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## APPLYING VIRTUAL REALITY IN IMPROVING STUDENT'S ENGLISH

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### ABSTRACT

*Virtual Reality is a new technology which widely used and very popular among young generation. Virtual Reality and Artificial Intelligence technologies grow rapidly. ELT in Indonesia is very poorly accepted by students due to the teacher's boring and traditional teaching methods or approach resulting in students' lack of English. So if teachers use new teaching methods by using artificial intelligence integrated virtual reality as a media of teaching then students would probably be interested and the teaching or class can be done from their own home in a virtual world which could also mean less money spent on transportation, lunch, etc. This also makes students better in English on a daily basis. Therefore, using Artificial Intelligence integrated Virtual Reality in ELT helps students improve their English thus can also save money for Parents. Hence, using Artificial Intelligence integrated Virtual Reality as a media in ELT in Indonesia could be an alternative method for ELT to be well accepted by students and to improve students' English.*

**Key Word:** *Information Communication and Technology (ICT), Artificial Intelligence (AI), Virtual Reality (VR), and English Language Teaching (ELT).*

### INTRODUCTION

Technology grows rapidly in this era, The growth of technology also comes the growth of other fields including education which with technology have a mutual support relationship. Some of the newest technologies such as Virtual Reality (henceforth VR), a technology that creates an artificial world based on our reality. Artificial Intelligence (henceforth AI), a technology where computers can interact like human beings.

Indonesia Education System has changed nine times as stated according to Curriculum Development In Indonesian Context The Historical Perspectives And The Implementation by Sri Wahyuni, "The national educational curriculum has experienced changes in the year 1947, 1952, 1968, 1975, 1984, 1994, 2004, 2006, and latest is 2013." But ELT is still the least favourite subject to students due to certain things such as methods of teachings and subject difficulty and no support of the environment.

#### ELT in Indonesia

ELT has been in Indonesia since 1980 as disclosed by TEACHING ENGLISH AS A FOREIGN LANGUAGE IN INDONESIA: A LITERATURE REVIEW by Prof. Drs. Dewa Komang Tantra, Dip. App. Ling, MSc, Ph.D.

*"The 1980 Curriculum emphasized on the subject information and human relations. It had to respect both the media and the role of literacy in students' lives. The areas are particularly suited to the development of language communication, including speech, theatre arts and drama,*

*debate, business communication, consumer education, media, and journalism (cf. Brown & Spada, 2006; Brown, 1987). ”*

But has never been a chosen as a favourite subject by students and even more hated by some of the students of Indonesia. This is due to certain things as mentioned before such as methods of teachings and subject difficulty and no support of the environment also the Education System itself. Teachers have used various of media to make teaching fun from music to power points or speakers to projectors but they rarely search of updates of media that can be used when as mentioned before that in the past years technology including media has developed rapidly and now there are media such as VR googles and AI intergrated gadgets.

If the teachers or the government can embrace these technology or media and combine them then there is a huge possibility that ELT can be fun for students and become a favorite subject to students, and also it may be able to change the fact of English as a foreign language of Indonesia to English as a second language of Indonesia.

### **Technology and Education**

Technology and Education as mentioned before has a mutual support relationship, and some of the newest technology are VR and AI which is still not widely used in eduction. VR or Virtual reality as stated by Rosenblum in Brian Boyles “As technology developed, “virtual reality” became the phrase to represent devices that create an immersive, interactive environment with visual realism.” AI or Artificial Intelligence as mentioned by Rose Luckin and friends

“As computer systems that have been designed to interact with the world through capabilities (for example, visual perception and speech recognition) and intelligent behaviors (for example, assessing the available information and then taking the most sensible action to achieve a stated goal) that we would think of as essentially human.”

VR and AI has been proved of being able to help us in various aspects of life including Education seperately by many researches such as EDUCATION: FUTURE FRONTIERS The implications of AI, automation and 21st century skills needs by NSW Department of Education, and Immersive virtual reality, children and school education: A literature review for teachers by Associate Professor Erica Southgate School of Education. So they probably can help us even more when they are combined as one tool or used together.

### **VR and AI**

According to the Virtual Technologies Trends in Education by Jorge Martín-Gutiérrez and friends says that

“The concept of Virtual Reality (VR) refers to a whole simulated reality, which is built with computer systems by using digital formats. Building and visualizing this alternative reality requires hardware and software powerful enough to create a realistic immersive experience (e.g. VR helmets or dedicated glasses and 3D software).”

According to the Virtual Reality for Teaching ESP Vocabulary: A Myth or A Possibility by Abeer Ahmed Madini and Dalal Alshaikhi state that

“Virtual Reality environments are not new but the term has broadened recently. Freina & Ott (2015) proposed that it originates from the early 60s and that it is of two kinds which are: a) immersive and b) non-immersive. Immersive VR uses additional tools such as (HMD) or the new VR goggles. These tools help presenting an artificial environment using sounds, 3D

images, or other stimuli to give the impression of „stepping inside“ a non-physical world. Non-immersive VR uses computer to generate imaginary or real places.”

Hence VR is a technology or gadgets that can create a non physical realistic environment that can give authentic experience to the user. According to the Artificial Intelligence in Special Education: A Decade Review by Athanasios S. Drigas and Rodi-Eleni Ioannidou mentioned that

“Artificial Intelligence (AI) has been an active area of research for over fifty years. It is usually defined as the study and development of intelligence agents that can perceive their environment and take actions that increase their possibilities of success. Artificial intelligence agents can be either in a physical form of the device (e.g. humanoid robots) or in software form with ‘intellectual’ capacity (e.g. a virtual avatar).”

According to the Artificial Intelligence The Next Digital Frontier? By Jacques Bughin and friends “AI generally refers to the ability of machines to exhibit human-like intelligence—for example, solving a problem without the use of hand-coded software containing detailed instructions.” Hence AI is a technology or gadgets that can do human like thinking in taking action resulting in better success possibilities.

Hence AI integrated VR is a technology or gadgets that can create realistic non physical environment that can also create characters in the environment that can do human like interaction.

### CONCLUSION

ELT in Indonesia is very poorly accepted by students due to the teacher’s boring and traditional teaching methods or approach resulting in students lack in English. Hence using Artificial Intelligence integrated Virtual Reality as a media in ELT in Indonesia could be an alternative method for ELT to be well accepted by students and to improve students English.

Indonesia Education System has changed nine times and ELT has been in Indonesia since 1980 but has never been chosen as a favorite subject by students and even more hated by some of the students of Indonesia. Technology grows rapidly in this era, The growth of technology also comes the growth of other fields including education which with technology have a mutual support relationship. The newest technology are VR and AI which is still not widely used in education but VR and AI has been proved of being able to help us in various aspects of life including Education separately. Hence AI integrated VR as a result of combining AI and VR can possibly be a better help for us in various aspects of life.

The application of VR integrated AI is by inserting an AI system/software to a VR goggles or headwear. This can be improved by working together with neurowear or taking examples from neurowear which is a project team based in Tokyo, focused on creating "communication for the near future" that design prototypes of new products and services based on biological signals such as brain waves, heartbeat etc. Hence creating a headwear that could possibly send our consciousness to a realistic artificial world with characters that can interact like human in where possibly be our subconscious. All this can be supported by Li-Fi to be more efficient.

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