

THE USAGE OF TECHNOLOGY APPLICATIONS FOR BILINGUAL EDUCATION OF CHILDREN

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Abstract: *Technology is now a crucial component of how students learn languages. This article's goal is to review the literature on using technology to enhance bilingual education for kids. Without regard to the percentage of each language, the definition of bilingualism is participation in at least two (or more) languages, at least one of which is English. This study aims to ascertain how multilingual youngsters who speak both Indonesian and English use technology. The majority of studies have revealed that technology aids in children's acquisition of bilingualism. Supporting bilingual youngsters necessitates tailoring abilities to their needs. The development of children's language was strongly correlated with interactions between adults and youngsters. Additionally, in order to develop bilingual education without sacrificing mother tongue, interaction between parents and teachers was necessary.*

Keywords: *Bilingual, Education, Technology, Language acquisition, Artificial intelligence and Cultural identity.*

INTRODUCTION

Due to the prevalence of English as a language of international communication, bilingual schools are increasingly becoming popular in Indonesia. The process of studying at least two or more languages is known as bilingual education. When a speaker of one language was able to communicate effectively in another, this is when bilingualism first emerged (Haugen in Fauziati, 2014).

To raise the status of English as a global language and Indonesian as a national language, we are launching a language education program. Bilingual people are those who are able to speak at least two languages. Another definition of bilingualism is "natural control over two languages" (Bloomfield in Fauziati, 2014). According to Cummins (2003), referenced by Eteke (2017), bilingualism benefits children's linguistic and academic development. Speaking two languages benefits a person's social and cognitive growth. Additionally, it expands prospects for international trade

and interaction as well as mental flexibility and intercultural competence. Furthermore, studies show that lifelong bilinguals outperform monolinguals on a variety of non-linguistic tests of cognitive control, which is another benefit of bilingual education. Some parents want their kids to be multilingual because they have this viewpoint. They received assistance from several schools that provide multilingual education programs during the teaching and learning processes. Because of this, being multilingual is now necessary for success. Additionally, some parents may believe that putting their child in a bilingual school will help them develop their language skills.

Today, a few schools provide multilingual education programs. They impart knowledge to the students in two languages, so they not only learn the language but also the subject matter. There are bilingual schools available for students in kindergarten through senior high school. It was because becoming bilingual was becoming a new requirement for success. Essentially, bilingual schools combine the use of their native tongue with the use of English to facilitate learning.

METHOD

In this study's literature review, the papers pertinent to the research issue were examined and given brief paragraph-length summaries. In this study, technology-related research in bilingual education was explored. A systematic, documented, and conducted literature review can be used as a research approach in a study (George, 2008). The terms "bilingual" and "bilingual education," "helping children become bilingual," "technology and its exposure," and "children's interactions" were used to find articles that were connected.

FINDINGS AND DISCUSSIONS

Bialystok (2004), cited in Mahsain (2014), discovered that bilinguals perform equally well on non-verbal examinations as monolinguals, but perform worse on verbal tests. But according to the Bialystok study, there isn't much solid scientific proof in their favor. Bilingualism in the context of education in Bali can simply be defined as a concept of teaching that uses two languages as the medium of instruction, one of which is an international or prestigious language (i.e. English). However, the phrase tends to be difficult to define in the context of educational research in general because it incorporates many linguistic conditions in various places and nations (Chen, 2017). Literally, "bilingual education" refers to any educational program that incorporates two languages as part of the teaching process. The development of bilingual education, according to Chen, has been ongoing for a while, and many of its definitions have been reached by well-known academics around the world, such as Anderson and Boyer (1970).

Nevertheless, the following definition is more pertinent to primary school instruction and is stated as follows: "Any system of school education in which instruction is planned and provided in at least two languages at any given time and for a varying amount of time, concurrently or consecutively" (Hamer & Blanc cited in Chen, 2017). This definition places more emphasis on using two languages as a teaching tool than on using them to accomplish academic goals.

The phrase "bilingual education" is like "a simple label for a complex phenomenon," according to Baker (2001). Although different theorists have different perspectives on what bilingual education is, most of them agree on the following three points: schools are typically the setting for bilingual education; two languages are used as teaching tools; one of the two languages should be the students' first national language, and the other one is either their second language or can be an international language; and bilingual education involves two languages. According to Baker (2001), bilingual education is not as simple as it may seem.

According to another definition, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) (1990) adopted the term bilingual education to describe a learning environment where local, native, and foreign languages are spoken (Eteke, 2017). According to UNESCO, bilingual education refers to a method of instruction that uses two languages, one of which is not the learner's first language. The traditional language education programs designed for EFL and ESL learners differ from bilingual education. It includes obtaining instruction or education in two languages rather than just studying the languages as separate courses. It also calls for exposure to non-native language in particular contexts, making it a teaching and learning tool. It brings together teachers and students from various linguistic, cultural, and national origins and assures that everyone uses the same lingua franca (Baker, 2001). Bilingual education is currently defined as the use of two or more languages as the medium of instruction for substantive subjects, according to Eteke (2017) and Cambridge Education Brief 3 (2015).

Consequently, bilingual education could be broadly characterized as the use of two languages in the educational system, one of which being the native tongue of the pupils, and the use of the languages without mentioning the relative share of each language. However, Chen (2017) argued that as no single definition can be agreed upon by everybody, each person should maintain their own view of what constitutes an effective bilingual education.

Helping Children become Bilingual

According to Artini and Nitiasih (2017), parents can encourage bilingualism in their kids by doing the following:

a) Speak in two languages from the start. You can start a conversation with the kids. According to study, if your child has already been exposed to many languages, knowing both languages will not have any bad effects.

b) They can try to utilize a different language widely at home if they only speak one language at school. Commentary is spoken in a variety of tongues and remains in a variety of settings.

c) Give your child daily access to opportunity, technology, and learning materials in both languages. Prepare an engaging English storybook, for instance, and speak Uzbek with your parents when you are in Uzbekistan.

Technology, Its Exposure and Children Interaction

Recent technological advancements have given educators more chances to use technology in the classroom. As a result, technology is now almost always used for language learning. New technologies were found and are becoming more widely accessible, such as virtual reality, augmented reality, or wearable technology. In addition, new technologies (such cloud computing, computational thinking, natural language processing, etc.) are developing and show great promise for application in teaching and learning languages. According to Strangelove (2010), Ganapathy & Seetharam (2016), Ferguson et al. (2014), Khan (2017), and other authors, the use of information and communication technology (ICT) in daily life has an impact on how much digital technology is used in educational activities.

Additionally, technology has been employed as a tactic to enhance instruction and instructional approaches, according to Riyadh (2016). Since smartphones and tablets are available the majority of the time, digital technologies are frequently associated with social media or mobile applications like YouTube, Instagram, Facebook, Duolingo, Jolly Phonics, and so forth.

Furthermore, according to Mayer (2001), multi-technology refers to the integration of different digital media, including text, images, audio, and video, into integrated multi-sensory interactive applications or presentations that are intended to communicate ideas and information to the audience. People's ability to process information is described as one of the possible advantages of multi-technology. Students have the chance to express their ideas to others by using a variety of technologies to communicate what they understand about a given subject.

Additionally, it gives students a means of communication as well as fresh perspectives on how to categorize and evaluate material (Ivers and Baron, 2002). Additionally, Roseberry et al. (2009) are cited in AlHarbi (2015), who claims that whereas younger children may only learn vocabulary when supplemented by social interaction, older children can independently learn vocabulary via television.

Additionally, watching television in a foreign language can promote both active and passive vocabulary growth. Additionally, it's not fully accurate to say that mastering a language by listening precedes mastering it speaking. The vocabulary pool of passive verbs can only grow by listening. Although the word is comprehended, Zimmerman et al. (2015) write that it is not yet suitable for active use in conversation. Moreover, this passive vocabulary must be activated through interaction. Children's linguistic abilities can be developed through interactions in children's television shows, according to several researches.

By assessing infants' capacity to learn through technology, Linebarger and Vaala (2010) studied how screen technology affects children's language development. They discovered that technology worked best when it was possible to identify the child from the content. Additionally, technology has been used as a teaching and learning tool to boost students' motivation, interaction, and language proficiency (Listiani et al., 2021; Mahzum et al., 2020; Pujiati et al., 2019; Hoffmann & Ramirez 2018; Chang & Roldan., 2018; Prihastuti et al., 2018; Pratama, 2018; Riyadh, 2016).

The development of children's language has, nevertheless, been linked positively by parent-child interactions. The learning of vocabulary and imitation skills in children have benefited from parental engagement. This experience fits the definition of parental involvement in children's educational experiences. The context in which a kid learns a language is also crucial. Duursma (2007) examined how home literacy activities and the language environment affect the growth of bilingual vocabulary in Brickman (2017). They discovered that one aspect connected with home language use was looking at the environment's support for literacy activities, including counting the quantity of books found at home (Brickman, 2017). The environment has a significant impact on a child's ability to acquire a second language and become bilingual. According to Brickman (2017), experience offers crucial information about the ideal moments for multilingual education.

Regarding the power of technology, they were able to create pedagogical practices where technology not only supported students' academic identities but also helped children develop new roles for themselves as writers and inquirers (while the preservice teachers adopted the roles of teacher and learner). We are reminded of Freire's (1970) vision in which both adults and children are simultaneously instructors and students by the labor distribution in which the children became agents and at times "teachers" for one another and in which the preservice teachers learned from the children. Language input is referred to as a significant language that kids learn via interacting with others. Included in this are gifts from other kids, teachers, families, and parents.

CONCLUSION

Parents with bilingual children understood the value of technology in fostering bilingual development. Technology that has been helpful to multilingual kids needs to be prepared with their needs in mind. According to the study's findings, technology can help kids develop fundamental abilities including listening comprehension, vocabulary growth, successful learning outcomes, and self-improvement, all of which benefit from social contact. Thus, exposure to technology can both encourage the development of passive language and work to transform it into active language. The interaction may be with the nearest relative, professors, or friends. Children would learn technology and computers more easily if they were multilingual because all computer education is offered in English. The future of children will also benefit greatly from getting a better profession, as language is crucial for interpersonal interaction and communication.

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