



## Teacher Educators Perspectives on The Use of Augmented Reality for Foreign Language

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### Abstract

The purpose of this study is to share reflections on Augmented Reality (AR) technology as an upgrade tool for foreign language development. The method in this study is to explore short but extensive literature research. This paper discusses AR technology for the revival of upgrading philosophy, promotion of nursery teachers, teachers, students, customs, infrastructure, and sustainability, using an activity framework outlining the suitability of improved technology in development programs. For analytics, AR technology has essential benefits for language development; however, it is not suitable for all types of languages. Not only that, but it also offers solid recommendations for AR-enhanced activities in 4 skills and language-specific applications. This information has some relevance for instructors, teachers, researchers, and Augmented reality content creators. The result of this study is that augmented reality technology used in prolonged learning conditions contributes to some elasticity. Many augmented reality applications can be used and applied in language lessons.

### Keywords:

Augmented reality, Teacher Educators, Foreign Language, Multimedia

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## INTRODUCTION

Language teachers incorporate various materials into their types, from the latest references to digital technology, such as software packets for vocabulary and e-portfolios. Teachers today must analyse the digital energy base more carefully because there is more digital equipment available. Sourced from learning, they have a unique experience with the material. Next, the conventional upgrade module is "fairly easy to analyse because it has a visual leak that allows teachers to obtain common thoughts from the body and its contents" (Hegarty, 2012). However, with many materials and equipment for upgrading nurseries, the option means to sort out digital equipment for upgrading nurseries and language teaching.

Evaluation of courseware or training features should create a unique atmosphere, considering the teaching situation, the student's personality, and the purpose of upgrading the nursery. It should also note that the research in the literature centre is relevant to experimental research with AR and the posting of connection data for language acquisition by (Karacan & Akoğlu, 2021). However, there is a scarcity of research on the use of instructional augmented reality technology and the idea of applications for use in the environment of foreign language upgrades. In conclusion, this data posting seeks to overcome this void by investigating the consequences of upgrading and efficient AR



technology on learning philosophy, upgrading nursery teachers, teachers, students, customs, infrastructure, sustainability, and four different language skills. In conclusion, the data posting at this time was motivated by research issues:

1. What is the condition of literature regarding the upgrading and teaching of augmented reality language?
2. How is augmented reality technology for language enhancement evaluated as a feature of upgrading technology by considering the suitability of upgrading technology?

In checking the availability of technology for language acquisition, we must classify the literature at this time with its complete meaning, principles of use, application, and intertwined concepts, which are contrary to your religion. Along with the duration and the challenges it brings, the upgrading system after that requires revision. The forces at this time were then flooded with technological innovation. Finally, adapting to the latest technology is easier for this generation because they have already oriented their lives to digital Technology (Gündoğmuş et al., 2016). Students and students were born in the age of the internet, and they are called "digital natives". While the existing technology is not intended for upgrading, each digital technology or technical innovation has entered the space, including blogging, efficient memos, podcasting, and virtual space. Among others is the latest AR technology, which gains energy upgrades (Mehta et al., 2019).

Contrary to popular belief, augmented reality is not a cutting-edge technology and environment. Not only that, the majority of people are already wearing it without getting it; For example, "putting glasses or a virtual mask on your face on Snapchat or Instagram" is an AR snippet because "it's combined with this filter" (Halupka, 2016). This is a very robust technology because 9 out of 10 manufacturers want to use it in their marketing campaigns (Karacan & Akoğlu, 2021). With the continued availability of mobile features, mobile AR is expected to be one of the most influential technologies in the next decade. To be more specific augmented reality (AR) is a state-of-the-art technology that allows customers to experience 3D movies, images, sounds, or defined points by scanning drawings on mobile features. AR is not limited to one point; its colour has already produced a home in a special upgrade (Baker et al., 2017).

Augmented reality (AR) is defined as "a system that combines actual and virtual elements, is interactive in real-time, and is listed in three dimensions", it is commonly regarded as a transitional condition between actual and virtual settings (Bacca et al., 2019; Dwivedi et al., 2021; Idrus & Yudherta, 2016; Jeřábek et al., 2014). AR technology allows for simultaneous interaction between the real and virtual worlds (Lee et al., 2019). Digital information (text, music, photos, video, 3D objects) is dispersed in the natural environment so that it appears to be a part of it. Environmental. It does not isolate the user from the physical environment, which "may be one of the key elements contributing to the growing popularity of AR. Augmented reality apps are classified into two types: image-based applications and location-based applications. Image-based applications are further classified into two types: (a) marker-based labels that require labels (e.g., Quick Response Codes) and (b) unmarked tracking, in which images are used as triggers for multimedia content playback (Reality, 2017). The entrance of users in a particular location triggers location-based application. Many research has concentrated on AR technology in recent years, with considerable education and other disciplines between 2008 and 2013. Specifically, and according to literature evaluations from 2007 to 2015, studies on the use of augmented reality (AR) for education have increased steadily since 2007, drastically since 2011, and steadily since 2013–2017 (P. Chen et al., 2017). As a result, AR technology is the fastest growing, gaining popularity as predicted, and this trend is projected to continue. Educational groups have identified AR technology as one of the most promising technologies to be embraced by educators in the following years, and it, along with virtual

reality (VR), "has the potential to become a standard tool in education"(Agrawal & Pillai, 2020; Bacca et al., 2015; Belani & Parnami, 2020; Halupka, 2016; Tzima et al., 2019). AR education has been studied at all levels of education, including early childhood education, primary and secondary education, elementary school to university level, and various types of students at the kindergarten level, elementary to high school students, students, adults, the elderly, technical and vocational higher education, and students with special needs(Klimova et al., 2018). The researchers' overall conclusion is that AR can provide various learning opportunities with various benefits for teaching and learning.

Furthermore, augmented reality applications can increase the learning process, motivation, and learning efficacy(Halupka, 2016). AR motivates and interests students, significantly boosts learning motivation, increases students' creativity, provides a more realistic learning experience , and helps users learning with experience in the real world(Rusli et al., 2019). More particular, several systematic studies and reviews of research and applications indicated that AR applications boost student performance by assisting the user is concentrating on specific activities, improving student motivation, and increasing student engagement(P. Chen et al., 2017; Karacan & Akoğlu, 2021; Tang et al., 2019). They were activating students with an opportunity, reducing instructor workloads in the laboratory, and saving time (for example, "students complete their experiments early and use equipment more efficiently", improving students' laboratory skills and attitudes toward their laboratories, and assisting students in developing skills such as critical thinking, problem-solving, and communication.

## AR and VR

Virtual reality (VR) and mixed reality are often mistaken with augmented reality (AR). Milgram, Takemura, Utsumi, and Kishino (1994) utilised a reality-virtuality continuum to explain how these various kinds of reality interact. Figure 1 shows the situation. AR is located between the physical world and a fully virtual environment on this continuum, in an area known as mediated reality. Augmented reality, which is closer to physical reality, and augmented virtuality, which is closer to virtual reality, are both examples of mediated reality.

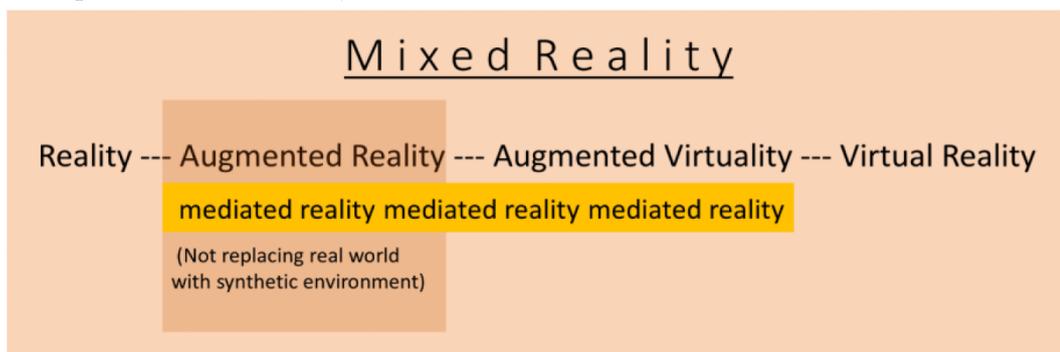


Figure 1. The location of AR in the continuum. Adapted from Milgram, Takemura, Utsumi, & Kishino

## A short history of AR

The beginnings of AR research may be traced back to the 1950s. Morton Heilig (1926-1997), a cinematographer, believed that film should be able to pull spectators into the onscreen action by effectively using all of their senses (Carmigniani et al., 2011). Tom Caudell invented the phrase Augmented Reality in 1990. He and a colleague, David Mizell,

created a head-mounted computer visualisation device to assist workers in finding wires aboard aircraft (Siltanen, 2012). Milgram, Takemura, Utsumi, and Kishino (1994) suggested a hybrid AR technology paradigm that included both reality and virtuality. During the creation of this model, the fundamental principles of AR technology were included (C. M. Chen & Tsai, 2012). Azuma performed the first survey on the usage of AR in 1997. AR has advanced quickly in recent years, thanks to mobile apps like Participatory Augmented Reality Simulations (PARS) and Mobile Augmented Reality (MAR).

AR (augmented reality) technologies The use of tracking technologies is critical in AR. Marker-based tracking and location-based tracking are the two most common types of tracking. Marker-based tracking refers to location tracking using a fiducial marker, which is an optical image (or an interest point) placed in a scene as a fixed point of reference. These markers, which may or may not utilise QR codes, serve as a link between the actual environment and augmented reality material such as 3D models or movies. The augmented reality material is tied to a particular, real-time location via location-based AR monitoring. Users may access digital geospatial data that has been collected and put over their real physical surroundings. In this situation, precision is essential (Saxena, 2015). Location-based tracking is shown in the popular game Pokémon GO. AR technologies aren't confined to any one kind of display technology, such as a head-mounted display (HMD), nor are they restricted to the sense of sight. AR may be utilised to improve smell, touch, and hearing (Carmigniani, 2011). "As devices have gotten cheaper, smaller, and powerful enough to run apps, technology has caught up with the concept of augmented reality" (Salmon & Nyhan, 2013). Smartphones, cameras, and digital projectors have all been used to enhance reality in addition to HMDs. Because they are equipped with cameras, applications, and an internet connection, smart phones play a significant part in AR. They allow users to overlay virtual graphics and media over a real item, such as a photograph or an object, by pointing the camera of their smartphone at the image or object. The user is then exposed to the augmented virtual layers, which may include video, 3D animation, or written explanation. This makes it possible to "transform a classroom setting into a virtual learning environment: for example, actual cultural objects eliciting pictures or films of their history, wall maps showing geographical locations, and portraits eliciting real interviews" (Carmigniani & Furht, 2011). Figure 4 shows an example of augmented reality in the classroom: When the mobile device scans a marking on the textbook, videos on that aspect of grammar/culture are played.

## **METHODS**

The author compiles the research using literature - based methods for idea creation. The first stage is the author's deliberate and iterative search to find the most relevant social, organizational, technical, and educational literature papers. References to this search result are limited to peer-reviewed scientific publications published in English and articles on the use of Augmented reality technology in foreign language teaching. Selecting two technical platforms selected two technology platforms for managing research data, Mendeley for literature reference and NVivo for handling data from qualitative analysis. The author uses qualitative content methods to evaluate and synthesize the data collected for each point of view. Find topics related to future trends and educational technology capabilities. Discover some early topics related to future trends and educational technology capabilities through this approach. Authors can improve the skills and context of use described in the literature with further loops. The authors divided their research into two parts: educational technology trends and the use of Augmented Reality media. The list of capabilities is increased, and the context of use is defined during the coding and logging phase. This result

allows author to offer a more specific definition of technical competence and serve as a basis for further discussion and conclusions.(Osterweil et al., 2016).



Figure 2. The procedure of doing a literature review

## RESULTS & DISCUSSION

### Results

#### Use of Augmented Reality in Foreign Language Teaching

In learning, Augmented Reality is widely used in objective categories to study human anatomy, the nature of animals, chemical responses, and the anatomy of shrubs. However, this article will discuss the position of AR in foreign language teaching. Several augmented reality apps and a reasonably limited resource are available for language teaching (figure 3,4). Mobile augmented reality applications can be classified into three types based on their purpose, intended use, and benefits. This description post divides augmented reality applications into three types: augmented reality with painting platforms, artificial platforms, and featureless. Not only that should note that some applications of this type may involve unsigned promotional module features. However, if the program is based on a painting, it cannot have an unsigned part of augmented reality, as it can only work with flashcards.

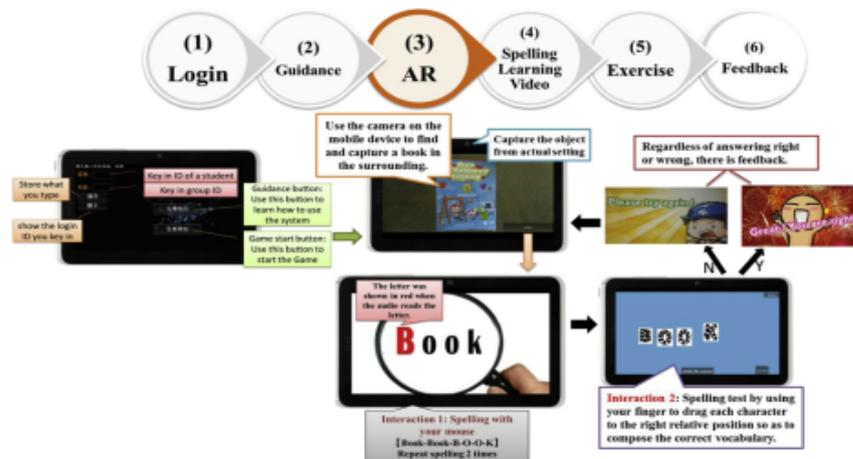


Figure 3. illustration of foreign language vocabulary learning(Hsu, 2017).



Figure. 4. On the left, contents of the 'Magical Animals' English learning set and on the right, kids playing with the educational set at a daycare center(Topsakal & Topsakal, 2019).

Painting platform augmented reality apps: Some apps work uniquely with flashcard sets that can be purchased in-store or via an internet purchase website. Each set of flashcards requires its software features; However, one application can perform multiple flashcards only if the same manufacturer makes them. Usually, these flashcard sets are not meant for language teaching; However, many AR-powered flashcard products show subjects, animals, and cars as vocabulary content.

Featureless AR Applications: The second type of augmented reality application is featureless AR. There are several ready-to-use programs of this type on the market, including Elements 4D, DevAR, AR Real Animals, ARZoo, Catchy Words AR, CoSpaces Edu, Figment AR, and Metaverse. This application contains a source of energy available for the teacher category; However, note that these expired applications may not always align with the teacher's training goals or always match the teacher's wishes. Finally, the ready-to-use program in program will want the right learning approach from the teacher.

Other types of augmented reality apps: Apart from these two types of augmented reality apps, other apps allow consumers to create their own customized augmented reality experiences. Consumers can attach images to movies, sounds, 3D subjects, or even 360-part movies using the app. The rationale for using augmented reality as a learning tool is to allow the integration of state-specific multimedia sections and be helpful for students' language and 21st-century skill development(Karacan & Akoğlu, 2021). In this setting, teachers can use this app to create their own contextual augmented reality experiences. Many smartphone applications are available in the Apple App Store and the Google Play Market that serves this purpose. The most popular mobile apps include Blippar, HPReveal, Augment, PlugXR, Zap works, Screen, Arloopa, Quiver, Metaverse, CoSpaces Edu, UniteAR, and ARize. However, when the earth is flooded with data, we live in the twenty-

first century, and there are no digital applications or technologies to be found. As such, the mobile augmented reality apps shown on paper today may not be there to use when you scroll to the bottom to view this page. It turns out that learning about specific applications at this point makes more sense to master the underlying principles, create those applications in problems, and critically evaluate them according to your learning framework, as the twenty-first century requires. AR works on a straightforward principle. It can be thought of as bridging the gap between the image (for scanning) and the subject of the movie or movie or audio or 3D 360°.

### **Augmented Reality Affordability**

With the soaring use of augmented reality in learning, much research has been done to determine its effects, affordability, and disadvantages. Horizon Assessment, an annual publication that examines popular styles and current technologies in learning, writes that VR, AR, XR, and MR technologies are now integrated into learning (Hodges & Prater, 2014; Johnson et al., 2016; Skiba, 2017). AR has been studied encyclopedically in research and has been proven to be cost-effective in language learning and upgrading for various purposes, including encouragement (Taskiran, 2019),

AR offers the advantage of bringing a genuine and efficient practice experience into a category setting, enabling meaningful conversation in the target language. AR engages students in an enjoyable practice area when applying points (Nincarean et al., 2013; Sirakaya & Cakmak, 2018). Children prefer to be in this atmosphere than on clear earth. In addition, a study found a strong relationship between student's perceptions of the atmosphere of the category and their enthusiasm for language learning (Asrial et al., 2019; Gündoğmuş et al., 2016; Szyszka, 2015).

Student encouragement is one of the results of AR that is very often reviewed in research. Encouragement enhancements are delivered in various ways, including AR-enhanced literature, AR-platform nursery training, and AR-enhanced content forms. To start, early-year elementary school children see augmented reality as a motivator after creating an enhanced pop-up novel (Jamrus & Razali, 2019). Beneficial effects on encouragement are not limited to elementary school children. When early high school students experiment with augmented reality, they show increased drive. Similarly, an experimental study examining two different instructional categories created an increase in secondary school motivation (Karacan & Akoğlu, 2021).

Multimedia: Augmented reality technology offers various forms of multimedia, including reading, image, film, audio, and subject, in 3 formats (Almenara et al., 2017). The multimedia section provides language acquisition for producers by reducing cognitive weight and anxiety (Huang & Chiu, 2015). AR contextualization and multi-time stamp tools integrate into clear-earth environments, reducing cognitive stress by providing students with "perfectly positioned scaffolds" (Quandt et al., 2018). On the other hand, a study did not make statistically significant comparisons in performance between the learning materials used (- & Isnani, 2017).

Content Withholding: It can be said that encouragement alone is not enough to correct the use of digital technology in tutoring. Not only that augmented reality technology helps in data storage, content description, and insight acquisition. Several studies in adrift compliance have proven the extraordinary impact of AR on data description. In addition, it has been noted that AR technology improves material retention by bridging the gap between philosophy and application through its ability to incorporate virtual subjects into natural areas (Karacan & Akoğlu, 2021). This is aided by further research that proves that time holding is far from affordable compared to other multimedia alternatives and conventional category spaces (Lai et al., 2020).

Increased enrollment is another cost-effective feature of augmented reality technology in learning. Students, teachers, and modules all relate to providing an "urging meaningful language guidance" (Parmaxi & Demetriou, 2020). underlined the importance of learning augmented reality applications in increasing teacher-student participation and students. This is corroborated by bonus research, showing that category four students show more peer interaction and communication (Chiang et al., 2014). Not only that, but the interaction of the student module also initiated by AR improves how to practice guiding, creating an increase in training ability (Joo-Nagata et al., 2017; Hwang et al., 2016). Preschoolers who study the English alphabet with AR applications also prove better interactions with content in experimental research than those in the control group (Safar et al., 2017). Not only that, but this interaction also creates an increase in test results.

Academic success, not just encouragement and interaction, is described in related literature. In their meta-review, (Jamrus & Razali, 2019; Klimova et al., 2018) underlined the significance of student outcomes as one of the most frequently cited costs of AR learning. An augmented reality game is used to direct animal vocabulary to students who practice English as a foreign language in experimental research. Students using augmented reality games made "much faster gains in English language training" than the control group using the conventional approach. Interestingly, one study found that while academically successful students did not increase, children with lower academic results increased significantly in the AR-assisted stage (Karacan & Akoğlu, 2021; Safar et al., 2017). For Freitas and Campos's (2008) research with category two elementary school students, the SMART AR system, a learning system that uses augmented reality to direct points, has had an important impact on group collaboration in a holistic manner. Each student functions actively. The previous section illuminates the use of augmented reality multimedia. It has been shown that can visualize learning content can visualize learning content for students (Ibáñez et al., 2014). Several studies have shown that augmented reality helps students see complex bonds in lessons (Wu et al., 2013). In addition, (Clark & Dünser, 2012) used augmented reality to describe colour novels on a paper platform that involved augmented reality features, which found to help students abstract descriptions of data.

Language Skills: The impact of augmented reality technology on language skills is also considered. For example, a research study expanded the ubiquitous augmented reality-enabled practice area called Hello and saw increased students' listening and dialogue skills (Liu, 2009). also tested writing skills experimentally about AR, and the results showed that students who used AR in their notes experienced an increase in point control, posting form, and speech options (M. Wang et al., 2018). In addition, a very detailed research study found that writing instructions had a more significant impact on "long-term memory, motivation, and self-regulation of the cognitive way of writing". The application of augmented reality technology in learning is not limited to speech communication, observing, and writing. A research study led to creation of the software "Letters Alive," which directs elementary school students to read vocabulary cards enhanced with relevant 3D phrases and cartoons (Johnson et al., 2012). Likewise, a research study found that children and infants who were taught to use augmented reality multimedia applications had increased pre-literacy skills (Abd Majid et al., 2018).

Along with the benefits of traditional learning and the increase in language skills, the effects of AR on vocabulary development have been explored and documented globally in literature (Hwang et al., 2016). Due to its multimodal presentation, augmented reality is said to be an efficient tool for "enhancing the vocabulary dimension of language learners" (Vedadi et al., 2018). An experimental study found that a group of aged students who used AR to acquire vocabulary improved their academic ability and speech memory (Santos et al., 2016). Likewise, children have a high-income level for augmented reality technology, which is used for vocabulary development (Juan et al., 2010). This income increases

vocabulary skills and positive actions (Barreira et al., 2012). We review the linked modules and cover some of the AR paid alternatives; even so, AR "cannot be viewed as a potent medicine for all challenges in upgrading English as a Second Language (ESL)" (Rafiq & Hashim, 2018). Not only that but prospective adopters are also required to take language guidance on AR and AR platforms globally.

The Learning Section originally covered AR, apparently, and its affordability. This section assesses the suitability of learning technology in outlining development programs in terms of upgrading, teacher training, teachers, students, customs, infrastructure, and sustainability (Osterweil et al., 2016). It concludes with a practical suggestion for language practice guidance, accompanied by a dialogue and conclusion section.

From the Teacher's Perspective As teachers want to lead in their category, their level of comfort, competence, willingness to change, position, and difficulty of category management all must be considered. It is convenient to say that digital immigrant teachers will struggle with this technology. This is not because the technology is complex; As it turns out, this exposes errors and unexpected problems that may require prior proximity to other technology equipment and programs. Teacher competence in using technology is significant and can raise this competence through reliable development relevant to contextual ways with teacher teaching. Because augmented reality complements a limited set of activities, a solid development program that spans one semester is not an option. In terms of income for turnover, most teachers initially believed that augmented reality technology was complicated to understand and use; however, they get a fresh perspective and feel empowered after participating in the application stage. When this technology is integrated into activities, category management becomes a concern that teachers need to address. When students are having fun, the category space can be free of control. However, when teachers incorporate this technology properly into their profession, it becomes a powerful tool. The curriculum includes upgrading goals that must achieve and learning instruments must help achieve these goals. While learning augmented reality applications do not readily share this, they help students visualize designs and insights (Sanabria & Arámburo-Lizárraga, 2017). Learning augmented reality applications do not consider the upgrading of students; Finally, AR seems to be limited to multimedia events for now. This means that technology custom is another aspect that needs to be considered. If the teacher selects the available content and maintains control of the method, augmented reality can be relevant traditionally and appropriately.

From the Student's Perspective, On the other hand, students are one of 2 essential aspects to consider when assessing learning technology; one is a teacher. Their comfort with technology, accessibility to technology, and ability to adapt to change need to be carefully evaluated. The students of this generation developed with many technical features loaded with unlimited applications (Creighton, 2018; Q. E. Wang et al., 2013). In that case, there is a high probability that they are friendly with augmented reality technology (Lyu et al., 2013). However, they must first be encouraged by their teacher. It is also possible that students could make unexpected use of technology afterwards, as the author noted during his session on augmented reality. However, accessibility is a concern because AR technology wants smartphones, which every young child does not have.

On the other hand, many authorities have decided to provide pills for all students and interactive notebooks in schools in recent years. Pill-platform upgrading is a priority in some schools, which makes augmented reality technology more accessible. In addition, the latest improved design, known as BYOD (Bring Your Device), allows students to bring their gadgets to schools, such as pills, smartphones, or PCs. BYOD makes it easy to use augmented reality technology. In terms of adaptability, it is convenient to consider that children will want to use technology both in and out of categories (Li et al., 2017).

## **Discussion**

### **Conception of Learning**

Almost half (46%) of research on AR learning has no conceptual basis. Sociocultural philosophy (9 %), existentialism (5 %), experimental philosophy (5 %), and constructivism (5 %) are the end of abstract visions that are very often taken (Parmaxi & Demetriou, 2020). Therefore, it places teaching participants in clear physical and social conditions while guiding, scaffolding, and providing participatory and metacognitive learning methods such as original research, active observation, peer formation, co-teaching, and peripheral legal participation with various forms of representation. Research by discussing Augmented reality has also been conducted by andreo yudharta with Augmented reality Development as a reading media. The result of the study is the use of Augmented reality can give rise to students' understanding of reading sources (Idrus & Yudharta, 2016). Another study titled Application of Electronic Learning by Utilizing Virtual Reality (VR) and Augmented Reality (AR) Methods in Natural Sciences Subjects (IPA) in Elementary School Students Grade 3 was conducted by Tisa and friends. The result of the study is to use the media of learning Augmented reality to improve the understanding of students more excellent (Anggara et al., 2021). Augmented reality technology has a solid connection to the philosophy of improvement (Dunleavy & Dede, 2014; Spector et al., 2014) Not only that, AR welcomes constructivism because augmented areas are student-focused settings where students receive the latest data on their previous insights (Delello et al., 2015).

Most learning adds to the actual application of working as a multimedia facilitator, turning static paintings on a page into a movie or audio or 3D subject, or positioning a 3D subject at the end of your visual. With this method, the application of learning can be said to use the cognitive philosophy of multimedia learning, which explains that practicing through federation with painting, sound, and film creates deeper learning than practicing only through static reading (Bhatti et al., 2017; Draus, 2020; Greer et al., 2013). Under the agreement, researchers in this field use the philosophy of multimedia education as a framework to improve augmented reality learning applications (Santos et al., 2016).

The adopted enhancement philosophy is determined by the enhancement method to be used. (Fan et al., 2020) classifies this AR platform upgrade strategy into three types: "instruction by submission (i.e., instruction focused on informal teachers), instruction with findings (i.e., comprehensive student-focused instruction), and collaborative training (i.e., student-focused training)—concentrated group research. Instruction through the submission strategy refers to the presentation of instructional data through AR through teacher-guided instruction using cutting-edge implementers, accompanied by student-led research. This teaching method is based on the Ausubel Philosophy of Meaning Improvement (1977), which views the practice as a liberal effort accompanied by student participation in meaningful training activities.

On the other hand, through discovery, instruction refers to creating insights based on previous experiences through self-discovery, with a prolonged body and shifting responsibilities, the liberal web. This method is replicated in categories by teachers who perform instruction and use augmented reality to provide content, accompanied by students associated with programs to apply previously acquired insights and seek current insights (Fan et al., 2020). Collaborative training strategies mix group instructions. Small and requires students to work in groups to solve problems. The study used an AR-enhanced collaborative training methodology in which teaching participants participated in AR-enhanced activities.

### ***Infrastructure and Longevity***

It is time to think about equipment, storage, maintenance, electricity, and internet connectivity when assessing the energy sources of learning technologies. The school's internet infrastructure also plays a role in the success of AR technology because it wants to extract large amounts of information from the internet in real-time (Oliveira & Martins, 2011). To effectively practice modern technology in the classroom, teachers and students must have access to smartphones and pills and knowledge of this technology. On earth, where 21st-century skills are valued, this is not actual weight in school. Most schools have a Wi-Fi connection, and the information needed for augmented reality experiences should not cause problems. Above all, technological equipment and design must be sustainable or economically viable in every way. At this point, the latest technology should be considered in terms of payment, funding, return on investment, equipment maintenance, and correction issues. Free augmented reality technology for him is not a problem for everyone who owns a smartphone.

### ***Community or Social or Political***

It is also essential to examine citizenship, social, and politics when choosing an improvement instrument (Osterweil et al., 2016). Teachers can seek external technical support and administrative approval when submitting AR. Public confusion and antipathy towards modern technology can continue to evolve. Not only that, but private learning bodies may also commercialize AR. Not only that, but augmented reality technology is also quite limited at the social, social, and political levels.

### ***AR Linguistic Assistance & action for EFL***

After analyzing related literature, improving the philosophy, education of teachers, teachers, students, customs, infrastructure, and sustainability of augmented reality technology, this section will suggest promising language training guides. As mentioned earlier, augmented reality is a very efficient tool for multimedia representation. This allows the revival of any static painting through augmented reality. Due to the critical focus of this article on language learning, the planned activities will focus on language skills. As previously indicated, augmented reality technology cannot be expected as a single teaching language. On the other hand, unique augmented reality apps can be used as bonuses and extracurricular activities.

To adapt students to augmented reality technology and to help them improve their dialogue skills, the social network Instagram, known for its filters, can be used. Students can make various films about themselves in dialogue using various masks and filters. Mondly AR can be used as an extracurricular activity to help newcomer students improve their dialogue skills as the app contains content ranging from newcomers to pre-intermediate levels. Lesson novels are often filled with guidance that requires students to make placards; Therefore, students can be given a blueprint to make a classic plaque and equip it with a film of themselves showing the plaque. On the other hand, Quiver can review your images and instruct students in preschool and elementary schools to instruct students in preschool and elementary schools to discuss their creations.

Abandoning observation and dialogue skills is not recommended. Anything that can use for communication is also an observation product. The AR app scope wonder is an iOS app for kids that uses augmented reality to turn everyday space into a usable story.

Improved reading skills using augmented reality technology are also noted in the attached announcements. Students in the AR group provide better descriptions of reading and practice and increased happiness and positive actions due to reading activities on the AR platform (Bursali & Yilmaz, 2019). Other studies have investigated how children aged

6 to 7 read and relate to augmented reality books (Hornecker & Dünser, 2007). For example, a popular floor called The Little Prince currently has a type of AR novel where children can read narratives enhanced by cartoon personalities. Sometimes, this explains the levels in the section, which can help students explain points and explain how they see them. Another software tool for reading is metaverse, allowing consumers to create their own augmented reality stories and tracking.

Despite popular assumptions, augmented reality can use augmented reality to write. After painting their animals on paper and resurrecting them through Quiver, students can create delusional stories. There is little doubt that AR sparks students' imagination through multimedia features, creating more real segmented stories. To a greater degree, augmented reality programs show conjunctions for use in different types of records.

Vocabulary acquisition is one part of a language that is perfectly suited to understanding through augmented reality activities such as "speech pronunciation games, speech insight guides, and positional platform speech activities." The use of AR platform flashcards for vocabulary guidance has become a point of research showing that students who use AR platform flashcards for vocabulary guidance retain more vocabulary over time (Beder, 2012). Along with the idea for this skill-based EFL activity, (Bonner & Reinders, 2018) created and proposed many AR-enhanced EFL activities ranging from "delivery and mentoring" activities to "data gap" activities.

## **CONCLUSION**

In short, it is reported that augmented reality technology used in prolonged learning conditions contributes to some elasticities. Many augmented reality applications can be used and applied in language lessons. Because it did not develop this technology for language learning and upgrading, incorporating activities and obligations requires careful teacher programming. When you think about it carefully in terms of the philosophy of upgrading, the science of teacher training, teachers, students, culture, infrastructure, and sustainability, augmented reality learning may not be the best option for language upgrading because a) it is not explicitly designed for learning, b) it doesn't all fit a specific practice philosophy, and c); however, this technology has a remarkable ability to pollute the upgrading process. AR and VR, MR, and XR will undoubtedly change the whole perspective of learning in the future. Not only that, due to the Covid-19 outbreak, children and instructors have been comprehensive with technology in recent years. As schools reopen the doors of learning, this closeness can be a good part of the AR profession.

In a study, of course, there are limitations. some of the data obtained from this research comes from several articles and websites that are still closed so that the search requires time and accuracy.

## **CONFLICT OF INTEREST**

There is no conflict of interest between the authors, journal management, research sites and the reviewer until this article is published.

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