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Language Instruction in Indonesian Elementary Schools Through Computer Assisted Language Learning: A Library Research Review

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ABSTRACT

In elementary institutions around the globe, including in Indonesia, computer-assisted language learning (CALL) has gained popularity. Typically, the CALL procedure consists of four stages: preparation, instruction, practice, and evaluation. Preparation includes setting learning goals and choosing software and multimedia. During teaching, teachers present software and multimedia tools and lead pupils. Students improve their language skills individually using software and multimedia materials. Assessing pupils' language skills is the last step. However, successful implementation of CALL in Indonesian elementary schools requires resolving several obstacles, such as the scarcity of trained instructors and the need to adapt CALL to the context of Indonesia. In addition, it is crucial to balance the use of technology with traditional teaching techniques, such as group activities and face-to-face interactions. The results show that (1) language learning results based on AI relates on computer science mastery level, (2) ICT literacy relates on capabilities in operating CALL (3) Artificial Intelligence viewed a tool to teach language learning, and (4) language learning should create learning environment based on community. CALL could be a potent instrument for enhancing language proficiency and preparing Indonesian students for the challenges of the digital era if it receives adequate funding and support.

Keywords: CALL, elementary schools, language instruction, multimedia resources, technology integration

INTRODUCTION

In many countries, including Indonesia, the use of computer-assisted language learning (CALL) in elementary institutions is growing in popularity. CALL is the use of computer technology to facilitate language learning, and it offers a variety of benefits, including increased engagement, interactivity, and individualization of instruction (Lan & Yu, 2022; Liu et al., 2020; Park et al., 2019). In this paper will examine the potential of CALL in Indonesian elementary schools as well as the obstacles that should be surmounted for its successful implementation. CALL's capacity to facilitate interactive and compelling learning experiences is one of its most significant advantages (Liu et al., 2020). With the aid of CALL, students have access to a variety of multimedia resources, including videos, audio recordings, and interactive assessments, which could improve their learning and retention of information. CALL could also provide a personalized learning environment in which students could work at their own tempo, receive immediate feedback, and monitor their progress (Cope et al., 2021; Knox, 2020; Rashidi et al., 2019). This could result in increased motivation and engagement with the learning process.

The potential to enhance language proficiency through authentic and immersive experiences is another advantage of CALL. Students are able to access authentic language materials such as news articles, audio, and online videos with the aid of CALL. This could help students develop their listening, reading, grammar, vocabulary, and pronunciation abilities. In addition, CALL are able to provide students with opportunities to exercise their speaking and writing abilities through interactive activities such as online conversations, forums, and collaborative writing assignments (Cope et al., 2021; Knox, 2020; Rashidi et al., 2019; Schwendicke et al., 2020). Nonetheless, the implementation of CALL in Indonesian elementary institutions presents several obstacles. In remote regions of the country, the dearth of infrastructure and resources is one of the greatest obstacles. Many schools lack access to dependable internet connections, computer laboratories, and instructors who are trained to use CALL effectively in the classroom (Cope et al., 2021; Holmes et al., 2019; Schwendicke et al., 2020; Sugawara et al., 2020). Another obstacle is the need to adapt CALL to the context of second-language English instruction in Indonesia. The curriculum and materials should be designed with the context, culture, and language of Indonesia in mind. In addition, CALL should be incorporated into the existing curriculum, and instructors should be trained on how to use CALL to facilitate language acquisition (Holmes et al., 2019; Illøkken et al., 2022; Sugawara et al., 2020). Therefore, it is essential to create a balance between the use of technology and conventional teaching strategies, such as classroom discussions and group activities (Fraseda et al., 2022; Illøkken et al., 2022; Shara et al., 2020;).

Computers provide access to an enormous quantity of language-learning resources as their primary function. With computers and an internet connection, students could access language-learning materials such as videos, audio recordings, and podcasts from any location (Martins & Gresse Von Wangenheim, 2022; Pitri & Sofia, 2022; Shukla & Verma, 2019). This access to a vast quantity of language learning materials is essential for language instruction because it exposes students to situations in which the language is used in real life. Moreover, computers offer students an enjoyable and interactive method for learning a foreign language. Lessons that are interactive and entertaining are more likely to keep students engaged and motivated to learn a language (Drukker et al., 2020; Kim, 2020; Martins & Gresse Von Wangenheim, 2022; Pitri & Sofia, 2022). Computers enable students to play games, view videos, and engage in interactive language exercises, which makes learning a foreign language more entertaining. In addition, computers provide pupils with real-time feedback, allowing them to instantaneously remedy their errors (Drukker et al., 2020; Fırat & Koyuncu, 2021; Huettig & Pickering, 2019; Kim, 2020). Traditional methods of language instruction rely on instructors to remedy students' errors, which could take time. With computers, students receive instantaneous feedback, which enables them to quickly remedy their errors and enhance their language abilities.

LANGUAGE LEARNING MATERIALS WITHIN COMPUTER SCIENCE

Computers offer students access to authentic language materials, which is crucial for language acquisition. Students have access to authentic language materials, such as videos, audio recordings, and transcripts, which expose them to situations in which the target language is used. Computers are an effective instrument for foreign language instruction. They offer numerous advantages to both students and instructors, including the enhancement of language skills, the provision of interactive and engaging lessons, the provision of real-time feedback, and the ability to practice outside of the classroom. Students are able to access a vast quantity of language learning materials, receive immediate feedback, collaborate with their classmates,

and exercise their language skills at their own tempo when using computers to learn a foreign language (Cox et al., 2019; Prabowo et al., 2023). Therefore, it is essential for schools to incorporate technology into their language education programs in order to enhance the language learning experience of their students.

An innovative and effective method for teaching foreign languages is computer-assisted language learning (CALL). With the development of technology, CALL has evolved into a significant language instruction instrument. It offers numerous advantages to both pupils and instructors, including the enhancement of language skills, the provision of interactive and engaging courses, and the provision of real-time feedback. CALL provides elementary school pupils with an enjoyable and interactive method of learning a foreign language. Children are inherently inquisitive and enjoy discovering new things; with CALL, they able to engage with the language in a more engaging manner. This increases their likelihood of remaining engrossed and motivated to acquire the language (Novela et al., 2022; Xu et al., 2021; Zhang, Wu, Zhao, et al., 2020; Zhang, Wu, Zhou, et al., 2020). Additionally, CALL allows students to exercise their language skills outside of the classroom.

For language learning, computers provide realistic language resources. When utilizing computers to study a foreign language, students may access a wide amount of language learning resources, get instant feedback, engage with peers, and practice their language abilities at their own pace (Cox et al., 2019; Prabowo, 2023). Computer-assisted language learning (CALL) is a cutting-edge approach for teaching foreign languages. Technology has made CALL an important language education tool. It improves language abilities, provides dynamic and entertaining training, and gives educators real-time feedback. CALL may improve language acquisition in secondary schools (Novela et al., 2022; Prabowo et al., 2023; Zhang et al., 2020). CALL makes language learning fun and engaging for primary school students. CALL makes language learning more fun for curious kids. Interactive language exercises, games, and movies may replace textbook reading. This keeps them engaged and motivated to learn the language (Novela et al., 2022; Xu, 2021; Zhang, Wu, Zhao, et al., 2020; Zhang, Wu, Zhou, 2020). This flexibility lets students practice and improve their language skills at their own speed (Xu et al., 2021; Zhang, 2020).

CALL also gives pupils real-time feedback to fix their mistakesCALL provides prompt feedback, enabling students to correct their mistakes and improve their language abilities faster (Ribeiro et al., 2021; Xu et al., 2021; Zhang et al., 2020). CALL also helps educators monitor student development. This feedback helps students recognize and improve their language abilities (Ribeiro et al., 2021; Zhang, 2021). CALL also lets students work together in the target language. CALL lets students join online debates, group projects, and discussions. In a collaborative context, students may practice their language skills and learn from one other (Ribeiro et al., 2021; Zhang, 2021). CALL helps secondary school students learn languages. CALL allows students to learn a foreign language in a fun and interactive way, practice outside of class, receive immediate feedback, and collaborate with classmates (Hassanzadeh & Nikkhoo, 2019; Magnusson, 2022; Zhang et al., 2021). To improve students' language learning, secondary schools should use CALL.

INFORMATION AND TECHNOLOGY LITERACY IN DEVELOPMENT OF LANGUAGE LEARNING MATERIALS

AI has transformed many sectors, including education. AI-based language training is widely used in primary schools. AI-based teaching uses computer programs, algorithms, and other AI-based tools to teach a new language (Hassanzadeh & Nikkhoo, 2019; Magnusson,

2022; Nurkaeti et al., 2019;). AI-based training has many benefits, but basic language learners should satisfy specific standards. This article discusses elementary school AI-based language teaching standards. Tech-savvy language learners are needed for AI-based language training (Hassanzadeh & Nikkhoo, 2019; Kruchinin & Bagrova, 2021; Magnusson, 2022; Nurkaeti et al., 2019). Students should be tech-savvy to use language-learning tools. Students without computers or computing experience may struggle with this prerequisite. The school should give kids with technology and training to utilize it.

AI-based language training also requires self-directed learning. Students should take responsibility for their learning and growth (Bowker, 2021; Hassanzadeh & Nikkhoo, 2019; Kruchinin & Bagrova, 2021; Nurkaeti et al., 2019). Some students, particularly those used to regular classrooms, may find this challenging. AI-based teaching needs students to be active learners, which might be difficult for some. AI-taught students should be self-directed. They should be self-directed. This requirement may challenge students used to more regimented classrooms. However, working independently could empower students and foster a sense of ownership in their learning process (Bowker, 2021; Kruchinin & Bagrova, 2021). AI-based language instruction should also take into account the importance of time management. Time-management-challenged students may struggle with this prerequisite. Students should acquire time management to succeed in AI-based language learning (Bowker, 2021; Fırat & Koyuncu, 2021; Huettig & Pickering, 2019; Kruchinin & Bagrova, 2021; Valtonen et al., 2019). This requirement might be tough for students used to a more rigorous learning method, but it could empower students who are customizing their learning experience.

CALL is popular in primary schools. Computers aid language learning in CALL. CALL has many benefits, but primary school language learners should satisfy specific prerequisites. In this article, we will address CALL needs in primary schools for language learners (Fraseda et al., 2022; Minervini, 2020; Pitri & Sofia, 2022; Shara, 2020; Shukla & Verma, 2019). Language learners need tech skills for CALL. Students should be tech-savvy to use language-learning tools. Students without computers may struggle with this requirement. The school should give kids with technology and training to utilize it. Language learners should self-study in CALL. Students should take responsibility for their learning. Some students, particularly those used to a conventional classroom, may find this problematic (Fraseda et al., 2022; Illøkken et al., 2022; Minervini et al., 2020; Shara et al., 2020; Shukla & Verma, 2019). Some students find CALL difficult because it involves active learning. CALL users should be self-sufficient. They should be self-directed. This requirement may challenge students used to more regimented classrooms. Working independently empowers pupils and gives them responsibility over their learning. Language students need time management skills for CALL. Language study should be balanced with homework, extracurriculars, and family. Time-management-challenged students may struggle with this prerequisite. Students should learn time management to use CALL for language training (Holmes et al., 2019; Illøkken et al., 2022; Shara and Sugawara, 2020). CALL learners should also be flexible. CALL tools and resources allow varied learning styles. Students should determine their learning style and tailor tools and resources to their needs. This requirement might be tough for students used to a more rigorous learning method, but it could empower students who customized their learning experience.

CALL may help primary school language learners, but it also requires work (Cope et al., 2021; Knox, 2020; Rashidi et al., 2019; Schwendicke, 2020). Technology-savvy, self-directed, autonomous, time-management-savvy, and adaptable students are needed. These requirements might be challenging, but they provide students the chance to study and take charge of their education. Schools should give CALL resources and assistance to improve

language learning. In addition, CALL provides real-time feedback to students, allowing them to promptly remedy their errors. Traditional methods of language instruction rely on instructors to remedy students' errors, which could take time. With CALL, students receive instantaneous feedback, allowing them to remedy their errors and develop their language skills more quickly (Ribeiro et al., 2021; Xu et al., 2021; Zhang et al., 2020). Moreover, CALL enables instructors to track student progress more effectively. Traditional teaching methods make it difficult for instructors to track the progress of each student.

However, with CALL, instructors readily monitor the progress of their students and provide them with performance feedback. This feedback assists students in identifying their language skills' shortcomings and working to improve them (Ribeiro et al., 2021; Zhang et al., 2021). CALL also gives students access to authentic language materials, which is essential for language acquisition. With CALL, students have access to authentic language materials, such as videos, audio recordings, and transcripts, which expose them to situations in which the language is used in the real world. This exposure enhances students' comprehension and proficiency in the target language. Moreover, CALL enables students to collaborate and communicate in the target language with their peers. Students participate in online discussions, group activities, and project collaborations using CALL. Students exercise their language skills in a collaborative setting and gain knowledge from their peers (Ribeiro et al., 2021; Zhang et al., 2021). CALL is a valuable instrument for teaching secondary school students foreign languages. It offers numerous advantages to both pupils and instructors, including the enhancement of language skills, the provision of interactive and engaging courses, and the provision of real-time feedback. CALL enables students to learn a foreign language in an entertaining and interactive manner, to exercise their language skills outside of the classroom, to receive immediate feedback, and to collaborate with their classmates (Hassanzadeh & Nikkhoo, 2019; Magnusson, 2022; Zhang et al., 2021). Therefore, secondary schools should integrate CALL into their language education programs to enhance the language learning experience of their students.

REQUESTS ON THE DEMAND OF ARTIFICIAL INTELLIGENCE-BASED COMPUTER-ASSISTED LANGUAGE LEARNING

AI is an innovative technology that has revolutionized numerous industries, including education. In elementary institutions, AI-based instruction has been extensively implemented to improve students' language-learning experiences. AI-based teaching is a form of technology-assisted language learning that employs computer programs, algorithms, and other AI-based instruments to facilitate the acquisition of a new language (Hassanzadeh & Nikkhoo, 2019; Magnusson, 2022; Nurkaeti et al., 2019). Despite the numerous advantages of AI-based instruction, language learners in elementary institutions who use this technology should also meet certain requirements. One of the primary requirements of AI-based language instruction for language learners is technological proficiency (Hassanzadeh & Nikkhoo, 2019; Kruchinin & Bagrova, 2021; Magnusson, 2022; Nurkaeti et al., 2019). To access language-learning resources, students should be proficient with computers and other forms of technology. It is the school's responsibility to provide students with access to the necessary technology and training to become proficient users.

Self-directed learning is another demand placed on AI-based language instruction for students. Students should be able to manage their own learning and be accountable for their development (Bowker, 2021; Hassanzadeh & Nikkhoo, 2019; Kruchinin & Bagrova, 2021; Nurkaeti et al., 2019). This could be difficult for some pupils, especially those who are

accustomed to a more traditional classroom setting. AI-based instruction requires students to take an active role in their education, which could be challenging for some students accustomed to a more passive learning approach. In addition, pupils utilizing AI-based instruction should be capable of working independently. They should be able to independently follow instructions and complete assignments. Students accustomed to more structured classroom environments may find this requirement challenging. However, working independently also empower students and cultivate a sense of ownership in their learning process (Bowker, 2021; Kruchinin & Bagrova, 2021) In addition to the need for effective time management skills, AI-based instruction for language learners should also take into account the importance of time management. Students should be able to reconcile language learning with other responsibilities, such as assignments, extracurricular activities, and family obligations.

These requirements are difficult for some students, particularly those who have difficulty managing their time. To be successful with AI-based language learning, it is essential for students to develop effective time management skills (Bowker, 2021; Fırat & Koyuncu, 2021; Huettig & Pickering, 2019; Kruchinin & Bagrova, 2021; Valtonen et al., 2019). Moreover, pupils utilizing AI-based instruction should be able to adapt to various learning approaches. Students should be able to identify their learning style and adapt various tools and resources to satisfy their individual requirements (Drukker et al., 2020; Fırat & Koyuncu, 2021; Huettig & Pickering, 2019; Kim, 2020). This requirement difficult for some students who are accustomed to a more rigid learning style, but it could be empowering for students who have the option to personalize their learning experience.

AI-based instruction is a valuable instrument for elementary school language students, but it also places demands on students. Students should be technologically proficient, self-directed, capable of working independently, proficient with time management, and able to acclimate to various learning styles. These requirements could be difficult for some students, but they also provide an opportunity for students to acquire valuable skills and assume responsibility for their own learning (Drukker et al., 2020; Kim, 2020; lan & Gresse Von Wangenheim, 2022; Pitri & Sofia, 2022). It is imperative that schools provide the necessary resources and support so that students could utilize AI-based instruction to enhance their language learning experience.

The use of Computer-Assisted Language Learning (CALL) has grown in popularity, particularly in elementary institutions. CALL is a form of technology-assisted language learning in which computers are used to facilitate the acquisition of a new language. Despite the numerous advantages of CALL, elementary school language learners who use this technology should also meet certain requirements (Fraseda et al., 2022; Minervini et al., 2020; Pitri & Sofia, 2022; Shara et al., 2020; Shukla & Verma, 2019). One of the primary requirements of CALL for language learners is technological expertise. To access language-learning resources, students should be proficient with computers and other forms of technology. This requirement is difficult for some students, particularly those without personal computer access; thus school is responsible for the provision of the devices.

Another requirement of CALL for language learners is self-directed study. Students should be able to manage their own learning and be accountable for their development. This could be difficult for some pupils, especially those who are accustomed to a more traditional classroom setting (Fraseda et al., 2022; Illøkken et al., 2022; Minervini et al., 2020; Shara et al., 2020; Shukla & Verma, 2019). CALL requires students to actively participate in their learning, which could be challenging for some students accustomed to a more passive learning approach. In addition, CALL users should be able to operate independently. They should be

able to independently follow instructions and complete assignments. However, working independently also empower students and cultivate a sense of ownership in learning process.

A further requirement of CALL for language students is effective time management skills. Students should be able to reconcile language learning with other responsibilities, such as assignments, extracurricular activities, and family obligations. To be successful when utilizing CALL for language instruction, students should develop effective time management abilities (Holmes et al., 2019; Illøkken et al., 2022; Shara et al., 2020; Sugawara et al., 2020;). Additionally, CALL users should be able to adapt to various learning techniques. Different students have different learning methods, and CALL provides a variety of tools and resources to accommodate these differences. This requirement could be difficult for some students who are accustomed to a more rigid learning style, but it could be empowering for students who have the option to personalize their learning experience.

CALL is a valuable instrument for elementary school language learners, but it also imposes demands on students (Cope et al., 2021; Knox, 2020; Rashidi et al., 2019; Schwendicke et al., 2020). Students should be technologically proficient, self-directed, capable of working independently, proficient with time management, and able to acclimate to various learning styles. These requirements could be difficult for some students, but they also provide an opportunity for students to acquire valuable skills and be responsible for their own learning.

DIGITAL LANGUAGE TEACHING IN ELEMENTARY SCHOOLS

The digital age has transformed how elementary schools approach education and instruction. The elementary school curriculum now incorporates a variety of digital tools and technologies to enhance students' learning experiences. In this essay, we will examine how the digital age has affected elementary school curriculums. The incorporation of digital tools and technologies into the curriculum of elementary schools has produced a more engaging and interactive learning environment for students. Tablets, laptops, and interactive whiteboards are now commonplace in elementary school classrooms, allowing instructors to create more dynamic and engaging classes that integrate multimedia content such as videos, animations, and interactive assessments (Illøkken et al., 2022; Shara et al., 2020; Sugawara et al., 2020;).

Moreover, the digital age has made it possible for elementary school pupils to have more personalized learning experiences. The digital age has also led to a greater emphasis on digital literacy and computer science education in elementary school curricula. Coding, programming, and digital design are now taught to students as early as elementary school (Fraseda et al., 2022; Minervini et al., 2020; Shara et al., 2020). However, the incorporation of digital tools and technologies into the curriculum of elementary schools also presents obstacles. The digital divide, in which pupils from low-income households may not have access to the same digital tools and technologies as their peers, is one of the greatest obstacles. To prevent the educational divide, schools should guarantee that all pupils have equal access to digital resources (Fraseda et al., 2022; Minervini et al., 2020; Shara et al., 2020). Teachers should ensure that digital tools are used responsibly and for their intended purposes, and instruct students on how to use them effectively and efficiently. Students have been prepared for a digital future thanks to the increased collaboration and communication made possible by digital tools and technologies. However, the integration of digital tools and technologies presents obstacles, such as the digital divide and the possibility of distraction (Fraseda et al., 2022; Minervini et al., 2020; Shara et al., 2020; Shukla & Verma, 2019).

It is crucial for schools to ensure that digital resources are utilized responsibly and for educational purposes, and that all students have equal access to these resources. The use of

digital tools and technologies in language instruction provide elementary school students with a more engaging and interactive learning environment and help them develop their language skills in novel and inventive ways. The use of language-learning applications and online resources is one of the most significant effects of the digital era on elementary school language education (Fraseda et al., 2022; Minervini et al., 2020; Pitri & Sofia, 2022; Shukla & Verma, 2019). Fun and interactive apps such as Duolingo, Rosetta Stone, and Babbel enable students to acquire a new language at their own tempo. These applications use gamification and adaptive learning technologies to provide individualized feedback and suggestions based on the student's progress.

Additionally, digital tools and technologies improve classroom-based language instruction. The use of interactive whiteboards, tablets, and laptops enables instructors to design dynamic and engaging lessons that integrate multimedia content such as videos, animations, and interactive assessments (Martins & Gresse Von Wangenheim, 2022; Minervini et al., 2020; Pitri & Sofia, 2022; Shukla & Verma, 2019). This provide students with a more immersive and engaging learning environment, allowing them to acquire language skills in a more natural and intuitive manner. Utilizing online communication tools and virtual classrooms is another effect of the digital age on elementary school language education. Using platforms such as Skype and Zoom, instructors connect with language experts and native speakers from around the globe, providing students with opportunities to exercise their language abilities in a natural setting. Virtual classrooms such as Edmodo, Google Classroom, and Canvas enable instructors to create a collaborative and interactive learning environment in which students could share resources, collaborate on projects, and receive feedback from teachers and peers (Kim, 2020; Martins & Gresse Von Wangenheim, 2022; Pitri & Sofia, 2022; Shukla & Verma, 2019).

TRANSFORMATION ON DIGITAL AGE COMMUNITIES FOR LANGUAGE TEACHING AND LEARNING

The digital age has transformed how we work, live, and learn. With the accelerated advancement of digital technologies, elementary school language education has been challenged to develop a curriculum suitable for the digital generation. The curriculum should integrate digital tools and technologies that could enhance language learning, while also preparing students to flourish in a digital world. Creating a language curriculum for the digital generation that suits the requirements of students with diverse levels of digital literacy is one of the greatest obstacles (Drukker et al., 2020; Fırat & Koyuncu, 2021; Huettig & Pickering, 2019; Kim, 2020). Some students may be adept at using digital tools and technologies, whereas others may lack the fundamental skills required to navigate digital platforms. To address this challenge, language curricula should include training in digital literacy skills that assists students in acquiring the competencies required to use digital tools effectively.

A further difficulty is ensuring that digital tools and technologies are incorporated into the curriculum in a manner that enhances language learning rather than becoming a distraction. Teachers should use digital tools in a way that complements the curriculum and does not supplant conventional teaching techniques. Using interactive whiteboards or tablets to provide additional practice activities, for instance, it could enhance learning, whereas using these tools excessively could hinder the learning process. In addition, digital tools and technologies should present assessment challenges (Drukker et al., 2020; Kim, 2020; Martins & Gresse Von Wangenheim, 2022; Pitri & Sofia, 2022). Traditional methods of evaluation may not be appropriate for evaluating digital literacy skills or students' proficiency with digital tools.

Therefore, language curricula should incorporate alternative forms of assessment, such as digital portfolios, multimedia projects, and online exams, that should measure these skills. Furthermore, language curricula should address online safety and digital citizenship.

Students should be instructed on how to use digital tools safely and ethically, as well as how to safeguard their personal information online. In addition, they should learn how to recognize and avoid online hazards such as cyberbullying and frauds. Creating a language curriculum for the digital generation that is pertinent to real-world situations is another challenge (Kim, 2020; Martins & Gresse Von Wangenheim, 2022; Pitri & Sofia, 2022). Language instruction should prepare students for effective communication in a digital world where communication is becoming increasingly global and multicultural. Therefore, language curricula should provide students with opportunities to exercise their language abilities in authentic situations, such as through online communication with native speakers or virtual exchange programs.

For the development of a language curriculum for the digital generation, the digital age presents both obstacles and opportunities. The curriculum should integrate digital tools and technologies that are enhanced learning, while also ensuring that students have the digital literacy skills necessary to flourish in a digital world. In addition, it should address the issues of assessment, online safety, and practical application. By addressing these challenges, language curricula prepare students for success in an increasingly interconnected and global digital world (Martins & Gresse Von Wangenheim, 2022; Minervini et al., 2020; Pitri & Sofia, 2022; Shukla & Verma, 2019). The proliferation of digital technologies has had a profound effect on how we live, communicate, and learn. This effect is amplified for elementary school pupils who were born into the digital age. The challenge of developing a language education curriculum for digital natives in elementary schools is to create a learning environment that is not only engaging and effective, but also aligned with these students' needs and interests.

Developing a language instruction curriculum for digital natives is complicated by the need to utilize digital tools and platforms effectively. Technology has created opportunities for interactive, personalized, and engaging language learning. The challenge, however, is to ensure that the use of digital tools does not overshadow the primary objective of language instruction, which is to improve students' language proficiency. Consequently, it is crucial to integrate digital tools in a way that enhances the learning experience and supports the curriculum's learning objectives (Drukker et al., 2020; Fırat & Koyuncu, 2021; Kim, 2020; Martins & Gresse Von Wangenheim, 2022). Therefore, language instruction should integrate elements that correspond with these interests, such as social media platforms, online activities, and videos, in order to make the learning experience more engaging and individualized. In addition, it is difficult to create a curriculum that meets the requirements of students with varying levels of digital literacy (Drukker et al., 2020; Fırat & Koyuncu, 2021; Huettig & Pickering, 2019; Valtonen et al., 2019).

Teachers should also be endowed with the skills and knowledge necessary to effectively integrate digital tools and platforms into their lessons. Teachers should receive training that empowers them with the skills and strategies necessary to use digital tools and platforms to support the curriculum's learning objectives. It is crucial to address the issue of online safety and ethical behavior when utilizing digital tools and platforms. Students should be instructed in the safe, responsible, and moral use of digital tools and platforms. They should also be taught how to safeguard their personal information online and avoid cyberbullying and other online hazards (Bowker, 2021; Huettig & Pickering, 2019; Kruchinin & Bagrova, 2021; Valtonen et al., 2019). Developing a language education curriculum for digital natives in elementary

schools is, in conclusion, a formidable challenge. The curriculum should incorporate digital tools and platforms in a manner that supports the curriculum's learning objectives and enhances the students' learning experience (Bowker, 2021; Hassanzadeh & Nikkhoo, 2019; Kruchinin & Bagrova, 2021; Nurkaeti et al., 2019). In addition, it should be pertinent to the interests and experiences of students, address varying levels of digital literacy, provide appropriate teacher training, and promote online safety and ethical practices. By addressing these challenges, the curriculum could create an engaging, effective, and well-aligned learning environment for digital native elementary school students.

CLOSING AND SUGGESTION

The need to adapt CALL to the Indonesian language, culture, and curriculum is an additional difficulty. The software and multimedia resources should be designed with the Indonesian context in mind, and instructors should effectively integrate CALL into the existing curriculum. In addition, it is necessary to ensure that the necessary technological infrastructure is in place, including dependable internet access and adequate computer resources. Lastly, it is crucial to consider the potential hazards associated with CALL, such as an overreliance on technology and the possibility of students becoming socially isolated. Consequently, it is essential to strike a balance between the use of technology and traditional teaching techniques, such as group activities and face-to-face interactions.

CALL offers numerous advantages for language learning in Indonesian elementary institutions, including increased interactivity, personalization of instruction, and access to multimedia resources. However, successful implementation requires confronting several obstacles, including the dearth of trained instructors, adapting CALL to the Indonesian context, and striking a balance between the use of technology and traditional teaching methods. CALL be able to potent instrument for enhancing language proficiency and preparing Indonesian students for the challenges of the digital era if it receives adequate funding and support.

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