

# AN INVESTIGATION INTO THE USING OF COMPUTER ASSISTED LANGUAGE LEARNING IN ENGLISH LANGUAGE TEACHING

Miyarti<sup>1</sup>, Iin Inawati<sup>2</sup>, Bambang Widi Pratolo<sup>3</sup>

Universitas Ahmad Dahlan, Indonesia

<sup>1</sup> miyartim47@gmail.com, <sup>2</sup> iin.inawati@mpbi.uad.ac.id, <sup>3</sup> bambangpratolo@mpbi.uad.ac.id

## Abstract

In the era of globalization, the use of technology in daily life has increased significantly. Along with the advancement of technology, one of the new learning tools that have been created known as CALL (Computer Assisted Language Learning) which purposed to make English teaching learning activity more effective and efficient. This research is aimed to review the major theme that be focus from the use of Computer Assisted Language Learning (CALL) in English Learning Teaching classroom. This systematic review was conducted in the fourth phase: collecting, identifying, screening, and reviewing. The research articles that were reviewed in this study fulfilled three criterias: a) research about the use of CALL in ELT, b) peer-reviewed studies, c) taken from reputable journal websites. The search of the journal was conducted using some search engine database such Google Scholar, and reputable journal website finds in Science and Technology Index (Sinta) Website by Kemendikbud. The research's finding shows that the use of various CALLs application in English teaching learning increases pupil's English proficiency and improves the effectiveness of the learning process.

**Keywords:** CALL; ELT; Systematic Review

## INTRODUCTION

Due to the ever-expanding demands of humans, technology and communication have been advancing at a rapid pace. One of the common tools that people utilize to better themselves is technology. Since technology has been raised in every aspect of our daily life, it is also influenced in advancements majority in general education and language education (A, 2019). Technology has been applied to improve the effectiveness of English language teaching. When modern technology is used to teach English, it is generally considered to mean using creatively applied techniques, instruments, materials, tools, and systems that are directly related to teaching the language and help achieve the goals that were set.

Thousands of studies have been conducted to investigate technology on various approaches and methods in ELT. Those studies have revealed that technology contributes a significant effect in second and foreign language teaching as a teacher aid (Warschauer, 1996) and in the development of students' language proficiency, autonomy, and motivation. Along with that, Abunowara (2014) also said that technology is not merely beneficial in teaching and learning classroom, it also gives opportunities for self-learning outside of the classroom for foreign language learners. This is because technologies have evolved into powerful tools for communicating with people all over the world. Compared to conventional media, they are easier, quicker, and more practical to use. Technology also influence the learning preferences for the learners. Today's learners are raised in a technologically enabled environment, where they prefer instantaneous feedback, engaging activities, and simpler, more accessible informations (Alwahoub et al., 2022).

According to Warschauer (1996) computers' roles in language education, in particular, are expanding globally. This is due to the fact that language learners can utilize the internet to communicate with other language learners or speakers all around the world. Many resources for learning foreign languages can be found anywhere, including dictionaries, training courses, and publications. They are all equipped and reinforced by other media like disks and video files which require a computer and other technologies.

Along with the advancement of technology and the improvement of the use of computer in education, a new learning tools are being created. Computer Assisted Language Learning (CALL) is one of them. The main goal of CALL is to improve language learning by using technology in the class. Levy (1997) mentioned that CALL is described simply as "the search for and study of computer applications in language teaching and learning" (Chernova et al., 2022). It incorporates a variety of Information and Communication Technologies (ICTs), apps, and methods for teaching and learning foreign languages. According to Warschauer (1996) in theory on the evolution of CALL there are three main teaching methodologies in ELT which are behavioristic CALL, communicative CALL, and integrative CALL as they provide a general summary of CALL. Whereas kinds of Computer Assisted Language Learning can be divided into four; traditional CALL, communicative CALL, multimedia CALL, and web-based CALL.

As a result of the improvement, there has been a rise in research on the relationship between technology and language acquisition, particularly in context with the implementation of new technologies that enable and assist computer-based language learning and teaching. Previous CALL reviews often fall into two categories. Several studies (Bax, 2003; Chapelle, 2001; Delcloque, 2000; Jung, 2005; Warschauer, 1996) have established historical periods in CALL education. Some scholars argue that CALL has prioritized technology over educational needs (Delcloque, 2000). Meanwhile, a study by MacAro et al. (2012) conducted a systematic review of research trends in Computer Assisted Language Learning (CALL) around 2000.

As seen in the reviewed literature, CALL has been investigated from various viewpoints by the researchers. Besides, historical periods in CALL and the educational needs have been the main focus of several studies conducted before. However, obviously, the literature on CALL is growing over time. Furthermore, there is scarcely studies investigated about the new trends and topic in research in CALL. To fill this gap, the researchers are motivated to examine the new trends of CALL research. The researcher is conducting this study to understand about current trends in CALL research over the last ten years. According to the findings of this study, there are four major themes in CALL research. This result can be advantageous for educators in developing educational policies in which CALL can be used in the learning process because it is an effective way to learn English. Furthermore, the developer in education may apply the disadvantages of CALL in this study to improve the application's quality.

## **METHOD**

This research conducts a systematic review of over twenty-five CALL-related journals to gain a better understanding of its utilization in English learning and teaching. The investigation's goal is to synthesize a few issues that have been discussed in academic journals. The journals came from reputable journal resources all throughout the world. This review provides a thorough analysis of the research that has been done so far and makes research recommendations. A discussion about literature by Creswell & Creswell (2018) stated that literature "is a written summary of journal articles, books and other documents that describes the past and current state of information, organizes the literature into topics and documents a need for a proposed study." (pp. 79).

The steps of conducting this systematic search are divided into four steps. When the researcher gathers journals from many reputable journal sources, it is the first step. In the searching process, a keyword is needed to improve the accuracy of the articles. Some main keywords were chosen for this study: CALL, English Learning Teaching, computer assisted, ICT, e-learning, computer program, google classroom, google doc, writing skill. Whereas the journals were taken from reputable journals like: IJOLE, SIELE, IOSR Journal of Humanities and Social Science, IJAL, PREMISE, IJELTAL, ELT, IJEE, IJERE, Edulingua, JSMULA, Visualita and Mediterranean Journal of Social Sciences.

The second step is identifying. It is the process of identifying the journals that are relevant to the research. In this step, the journals also diversify into some categories to make the researcher easy do the next step.

The third step is screening. Screening is the process of establishing inclusion or exclusion criteria for selecting appropriate articles for systematic literature review (Mohammed Shaffril et al., 2021). Researchers looked through the references of Computer Assisted Language Learning research studies to find related works. The purpose of this study was to find patterns and themes in the using of CALL in ELT. The journals are grouping and naming by its categories. The final step is to analyze and review the journals. The researcher carefully read all journals to understand the main discussion and findings and group them into themes. Following that, the researcher employs coding to generate and classify data based on the theme.

## RESULTS AND DISCUSSION

### Results

In the beginning of 1970, people start to apply technology in the language teaching and learning classroom (Karakash & Ersoy, 2011). Since then, almost all the journals discussed the use of CALL in the classroom's everyday teaching and learning process. Here, we will discuss the emerging themes of Research on CALL. The investigation has done twenty-five journal articles from many reputable journals' sites.

#### 1) The Characteristic of Research on CALL

The researcher will outline the characteristics of the journals under review before presenting the research findings. The characteristic that founded in this research may be shown in the table below:

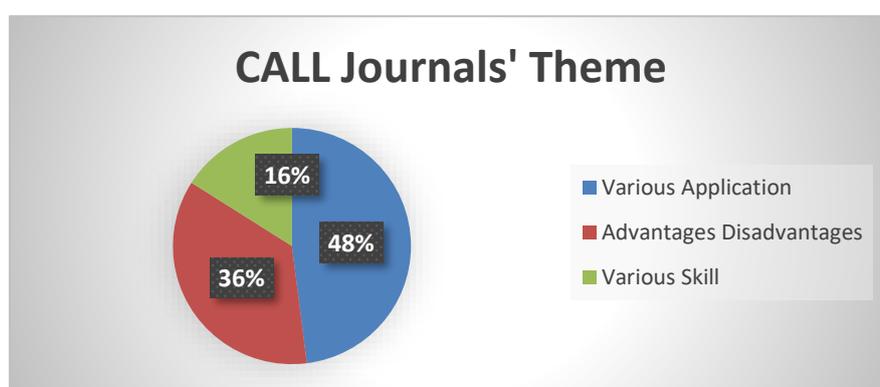
**Table 1. Characteristics of Research on CALL**

Characteristics	Amount	Presentage
<b>Publication Year</b>		
2003 – 2013	8	32%
2014 – 2022	17	68%
<b>Place of Publication</b>		
Indonesian Journal	8	32%
Abroad Journal	17	68%
<b>Research Design</b>		
Qualitative	15	60%
Quantitative	9	36%
Mix Method	1	4%

Based on the preceding table, we may infer that research on CALL is published in 25 publications, with 68% of those journals covering research conducted between 2014 and 2022 and 32% covering research conducted between 2003 and 2013. Only 32% of the article's author are from Indonesia, with 68% of them being foreigners. Sixty percent of the research is qualitative, thirty-six percent is quantitative, and four percent uses a combination of qualitative and quantitative methods. Research is conducted using a mix of methods (both qualitative and quantitative), with 60% being qualitative and 36% being quantitative.

## 2) Main Themes in CALL Research

In this section, themes of twenty-five journals on Computer Assisted Language Teaching were observed and analysed. It was found that there are three main themes in journals about CALL. We can see the percentage of the themes in the diagram below.



## Discussion

After finding the characteristics and the main themes upon twenty-five journals, the researchers divided the main themes into three main themes; The using of CALL application in improving learners' English proficiency, the using of CALL to teach English skills, the advantages and disadvantages of using CALL. Below will be discussed briefly.

### Themes One: Raising Pupil's English Proficiency by Using CALL Application

There are eleven journals that contain about various application used in CALL. Numerous tools have been successfully utilized to raise pupils' English proficiency. Those applications are varied such Google Doc to improve collaborative writing (Alwahoub et al., 2022; Alsubaie & Ashuraidah, 2017; Valizadeh, 2022), Memrise, Quizlet, MCALL, TEM (Tell Me More) application to improve students' vocabulary (Esmaeili & Shahrokhi, 2020; Rizky Setiawan & Wiedarti, 2020; Sabet & Shalmani, 2010) (Enayati & Gilakjani, 2020), 3D Game to maximize the language learning (Rahmadini & Zpalanzani, 2018), various application that used by pre-service English teacher (Syafryadin et al., 2021), electronics portfolio to improve writing ability (Soedjatmiko et al., n.d.) Google classroom to teach English tourism (Suwastini et al., 2021), and Podcast to improve students' listening comprehension (Al Qasim & Al Fadda, 2013). The main purposes of the application are to help pupils with their main skills. Rather of learning without the aid of technology, Google Doc is utilized to help students become better writers and vocabulary masters (Alsubaie & Ashuraidah, 2017). Since today's students are digital natives, it is necessary to integrate online learning resources with their education. Systematic word repetition such in TEM application ensures that newly acquired terms are retained, which is one particular advantage of employing CALL vocabulary instruction (Enayati & Gilakjani,

2020). When using CALL application, most students felt more enthusiastic about learning vocabulary and were less likely to become bored. The application increased the students' motivation, which influenced their grades (Rizky Setiawan & Wiedarti, 2020). The application of CALL in the form of online software with little emphasis on face-to-face teaching to English writing in a university and investigates how CALL benefits English writing teaching and learning. It is durable in all situations, and students can use it at any time and from any location. This effectiveness drives students' English ability to improve (Suwastini et al., 2021).

### **Themes two: Learning Teaching Skill by Using CALL**

CALL has been used to teach various English skills such writing skill (Alwahoub et al., 2022; Alsubaie & Ashuraidah, 2017; Valizadeh, 2022; Nurawalia, 2021), grammar skill (Sadeghi & Dousti, 2012), and listening skill (Al Qasim & Al Fadda, 2013). Some studies (Alsubaie & Ashuraidah, 2017; Alwahoub et al., 2022; Nurawalia, 2021; Valizadeh, 2022) sought to determine how collaborative writing exercises and Google Docs' collaborative features affected students' ability to write independently. The results demonstrated that the three writing tasks in the treatment group's students' pre- and post-tests were significantly different, as revealed by both within-group and between-group comparisons. The journals have demonstrated how writing is used as a collaborative teaching strategy. Using the collaborative technique, one participant can provide feedback and comments to the other participant. It improves the effectiveness of the learning process. Another great things about computers is their ability to offer instructional games and make studying grammar more enjoyable (Sadeghi & Dousti, 2012). Similarly with another previous studies, it shows that the application of technology in teaching and learning grammar is effective.

### **Themes three: Teacher's Challenges in Applying CALL (Advantages and Disadvantages of CALL)**

The potential role that CALLS program can play in language classrooms as an important teaching aid or tool of instruction. Whereas, CALL has some advantages and disadvantages (Khamkhien, 2012). The advantages of using CALL in English Learning Teaching are gives a variety of learning materials and media in accordance with the level of learners, increases student achievement by using CALL to make the learning process more efficient, provides students with authentic language in a real communication, gives up-to-date information, motivates students and relevant to content-based learning, develops students' language skills and saves time and effort in the class (Ahmed et al., 2020; Jiang, 2008; Rachmawati et al., 2020; U. Rachmawati, 2016).

Furthermore, using CALL to aid with language acquisition gives students with authentic input while encouraging foreign language learners to produce understandable output. CALL can provide learners with the information and support they need to complete individual tasks, as well as respond to the diversity of learner needs, even within a single classroom structure (Khamkhien, 2012).

Meanwhile, the disadvantages of applying CALL in classroom are; big files can be slow to load into memory, so much information that it may be too time-consuming to find the good one, some web sites are thin in substance, users can get lost in cyberspace (Jiang, 2008) and some institutions might not be able to afford CALL or have access to it (Khamkhien, 2012).

Besides the positive effects of CALL in language instruction, excessive CALL use is unhealthy (Khamkhien, 2012). Teachers in the classroom should not be eliminated or displaced by CALL. CALL should be used to assist learners rather than to replace teachers.

The use of CALL in classroom also meets some challenges such; a lack of appropriately-educated persons (Khamkhien, 2012; Kiliçkaya & Seferoğlu, 2013); lack of internet connection, computer and ICT tools in the library of English department (Ahmed et al., 2020);

choosing reliable information sources should be done by teachers and students (Islam, 2020; Rachmawati et al., 2020); and lack of monitoring and evaluation processes by teachers (Rachmawati, 2016).

## CONCLUSION

The purpose of this systematic review is to determine how journals are currently discussing CALL. Twelve of the twenty-five publications that were studied explore various CALL classroom applications, nine discuss the benefits and drawbacks of CALL in ELT, and four discuss the use of CALL in various teaching techniques. According to the findings, there are three major themes in CALL research. The first emerging theme is the use of CALL applications to help students improve their English proficiency. The second theme demonstrates that CALL can be used to teach a variety of skills. The third theme explains the advantages and disadvantages of using CALL in ELT. Thus, it can be inferred that most CALL-related journals describe the use of various applications in CALL-classrooms. The findings indicate that further research on the use of CALL in various teaching techniques should be done in order to enrich knowledge in that case.

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This research still far from ideal. So the researcher hopes that another researcher will study the impact of Computer Assisted Language Learning in English Learning Teaching. Meanwhile, the researchers want to thank to all the parties who have supported the research and writing process. Furthermore, the researcher hopes that this research will be valuable and serve as a reference for another researcher who is conducting research on a comparable topic.

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