The Development of Virtual Reality as Learning Media in Improving French Students' Listening Ability at A1 Level

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ABSTRACT

In this era of globalization, technology has rapidly developed and impacted on many areas, including in the field of education. These developments have led to the emergence of a new learning process known as mobile learning. Developing learning media based on mobile learning requires online platforms that are both supportive and attractive. One example of these platforms is a virtual reality application. Virtual reality is a form of technology which has the capability of taking people to a 3-dimensional state and allows them to interact with imaginary objects using virtual reality glasses so that the objects seem real. This study is intended to improve French learners at A1 level who had difficulty in memorizing French vocabularies. The virtual reality-based learning media in this study made learning process more interesting and easier for students to memorize objects that they had seen. Therefore, it could help the language learning process and improve students' ability, especially their listening ability. The literature review used in this study involved the development of mobile-based learning media through the implementation of virtual reality. The result of this study is expected to add reference on ways to improve the listening ability of French learners at A1 level.

Keywords: French a foreign language, language skills, mobile learning, virtual reality

1. INTRODUCTION

Technology has played a significant role in developing many sectors, including educational sector. It has changed teaching and learning practices and created a new way of learning using technological devices, such as mobile devices. Learning process with mobile learning can make it easier for students to access learning materials regardless of place and time (Ariputri & Supratono, 2015). Developing learning media based on mobile learning requires platforms that are both supportive and attractive. Virtual reality-based application can be considered as one of these supportive and attractive platforms. Virtual reality (VR) is a form of technology which has the capability of taking people to a 3-dimensional state and allows them to interact with imaginary objects using virtual reality glasses so that the objects seem real. In other words, it also means that VR is a mobile-learning based technology which can bring us to a simulated-environment that is controlled by a computer (Bahar. 2014).

In learning a foreign language, students often find difficulties how to translate a word from the source language into the target language. Due to this reason, a mobile-based learning media is needed to make it easier for students to memorize vocabularies in a foreign language. French learners at A1 level, for example, have difficulties in memorizing, understanding, and expressing French vocabularies, and learning media like the virtual reality can provide a more interesting learning and make it easier for students to memorize objects that they had seen. This study aims to investigate how the media can help the language learning process and improve student's ability, especially their listening ability.

2. LITERATURE REVIEW

2.1 Learning Media

Media has been defined as a tool that can be utilized as a messenger to achieve learning objectives (Wati, 2016) while learning is a process where there is interaction between teachers and students involving reciprocal communication that takes place in educational situations to achieve learning goals (Rustaman &

Rustaman, 2001). Thus, learning media are all forms and means of delivering information that are created or used for learning purposes in connecting messages, stimulating the thoughts, feelings, concerns, and willingness of students so that they can encourage a deliberate, purposeful, and controlled learning process (Suryani, Setiawan, & Putria 2018). In addition, another expert defined that learning media are products of consultation, production and learning processes that involves the use of one or more infrastructure, one or more tools and one or more supports in educational relations and understanding or sending messages to support learning (Brien et al., 1995). It can be concluded that learning media is a tool that can support a learning process intentionally to help students gain knowledge.

2.1.1. The Benefits of Learning Media

Learning media itself has many benefits. Daryanto (2013) explained several benefits of learning media, including to clarify the message so as not to be too verbal; to overcome the limitations of space, time, energy, and senses; to generate passion for learning and increase interaction between teachers and students; to enables students to learn independently according to their visual, auditory, and kinesthetic talents and abilities; and to give the same stimulus, equating the experience, and causing the same perception. Furthermore, Sanaky (2009) explains that the benefits of learning media are to Increase learning motivation. Second, to provide and increase learning variety. Third, to provide the structure of the subject matter and make it easier for students to learn independently. Forth, provide core information and points systematically so as to facilitate the learning process. Fifth, stimulate students to think and analyze. Sixth, create conditions and an atmosphere of learning without pressure. Then the last one to allow students to understand the subject matter systematically presented through learning media.

The utilization of learning media can guide participants to become autonomous learners, it is also designed to create an enjoyable learning (C.-C. Chang et al., 2017. The emergence of recent media technology introduces changes into learning methods and becomes the basis for designing a better quality of teaching and learning procedure. The use of media allows its participants to interact without space and time constraints. Media technology offers interaction in learning process that is not limited to classrooms. Several advantages that the media technology offers include efficiency, cost effectiveness, practicality, standardization, and different learning performance. The prominent aspect from learning through new media technology is the students' development of independence in learning.

It can be concluded from the explanation above that the benefits and objectives of learning media according to the discussions from several experts is that learning media has the benefit of clarifying the material presented to students without any pressure from the teacher, so that students are able understand the material easily and repeat the material provided independently.

2.2 Information Technology (IT)

Information technology combines computing (computers) and high-speed communication lines that carry data, voice, and video (Williams & Sawyer, 2003). The development of information and communication technology makes it easier for us to communicate and exchange information so that distance and time are no longer an obstacle. Moreover, Reynolds (2015) stated that "Information technology (IT) includes all tools that capture, store, process, exchange, and use information. The field of IT includes computer hardware, such as mainframe computers, servers, laptops, and PDAs; software, such as operating systems and applications for performing various functions; networks and related equipment, such as modems, routers, and switches; and databases for storing important data" (p.4).

From the explanation above, it can be concluded that information technology is a form of technology which combines computers and high-speed communication lines that carry data, voice, and video to provide convenience in the process of delivering information from senders to receivers.

2.3 Mobile Learning

The development of information technology in the era of globalization is increasingly fast and the impacts cannot be avoided, including within the field of education. These developments lead to a new learning process with mobile learning as its basis. Mobile learning is a variety of learning which utilizes IT (information technology) to access learning materials anywhere and anytime (Ariputri & Supratono, 2015). Mobile learning for learning media, according to Wibawanto (2017), can focus its learning process and attention on students (student-centered learning) by means of the teacher act as a facilitator and provide learning media so that it can present learning materials or content in forms of text, video, animation and multimedia.

2.4 Virtual Reality (VR)

Mobile learning requires platforms that are both supportive and attractive. One example of them is a virtual reality-based application. Virtual reality is a technology which has the capability of taking people to a 3-dimensional state and allows them to interact with imaginary objects using virtual reality glasses so that the objects seem real. It also means that VR is a mobile learning-based technology that can bring us into a

simulated environment that is controlled by a computer (Bahar, 2014).

2.5 Listening Skills

Listening is an ability that allows a language user to understand the language used orally (Rosyidi, 2009). Listening ability is an important part of and it cannot be ignored in language learning, especially if the purpose of the language learning is to complete the mastery of language skills.

3. METHOD

This study employed a qualitative descriptive method. Qualitative research is "a research method based on the philosophy of post positivism, in which research is used on the condition of natural objects (as opposed to experiments) where the researcher is the key instrument. Data collection techniques are carried out by triangulation (combined), data analysis is inductive/qualitative, and the qualitative research results emphasize meaning than generalizations" (Sugiyono, 2017, p.14).

Data collection techniques are the most strategic step in research because the main purpose of a research is to obtain data (Sugiyono as cited in Arischa, 2019). The study used some data collection (Yuliani, 2018), including literature review and documents. The researchers searched data and information related to the development of virtual reality as learning media in improving French students' listening ability at A1 level. This step is intended to get a theory or literature review about the problem of this research. Secondly, data were collected from documents. In this stage, the researchers collected data and information related to the development of virtual reality as learning media in improving French students' listening ability at a1 level, it is intended to get a theory or literature review about the problem of this research.

Other than the data collection techniques, research also needs data analysis techniques. Sugiyono (2010, p.335), explained that data analysis technique is a process of searching for data, systematically arranging the data obtained from interviews, field notes, and documentation by sorting the data into categories, describing it into units, synthesizing, classifying, and choosing which ones are important and will be studied, and make conclusions so that the data can be easily understood by the researcher and others.

Data analysis techniques were used in this study, including examining all the data that had been obtained from other researchers whose research are concerned with this research, analyzing results of the previous research, and concluding all results from the previous research and explain them.

4. FINDINGS AND DISCUSSION

This part of the study explains findings and how to analyze those findings. Moreover, it explains findings of some other researches that are related to Virtual Reality and improving listening skills at A1 level.

Kusumadewi et al. (2019) raised issues in speaking class, particularly Arabic. The issues include learning situation that are still far from the expected conditions to achieve learning objectives, the situation occurred in terms of learning media, learning environment, and students' speaking ability. Several causes of this issues are, monotonous learning media of Arabic that utilized only a textbook and lack of innovation in its learning. This made students get bored quickly and less motivated in learning it.

This problem also happened to the 8th grade of Arabic speaking class at a number of *Madrasah Tsanawiyah* (Islamic Junior High Schools) in Semarang. It causes low speaking performance from many of the students in there. It happens because there are many students who has low Arabic speaking ability in terms of pronunciation, word mastery, and intonation, while at their grade level, they are expected to be able to arrange and speak simple sentences in Arabic.

One of the solutions for the aforementioned problem is creating a new method in Arabic speaking class that can be useful for teachers and students. One way to achieve this is, establishing a learning media with the basis of mobile learning, hence, teacher and students can use it anywhere and anytime.

Before creating the VR games, the researchers deliver some questionnaire to investigate the kind of media that is suitable for a teachers and students. The results indicated that an application called MVR ABBAS, or an android-based application which utilizes VR technology for the purpose of intercultural education fits students' need. To make it easier for students during an Arabic listening session, this application is operated from smartphone and it can be combined with google cardboard or virtual reality glasses. The conclusion of this research according to Kusumadewi et al. (2019), MVR ABBAS application can help students learn Arabic and has great potential specially to improve students' listening skill. It is furtherly stated that VR is suitable for intensive information visualizations, and finally this research concluded that students can improve the experience of collaboration between real and simulated environment as related to their education by using VR.

Another research within this area was conducted by Pramintya et al. (2017) investigating tests and evaluations to Google Cardboard application to learn vocabularies in a foreign language. The test and evaluation were divided into two types: functionality test and non-functionality test. For functionality test, it is

signified that the application is worth using to learn vocabularies. The result of this test showed that the application was successfully built according to the design. In non-functionality test, the researchers delivered some questionnaires including h5 assessment regarding interface, object resemblance, utility of information, system performance, and convenience of media which consisted of 12 questions. Within the interface question category, the result showed 86.36% of the respondents agreed. For object resemblance questions category, the result showed 89.01% of the respondents agreed. For utility of information question category, the result showed 86.86% of the respondents agreed. For question category about system performance, the result showed 84.85% of the respondents are agree that virtual reality media have good performance. Finally, the last question category about convenience of media, the result showed 78.78% of the respondent agreed.

Almost all questions from the questionnaire were answered with strongly agree. It indicated that Google Cardboard has a positive response from students in helping them learning vocabularies in a foreign language.

From previous researches, we can draw a conclusion that the VR has the potential of becoming one of a new innovation in creating learning media to learn a foreign language and it receives positive impression and give positive impacts for student. This new innovation is expected to motivate students to be more interested in learning and make it easier for them to learn the subject matter by independently at anytime and anywhere.

Because it has a positive impact in improving students' speaking ability, and there is no research found on improving students' listening ability, the researchers decided to conduct research to improve students' listening ability especially for students studying French. This research is aimed to find whether virtual reality as learning media can also make an improvement for students' listening ability and the title of this research is The Development of Virtual Reality as Learning Media in Improving French Students' Listening Ability at A1 Level.

5. CONCLUSION

Based on the findings and discussions from the two previously described studies, a conclusion is drawn from this research. There are some studies conducted on the utilization of Virtual Reality as a learning method to improve students' abilities in learning a foreign language.

One of the studies focused on improving students' Arabic listening ability, and the other one, focused on English vocabularies learning. Both of the aforementioned studies receive positive responses because the results showed improvements on students' speaking ability, and capability of memorizing vocabularies. Moreover, Virtual Reality-based learning

media also has a great potential especially in improving listening ability. However, nothing is devoted to improve listening ability in French learning. Hence, this research was conducted on improving French students' listening ability at A1 level with the utilization of a virtual reality as a learning method and media.

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