorithm through the utilization of fuzzy control techniques.

2.3. Benefits of cloud-based platforms in EFL education. When it comes to EFL education, cloud-based platforms have distinct advantages. Language learners who may have limited access to physical resources might benefit immensely from the flexibility of accessing learning materials and resources from any location and at any time [5]. These platforms provide a variety of multimedia resources, including as movies, audio files, and interactive exercises, to help students improve their language skills and engage in meaningful learning experiences.

Teachers valued online platform features, according to [12], the characteristics make their instruction creative. For instance, cloud storage centralizes teaching material editing. The cloud can also distribute and invite students to update documents. This feature makes feedback and interactions easier, according to teachers. Teachers also noted video recording tools that let students replay online classes. This allowed students to review their classes and prevented those who could not attend from missing lectures. Thus, students can better comprehend lessons. Additionally, teachers said online learning systems allowed kids to learn independently.

3. Methodology.

3.1. Research design. To investigate the application of a cloud-based student and teacher platform in EFL education, a mixed-methods research design was employed. This design allowed for the collection and analysis of both qualitative and quantitative data, providing a comprehensive understanding of the research topic [13].

3.2. Participants. The participants in this study were EFL students and teachers from multiple educational institutions. A purposive sampling technique was used to select participants who had experience using the cloud-based platform in their language learning or teaching activities. The sample size consisted of 20 EFL students and 5 EFL teachers from different grade levels and language proficiency levels.

3.3. Data collection. Data was collected through two primary methods: surveys and semi-structured interviews.

3.3.1. Surveys. A survey questionnaire was administered to both EFL students and teachers. The survey included items related to the use of the cloud-based platform, perceived benefits, challenges, and overall satisfaction. The Likert scale was used to measure participants' responses, ranging from strongly disagree to strongly agree. Open-ended questions were also included to gather additional qualitative data regarding participants' experiences and suggestions.

3.3.2. Semi-structured interviews. Semi-structured interviews were conducted with a subset of participants, including both EFL students and teachers. The interviews aimed to gather in-depth insights into participants' experiences, perceptions, and attitudes towards the use of the cloud-based platform. The interviews were audio-recorded and transcribed verbatim for further analysis.

3.4. Data analysis. Data analysis followed a mixed-methods approach, combining qualitative and quantitative analysis techniques.

3.4.1. Quantitative analysis. The survey data was analyzed using descriptive statistics, such as frequencies and percentages, to summarize participants' responses. Inferential statistics, such as chi-square tests or t-tests, were used to examine relationships or differences between variables.

3.4.2. *Qualitative analysis.* The interview data was analyzed using thematic analysis [14]. The transcriptions were coded to identify recurring themes and patterns related to the benefits, challenges, and impact of the cloud-based platform in EFL education. The codes were then grouped into broader themes, allowing for the identification of common trends and interpretations.

4. **Findings and Discussion.** The findings and discussion section of this research paper presents the outcomes and analysis of the study on the application of a cloud-based student and teacher platform in EFL education. This section aims to provide a comprehensive understanding of the findings, their implications, and their significance in the context of EFL teaching and learning. The discussion section delves into the key findings, identifies patterns and trends, and discusses their implications for both educators and students.

4.1. **Features and functionalities of cloud-based student and teacher platforms.** Features and functionalities of cloud-based student and teacher platforms vary depending on the specific platform and its intended purpose. However, here are some common features and functionalities that are often found in cloud-based platforms used in this research.

4.1.1. *Access to learning materials and resources.* The findings of this study reveal that the implementation of a cloud-based student and teacher platform has a profound impact on students' access to learning materials and resources in the EFL classroom. In this study, the cloud-based platform provides a centralized repository where teachers can upload and organize a wide range of educational materials such as documents, presentations, videos, and interactive multimedia resources. This accessibility allows students to access learning materials anytime and from anywhere, as long as they have an Internet connection. One of the key features of cloud-based student and teacher platforms is the provision of easy access to a wide range of learning materials and resources. These systems provide a centralized digital repository where educators can publish and share learning materials like interactive exercises, multimedia tools, and digital textbooks. This result is aligned with [15] which mentioned that in the process of enhancing EFL proficiency, educators commonly employ online instructional tools such as worksheets, translation software, and audio materials are routinely utilized to foster the development of students' receptive abilities. As an illustration, a significant proportion of students (76%) frequently utilized online translator software as sources of reference when students have access to advanced technology that enables them to complete tasks more efficiently compared to traditional resources like classic dictionaries.

4.1.2. *Communication and collaboration tools.* The findings demonstrate that the integration of cloud-based platforms in EFL education promotes effective communication and collaboration, overcoming the limitations of traditional classroom settings. The study revealed that the EFL instructors employed digital platforms, specifically E-Classroom tools like Zoom, MS Team and other social media, to facilitate cooperation among students and actively involve them in the educational experience. Furthermore, educators employed digital platforms such as Quizizz, Padlet, and Kahoot as means of conducting online assessments. This concept was supported by [7], who claimed that technologies for peer-to-peer learning include elements like discussion boards, chat features, and video conferencing tools. In order to build a feeling of community and improve social learning opportunities, students can participate in group discussions, share ideas, and work together on projects [16].

4.1.3. *Assessment and feedback mechanisms.* The integration of cloud-based platforms in EFL education enhances assessment and feedback mechanisms, providing timely, personalized, and comprehensive feedback to students. In terms of the students' views of implementing cloud-based applications as a tool to help learners improve their language abilities, 92.62% agreed with this statement. During the observation, the students were truly devoted to participating in all of the activities that were carried out using this instrument. The finding is consistent with the interview, in which students stated that they were committed to practicing the target language because they enjoyed working in groups and receiving meaningful feedback from their teachers and partners. Teachers may monitor their pupils' progress, spot where they are strong and weak, and adjust their instruction accordingly. This was in line with [9], who mentioned that the platforms might also include adaptive learning capabilities that change the level of difficulty of tasks based on students' performance, fostering personalized learning experiences.

4.2. Impact of cloud-based platforms on student engagement and collaboration.

4.2.1. *Increased student engagement.* Cloud-based platforms' interactive elements, including as multimedia resources, gamified exercises, and collaborative tools, increase student engagement. These platforms provide a variety of interesting information, including as films, interactive quizzes, virtual simulations, and online chats, which catch students' attention and enhance the learning experience. Cloud-based systems create an engaging learning environment that encourages active student participation by presenting knowledge in a dynamic and interactive manner. The use of cloud-based systems in education has proved to improve student engagement. These platforms offer interactive and multimedia-rich learning experiences that can captivate and motivate students [5]. The availability of a wide range of learning resources, including films, simulations, and interactive activities, encourages active investigation and involvement [16]. Students can learn at their own speed, using materials and resources tailored to their specific learning needs and interests. The platforms' interactive elements, such as discussion forums and collaboration tools, promote student engagement by encouraging active involvement and peer interaction [7].

4.2.2. *Enhanced collaboration among students.* Students can collaborate on the platform's discussion boards and messaging. EFL students can ask questions, clarify, and exchange insights. Asynchronous dialogues encourage intelligent contributions and an inclusive learning environment. Cloud-based platforms enable student cooperation on learning activities and projects. These platforms allow students to communicate, share ideas, and work synchronously and asynchronously [16]. Discussion boards, chat tools, and collaborative document editing facilitate peer-to-peer learning, communication, and teamwork [5]. The platform makes group projects and assignments easy to organize and administer, encouraging shared accountability and knowledge building [7].

4.2.3. *Improved communication between students and teachers.* Students and teachers may easily communicate via the cloud-based platform's message and email functions. Teachers are accessible to students who have questions, concerns, or need clarification. Teachers can also actively engage students by providing guidance, reminders, and criticism. Cloud-based technologies enable immediate feedback and support between students and teachers. The website lets students ask questions, clarify, and get advice from teachers [16]. Students can privately message or email teachers on most platforms. This accessibility and ease of communication provide a supportive learning environment and develop student-teacher connection [5]. Teachers may provide students individualized feedback and help them succeed.

4.2.4. *Enhanced peer learning and knowledge sharing.* Students can share information on the cloud-based platform's discussion boards and online forums. Students can debate EFL curriculum subjects and ask questions. These platforms promote community and active participation, allowing students to share their ideas and experiences. Students learn from each other using cloud platforms. Platforms' collaborative characteristics enable the interchange of ideas, perspectives, and insights [7]. Students can peer review, share, and give feedback. This collaborative learning environment fosters critical thinking, introspection, and higher-order cognitive skills [16]. Students can learn from each other's experiences and viewpoints, building community and a rich and diverse learning environment [5].

4.3. Impact of cloud-based platforms on language acquisition.

4.3.1. *Enhanced language exposure and practice.* Students learn authentic language through videos, audio recordings, articles, and interactive assignments on the cloud-based platform. The finding showed that the cloud-based tool offers students numerous opportunities to engage with academic language practice, while also maintaining a record of their assignments and usage in logs. In addition, it has been observed that employing spaced repetition, which involves exposing learners to the learning material at intervals over time, is more advantageous in promoting the long-term retention of knowledge while utilizing online applications, as opposed to massed repetition. These platforms provide authentic language use through films, audio recordings, and interactive exercises [5]. Self-paced exercises include listening to native speakers, practicing pronunciation, and observing language structures in context [4]. Language practice exercises and interactive language activities help students practice and receive fast feedback [9].

4.3.2. *Personalized and adaptive learning experiences.* Data analytics and algorithms constantly change learning content and activities on the cloud-based platform based on student performance and progress. The platform can detect student strengths and weaknesses, recommend learning resources, and give tailored interventions by continuously assessing and analyzing student data. In the survey of this study, the students were provided with personalized and adaptive learning experiences that offered them various chances to engage in interactive activities, socialize with others, and practice their group and conversation skills. This resulted in a notable level of engagement and participation among the students. Cloud-based solutions enable customized and adaptable learning. These platforms commonly offer adaptive quizzes and individualized learning routes based on learners' performance [5]. The right content challenges and scaffolds learners [4]. The adaptive platforms provide focused language practice and skill development [9].

5. **Conclusion.** In conclusion, the application of cloud-based platforms in EFL education offers significant opportunities to enhance language learning experiences. The platforms provide a range of features and functionalities that promote student engagement, collaboration, personalized learning, and access to authentic language resources. The case studies and research findings demonstrate the positive impact of cloud-based platforms on language acquisition, student engagement, and collaboration.

However, successful implementation requires careful consideration of pedagogical alignment, teacher training, learner support, and assessment strategies. By leveraging the potential of cloud-based platforms and implementing best practices, educators can create dynamic and interactive learning environments that foster language acquisition, communication skills, and cultural competence.

It is recommended that future research continues to explore the effectiveness of different cloud-based platforms, investigate the optimal integration of these platforms with classroom instruction, and examine their long-term impact on language learning outcomes.

The following recommendations are made for the effective implementation of cloud-based platforms in EFL education, based on the findings of the study.

- 1) Professional development: EFL teachers should be trained to use cloud-based technologies. Training should emphasize platform navigation, activity design, personalized learning, and classroom integration.
- 2) Learner help: Learners need continual technical help and advice to succeed. Learners should have easy access to platform access, troubleshooting, and online help.
- 3) Pedagogical alignment: Cloud-based solutions ought to provide support for educational objectives. Educators should do a critical analysis of platforms that facilitate communicative language instruction and foster dynamic, engaging, and meaningful language learning.
- 4) Assessment tools: Teachers should use cloud-based formative and summative assessment tools to track students' progress, give feedback, and assess language competency. Self-, peer-, and teacher-assessment platforms promote a thorough and continuous assessment process.

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