# HE USE OF VIRTUAL REALITY IN LEARNING DESCRIPTIVE TEXT AT SMA AL-ISLAM KRIAN

#### **THESIS**

Submitted in Partial Fulfillment of the Requirement for the Degree of Sarjana Pendidikan (S.Pd) in Teaching English



By:

Robby Rizki Imanda D75213097

ENGLISH TEACHER EDUCATION DEPARTMENT
TARBIYAH AND TEACHER TRAINING FACULTY
SUNAN AMPEL ISLAMIC STATE UNIVERSITY
SURABAYA

2018

#### PERNYATAAN KEASLIAN TULISAN

Yang bertanda tangan dibawah ini:

Nama

: Robby Rizki Imanda

Nim

: D75213097

Semester

: XI (Sebelas)

Fakultas/Prodi

: Tarbiyah dan Keguruan / Pendidikan Bahasa Inggris

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Surabaya, 1 November 2018

Pembuat Pernyataan

Robby Rizki Imanda NIM.D75213097

#### ADVISOR APPROVAL SHEET

This thesis by Robby Rizki Imanda entitled "The use of Virtual Reality in Learning Descriptive Text at SMA AL-ISLAM Krian" is ready to be examined by the board of examiners.

Surabaya, 1 November 2018

Advisor I

Mokhamad Syaifudin, M.Ed, Ph.D NIP. 197310131997031002

Advisor II

Drs. Muhtarom, M.Ed, Gred, Dip. Tesol NIP. 196512201992031005

#### **EXAMINER APPROVAL SHEET**

This undergraduate thesis by Robby Rizki Imanda entitled "The Use of Virtual Reality in Learning Descriptive Text at SMA AL-ISLAM krian" has been examined on November 9<sup>th</sup> 2018 and approved by the Board of Examiners.

Dean,

Mas'ud, M.Ag, M.Pd.I

NIP 196301231993031002

BLIK INDOM

Examiner I,

Fitriah, PhD

NIP. 197610042009122001

Examiner II,

Dr. Mohammad Salik, M. Ag NIP. 196712121994031002

Examiner III,

Drs. Muhtarom, M.Ed, Grad, Dip. TESOL

NIP. 196512201992031005

Examiner W,

Hilda Izzat/ Madjid, MA



# **KEMENTERIAN AGAMA** UNIVERSITAS ISLAM NEGERI SUNAN AMPEL SURABAYA **PERPUSTAKAAN**

Jl. Jend. A. Yani 117 Surabaya 60237 Telp. 031-8431972 Fax.031-8413300 E-Mail: perpus@uinsby.ac.id

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Nama	: Robby Rizki Imanda
NIM	: 075213097
Fakultas/Jurusan	: Tarbiyah / Pendidikan Bahasa Inggris
E-mail address	· Robby lmnd @ gmail.com
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#### ABSTRACT

Imanda, Robby Rizki. 2018. The Use of Virtual Reality in Learning Descriptive Text at SMA AL-ISLAM Krian Academic Year 2017/2018. A Thesis. English Teacher Education Department, Faculty of Education and Teacher Training, Sunan Ampel State Islamic University. Surabaya. Advisors: Mokhamad Syaifudin, M.Ed, Ph.D., & Drs. Muhtarom, M.Ed, Gred, Dip.Tesol.

Key word: Virtual Reality, CALL, Descriptive Text.

Regarding to the development of the technology, many schools begin to adapt technology-based media in purpose of facilitating the learning process and attracting students' interest in learning, especially in language learning. However, the use of a computer-based media commonly called CALL must be attended by an understanding of how to adapt the specific media so that the teacher can apply the media in the classroom without causing negative effects to students or teachers. This study aims to examine how the implementation of using VR as a CALL media in the classroom and obtaining the students' perceptions toward the use of this media in learning English. This research was conducted in SMA AL-ISLAM Krian at 10 ips 1 class only. In analyzing the data, the researcher wrote the implementation VR clearly and used questionnaire to obtain the student's perception toward the use of VR by using Technology Acceptance Model (TAM) theory form Davis (2000). The result of the research showed that the teacher implemented 5 among 9 concepts implementing VR in CALL. Whilst the concept which were not implemented by the teacher were the reflection of awareness of self and awareness of other, interacting with native speaker, and manipulation in virtual environment. The reason why the teacher did not implement those concepts was because it required an advanced technology. Besides, concerning about the student's perceptions toward the use of VR, many of students considered it as interesting, comfortable and useful to use in English language learning.

#### ABSTRAK

Imanda, Robby Rizki. 2018. The Use of Virtual Reality in Learning Descriptive Text at SMA AL-ISLAM Krian Academic Year 2017/2018. Skripsi. Pendidikan Bahasa Inggris, Fakultas Ilmu Tarbiyah dan Keguruan, UIN Sunan Ampel. Surabaya. Pembimbing: Mokhamad Syaifudin, M.Ed, Ph.D., & Drs. Muhtarom, M.Ed, Gred, Dip.Tesol.

Kata Kunci: Virtual Reality, CALL, Descriptive Text.

Berkaitan dengan berkembangnya teknologi, banyak sekolah yang mulai mengadaptasi perangkat media berbasis teknologi dengan maksud agar dapat mempermudah proses pembelajaran dan menarik minat siswa untuk belajar, khususnya dalam pembelajaran bahasa. Namun penggunaan suatu media berbasis komputer yang biasa disebut CALL haruslah disertai dengan pemahaman agar guru dapat menerapkan media tersebut di dalam kelas tanpa menimbulkan dampak buruk baik bagi siswa ataupun guru. Penelitian ini bertujuan untuk menguji bagaimana penerapan VR sebagai media CALL di dalam kelas dan mengetahui presepsi siswa terhadap penerapan media ini dalam pembelajaran bahasa inggris. Penelitian ini dilakukan di SMA AL-ISLAM Krian pada siswa kelas 10 IPS 1 saja. Dalam menganalisa data, peneliti menulis prosedur penerapan VR dengan jelas dan menggunakan kuesioner untuk mengetahui siswa terhadap presepsi penerapan VR menggunakan Technology Acceptance Model (TAM) oleh Davis. Hasil penelitian ini menunjukkan bahwa dalam prosedur penerapan VR, guru menerapkan 5 dari 9 konsep implementasi VR ke dalam CALL. Adapun konsep yang tidak diterapkan oleh guru adalah refleksi terhadap dari kesadaran orang lain, berinteraksi dengan orang asli, dan manipulasi dalam lingkungan virtual. Alasan tidak diikutsertakannya tahap ini adalah karena tipe VR yang digunakan guru tidak mampu mendukung aspek tersebut dalam pembelajaran bahasa inggris.

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#### **CHAPTER I**

#### INTRODUCTION

This chapter contains why the researcher is concerned about the use of Virtual Reality. It includes (1) research background (2) research problem (3) objective of the study (4) significance of the study (5) scope and limitation (6) definition of key terms.

## A. Research Background

Today technology has growth fast. Every aspect in the world especially in teaching learning process integrated and helped so much by the technology. Therefore, a creative teacher must be able to bring the technology in the learning process to create a good learning experience for students. In Indonesia, it was attached in *PEMENDIKNAS No 16 tahun 2007* that the teacher must be able to use information and communication technology in the learning process<sup>1</sup>. Reeves (1998) defined that learning with technology means to use the technologies as cognitive tools to create constructivist learning environment<sup>2</sup>.

The use of technology as a media in the learning is very important especially in the English Language Teaching (ELT). Linfors (1987) state that vision and hearing are the two dominant senses that media technology can provide to the students and present greater opportunities for learning linguistic input<sup>3</sup>. It is also important for the teacher in selecting media to be used in the classroom. Wright (1989) mentioned some consideration in selecting media: it should be easy to prepare, it should be easy to organize, it should be interesting to the student and teacher, and the language must be authentic<sup>4</sup>. By the passing of the time, many kind of technology that can be used as media in language learning, one of them is Virtual Reality (VR).

<sup>&</sup>lt;sup>1</sup> Depdiknas .2007. Pemendiknas No 16 Tahun 2007 Tentang Standar Kualifikasi Akademik dan Kompetensi Guru. Jakarta: Depdiknas.

<sup>&</sup>lt;sup>2</sup> Reeves, T.C. (1998). *The Impact of Media and Technology in School*. The University of Georgia. p. 4-25.

<sup>&</sup>lt;sup>3</sup> Linfors, J. (1987). Children's Language and Learning. Englwood Cliffs, NJ. : Prestice-Hall.

<sup>&</sup>lt;sup>4</sup> Wright, Andrew. 1989. *Visual Materials for The Language Teacher* (5<sup>th</sup> ed). Hongkong: Wilture Enterprise (International) Ltd.

Virtual Reality (VR) is a computer technology that gives the illusion to those who use it, of being immersed in a virtual environment that does not really exist. It is a computer simulation of real situation where the human subject may interact with the virtual environment. Sometimes by the mean of non-conventional interface like glasses and helmets in which the scene represented and the sound reproduced<sup>5</sup>. Most of people already have known today's VR for much different kind of application such as video games, 3D video through smartphone and tablet. At this time, the majority of educators have not yet understood that VR could be used as a teaching and learning tool to enhance student's learning experience by implications of these developments in the learning process<sup>6</sup>.

In this study, the researcher focused on identifying the implementation process of Virtual Reality (VR) as a media to teach descriptive text. VR is considered as appropriate media in learning descriptive text, because by using VR students can observing the object or thing that will be descripted clearly in the virtual environment. The researcher will also examine the student's responses about the use of VR in learning descriptive text to provide the reflection for the English teacher in order to make the better way in developing of the usage of VR for other material. Freiberg and Stein stated that the perception of the student is the key components to analyse the classroom climate<sup>7</sup>.

Virtual Reality device has been used in the teaching process by the English teacher at SMA AL-ISLAM Krian. Each class in SMA AL-ISLAM Krian has LCD, Projector, and other supporting facility. Wi-Fi access with the fast connection speed is also provided at whole of the school, so the teachers and the students can connect to the internet easily. Almost 95 % of SMA AL-ISLAM students have a smartphone that can support the use of VR devices in the learning process. The material could be obtained from the YouTube or App store such as Playstore. Based on conversation researcher with the English Teacher of

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<sup>&</sup>lt;sup>5</sup> Achille, C., Fassi, F., Fiorillo, F., Rechichi, F. & Terrugi, S. (2016). *VR for Cultural Heritage – A VR – WEB – BIM for the Future Maintenance of Milan's Cathedral*. <sup>6</sup> Ludlow, B.L. (2015). *Virtual Reality: Emerging Applications and Future Directions*. Rural Special Education Quarterly, 34(4), 3-10.

<sup>&</sup>lt;sup>7</sup> Freiberg and Stein, "Measuring, Improving and Sustaining Healthy Learning Environments." School Climate: Measuring, Improving and Sustaining Healthy Learning Environments."

SMA AL-ISLAM Krian, the limited amount of VR glasses is the only problems faced by the English teacher. To overcome that problem the English teacher asks the students to make a group and use the VR by turn. Finally, the researcher chooses SMA AL-ISLAM as the Setting of the research, because the English teacher has used VR to teach descriptive text in his class.

The researcher will take one class as an object to conduct the research. The researcher will analyze and observe the whole learning process by comparing the English teacher's lesson plan and the real learning process in the class. The researcher will also give questionnaire to measure how much students are aware of the use of VR as a media in learning descriptive text. According to Slameto (2003), in measuring the perception is almost the same as measuring the attitude. The attitude scale can be used or modified to uncover perception that can be known whether perception of one's positive or negative toward something or object. Considering this, the researcher will use Likert scale to obtaining the responses of students toward the use of Virtual Reality.

The other research talking about Virtual Reality is the research by I Putu entitled Aplikasi Virtual Reality Media Pembelajaran Sistem Tata Surya. In this research I Putu Focused on the implementation of Virtual Reality as the media in learning the solar system. The object is 6 grade students of SD Sukabirus. The finding of the research is the users agree that Virtual Reality as a media in learning solar system is effective can make the learning process easier and more fun. The conclusion obtained from the questionnaire with 60% for the agreement on content aspect. Another research done by Mubarak Alfadil entitled Virtual Reality Game Classroom Implementation: Teacher Perspective and Student Learning Outcome. The researchers focused on the influence of the Virtual Reality Game (VRG) House of Languages on ESL vocabulary acquisition of intermediate school students and establish how the VR technology aids in improving vocabulary skill. The finding from the study indicated that students using the VR game House of

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<sup>&</sup>lt;sup>8</sup> Slameto, (2003). Belajar dan Faktor – Faktor yang Mempengaruhinya. P.105

<sup>&</sup>lt;sup>9</sup> I Putu Astya Prayudha. *Aplikasi Virtual Reality Media Pembelajaran Sistem Tata Surya*. Bali: Merpati. Vol. 5,No.2:72-79.

*Language* had greater achievement in learning vocabulary than those using traditional method in learning vocabulary <sup>10</sup>.

#### B. Research Problem

According to the researcher's concern, the research problem is formulated as follow:

- How is the implementation of the use of virtual reality for learning descriptive text?
- 2. What are the student's responses toward the use of virtual reality for learning descriptive text?

## C. Objective of The Study

Based on problem of study above, the researcher decided the objective of the study as follows:

- 1. To describe the implementations of the use of virtual reality as a media in learning descriptive text.
- 2. To know student's responses toward the use of virtual reality as a media in learning descriptive text.

# D. Significance of The Study

The research results are expected to give significant input to the following people:

1. The student:

The finding of this research is expected to help improve the student's awareness regarding of why media is crucial to help their learning. They can take advance of other technology media in order to get greater learning experience by themselves.

2. The teacher:

This research can hopefully suggest the teacher a new way of teaching using virtual reality as media and help prevent the student's problem on English language learning.

3. The future researchers:

The finding of this research is expected to be able to give an input for other researchers to conduct further research related to virtual reality as media in learning writing or other skill.

Mohammed Mubarak Alfadil, Doctoral Dissertation: "Virtual Reality Game Classroom Implementation: Teacher Perspective and Student Learning Outcome". (Colorado: University of Northern Colorado, 2017).

## E. Scope and Limitation of The Study

According to the topic above, the scope of this study is the teacher's way in implementing virtual reality as media in English language learning especially in learning descriptive text. The limitation of this study is using virtual reality that will be conducted at SMA AL-ISLAM Krian. The object of this research will be limited to tenth grade of SMA AL-ISLAM Krian. The reason why researcher takes the tenth grade because the students has high motivation in learn English and the teacher has an innovation to enhance the student's learning experience by using an interesting media.

# F. Definition of Key Terms

To avoid misunderstanding and misinterpretation, the researcher would like to describe some terms used in this research as follows:

## 1. Virtual Reality

Kimer defined virtual reality as a computer interface that permits the user to interact in real time, in a tridimensional space generated by a computer, using their feelings, through special devices<sup>11</sup>. In this research, English teacher in SMA AL-Islam Krian using VR glass and Smartphone to display virtual environment.

# 2. CALL (Computer Assisted Language Learning)

Beatty stated that CALL is any process in which a learner uses a computer and, as a result, improves his or her language. <sup>12</sup> In this research, CALL is the technology media which is provided by the English teacher of SMA AL-Islam Krian in form of Virtual Reality Devices.

# 3. Student's Responses

Student's response described as a student's idea or reaction as an experience about an object that gained by using information and interpret a message. This output process means the student as an individual can give the judgment of belief and as a result it affects the way the

<sup>&</sup>lt;sup>11</sup> Kirner, C. Realidade Virtual e Aumentada, Acesso em Março 2012, Disponível em <a href="http://www.realidadevirtual.com.br">http://www.realidadevirtual.com.br</a>>.

<sup>&</sup>lt;sup>12</sup> Ken Beatty, "*Teaching and researching computer-assisted language learning*" (Harlow, England; New York: Longman, 2010). 7

student think and feel. In this research, students' response means student's idea or reaction and their judgment toward the use of virtual reality that will affect to their learning outcomes in learning descriptive text.

## 4. Writing

Writing is an activity to express human taught, ideas, and opinion about everything in mind that written in symbol language. In this research writing means the student's ability in described the object or thing in form of descriptive text.

# 5. Descriptive

Descriptive, according to Pardiyono, concerns with describing an object such as human or animal. It focuses on the characteristic's representation by using adjective (quality or quantity). <sup>13</sup>

 $^{\rm 13}$  Pradiyono. 12 Writing Clues for Better Writing Competency.<br/>(Yogyakarta: Andi. 2006). Page. 165

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#### **CHAPTER II**

#### REVIEW OF RELATED LITERATURE

This chapter deals with the theories related to the use of Virtual Reality as media and student's responses of using Virtual Reality in English language learning. It contains review of related literature and previous study.

## A. Review of Related Literature

#### 1. Media

#### a. Definition of Media

In teaching process teacher transfer the knowledge to the students in various way. Teacher needs some tools to be used in the learning process to make the learning process more effective and easier for student. The use of appropriate learning aids also can create an active classroom situation. Moreover, Harmer stated that "as a language teacher, we use a variety of teaching aids to explain language meaning and construction, engage students in a topic or as the basis of a whole activity.<sup>14</sup>"

According to Gerlach and Elly, there are six general categories of media. <sup>15</sup> They are:

#### 1) Picture

Picture consists of photographs of any object or event, which may be larger or smaller than the object or event it represents.

# 2) Audio Recording

Recording made on magnetic tape, discs, motion picture, and soundtrack. These are reproduction of actual events or sound track.

#### 3) Motion Picture

A motion picture is a moving image in color or black and white produced from live action or from graphic representation.

<sup>&</sup>lt;sup>14</sup> Jeremy Harmer, the Practice of Language Teaching, (Cambridge; 1998.) P.134

<sup>&</sup>lt;sup>15</sup> Venon Gerlach and Donald Elly, *Teaching and Media: ASystematic Approach*. (New Jersey: Prentice Hall. 198). P. 297

#### 4) Television

This category includes all types of audio video electronic distribution systems; which eventually appear on television monitor.

5) Real things, simulation or model.

This category includes people, events, object and imitation of real things. Imitation of real things can use as a substitution for the actual object or event. They are, in fact, life itself, often in its natural setting. Simulation is the replication of real situation, which has been designed to be as near the actual event or process as possible. Many media, including computer, tape recordings, and motion picture can be used for simulation. A model is replication or representation of reality. It is often in scale and may be miniature, exact size or an enlargement.

6) Program and computer-assisted instruction.

Programs are sequences of information (verbal, visual, or audio) which are designed to elicit predetermined response. The most common examples are programed textbooks or instructional programs prepared for computers.

From the six categories above, not all of them can be applied in the classroom. According to Gerlach and Elly, to select the appropriate media, the teacher must consider the characteristics of the students which directly relate to the learning process, such as verbal abilities, visual and audio perception skill, experience, intelligence, motivation, personality and social skills <sup>16</sup>. In addition, Brown stated that there are six principles in selecting media <sup>17</sup>:

#### 1) Content

Media (i.e. interactive CD) have significant relation with the lesson. The choice of certain

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<sup>&</sup>lt;sup>16</sup> Ibid., p. 254

<sup>&</sup>lt;sup>17</sup> Ibid., p. 79

media must be conformed to the lesson (message) that will be given to the students.

# 2) Purposes

The use of the visual aids should contribute to the teaching and learning process significantly. It means that the media can facilitate the teaching-learning process.

## 3) Price

Before buying certain visual aids, a teacher should consider whether the cost or money spent is accordance with the educational result derived from its use.

#### 4) Circumstance of use

In choosing a visual aid, a teacher should take into account the environment (school) where he/she teaches. He/she should think whether the aid would function effectively in that environment.

## 5) Learner's verification

A teacher should think whether the aid has been tested to certain students. He/she should consider if the tested are similar to the students whom he/she teaches.

#### 6) Validation

A teacher must think whether there are data providing that the students learnt accurately through the use of aid.

Considering some principles about media above, it should be better if the teacher follows the principles to make the use of teaching aids more effective and the goal of the lesson can be achieved accurately.

# b. Function of Media in Teaching-Learning Process.

The use of media in teaching-learning process is crucial. According to Levie and Lentz in Arsyad Azhar (2005: 16), Revealed the four function of the media, especially visual media, namely<sup>18</sup>:

Arsyad, Azhar. 2005. Media Pembelajaran. PT RajaGrafindo Persada. Jakarta. Buku Ajar Kelas IV. 2004. Tim Abdi Guru Erlangga.

#### 1) Attention Function

Attention function visual media is a core, that is interesting and directing students to focus attention to the contents of subjects relating to the meaning of the visual display of text or attached to the lesson material.

## 2) Affective Function

Affective function visual media can be seen from the comfort level when students learn (or read) the text image.

# 3) Cognitive Function

Cognitive functions of visual media seen from the findings of research which revealed that a visual symbol or picture expedite achievement of the goal to understand and remember the information or messages contained in the image.

## 4) Compensation Function

Compensation function of teaching media seen from the results of research that the media provide a visual context to understand the text to help students weak in reading to organize information in text and remember it again. In other words, the media work of teaching to accommodate students who are weak and slow to accept and understand the content of subjects presented with the text or presented in verbal.

# c. Teaching Writing Using Technology Media

A technology such as Virtual Reality can be used as a tool to facilitate learning-teaching activity. There are many advantages of employing that media. As a result this can give a unique experience not only for students but also for teacher.

Writing method according to Bowen Barbara has been developing along with the advancement of technology and its availability for students in the classroom. The research has shown that students are more engage in learning activity while the teacher uses a technology.<sup>19</sup> In this case, the use of technology in teaching writing can help facilitate teaching and learning process.

Xiao and Katsipataki stated that the digital technology is considered as a supportive tool rather than as a replacement for conventional teaching. <sup>20</sup> So, it is important to understand the technology as additional means in regard to the learner's experience.

It can be concluded that technology such as Virtual Reality belong to digital technology. In this era, technology becomes a part of human life. This means that technology can support human's daily activity not only for social purpose but also for educational purpose.

It emerges a term "CALL" which is the involvement of electronic online media in teaching-learning process. By applying CALL in that process, it can give some benefits:

- A variety of sources and media such as video, recording, and internet.
- A unique activity.
- Diverse linguistic input
- Accessibility of huge linguistic corpora.
- Create independent learning awareness.
- Supportive tool to facilitate student's task or project.
- Improve student's self-confidence and freedom to experiment.
- Students access for publication.
- A wider connection with other students from other country.<sup>21</sup>

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<sup>&</sup>lt;sup>19</sup> Bowen, B. Ways to Use Technology to Motivate Students' Writing. (*International Journal of Arts and Commerc* 2014), p.2

<sup>&</sup>lt;sup>20</sup> Xiao, Z. The Impact of Digital Technology on Learning. (A Summary for the Education Endowment Foundation 2012), p.5

<sup>&</sup>lt;sup>21</sup> K. Beatty, *English Teaching Lab*, (November 13, 2006). http://englishteachinglab.blogspot.com/2006/11/does-language-lab-improve-learning.html

## 2. Virtual Reality

# a. Definition of Virtual Reality.

According to Rodriguez, Virtual Reality is "Technology that allows us to create environments where we can interact with any object in real time, and that has been widely used for training and learning process". 22 Virtual reality is usually used by the most people for a different kind of movie going experience at theatre to navigate virtually new places through smartphone application. Although most experience of VR in entertainment form, there are other uses for it including culture heritage, education, military, art and industrial section<sup>23</sup>. Moreover, According to Clark (2006) the Virtual reality can be used to make the learning more interesting and fun with the purpose of improving the motivation and attention, decreasing costs when using the objective and the real environment no matter how expensive the simulation is. It also makes possible that situations that were impossible to explore in the real world can be done<sup>24</sup>.

By the passing of the time, the components of VR device become simpler than when it first created. The user only needs smartphone such as Android or Iphone and the VR glasses. The VR glasses also easy to get through the popular online shop such as Lazada or Tokopedia.

# b. Types of VR System and Hardware

1) Immersion Systems (Fully-immersive).

The immersion type of VR systems requires the user to wear a data glove and HMD that

<sup>22</sup> A. Rodriguez, B. Rey, M. Clemente, M. Wrzesien, and M. Alcañiz, "Assessing brain activations associated with emotional regulation during VR mood induction procedures," Expert Systems with Applications, vol. 42, no. 3, pp. 1699–1709, 2015.

<sup>23</sup> Loureiro, A., & Bettencort, T. (2014). The use of virtual environment as an extended classroom—A case study with adult learners in tertiary education. *Procedia Technology*, 13.97-106.

<sup>24</sup> Clark, Donald. 2006. Motivation in e-learning. Disponivel em: <a href="http://www.epic.co.uk">http://www.epic.co.uk</a> Marco. 2012.

tracks the user's head movements that then changes the view.25 This type of VR system encases the audio and visual perception of the user in the virtual world and cuts out all outside information so that the experience is fully immersive. This type of technology is expensive and has some disadvantages, including less determining images, burden and environmental problems concerning simulators.<sup>26</sup> The user using full immersion of VR technology has the ability of feeling of being part of the virtual environment. An example of using this type of VR is in a virtual walk-through of buildings as one application of full immersion.<sup>27</sup>

Non-Immersive system

The non-immersive system is often called desktop virtual reality (without any input devices) and based on the displayed screens as it is a window to the virtual world without additional devices such as HMD, and it is sometimes called Window on World (WoW) systems.<sup>28</sup> The desktop VR system is the least types of immersion and lowest cost of the VR systems. Non-immersive type of VR is the least sophisticated components and mostly used in education.<sup>29</sup> Another form of desktop VR system is a virtual world. It used in education to support the learning and enhance the user to understand and observe the information. Pull together of the virtual world provides systems

<sup>&</sup>lt;sup>25</sup>C. Cox, "The use of computer graphics and VR for visual impact assessments," 2003.

<sup>&</sup>lt;sup>26</sup> L. Daghestani, "The Design, Implementation and Evaluation of a Desktop VR for Teaching Numeracy Concepts via Virtual Manipulatives," 2013.

<sup>&</sup>lt;sup>27</sup> O. Bamodu and X. M. Ye, "VR and VR System Components," Advanced Materials Research, vol. 765, pp. 1169-1172, 2013.

<sup>&</sup>lt;sup>28</sup> S. Mandal, "Brief Introduction of VR & its Challenges," 2013.

<sup>&</sup>lt;sup>29</sup> O. Bamodu and X. M. Ye, "VR and VR System Components," Advanced Materials Research, vol. 765, pp. 1169-1172, 2013.

interactions among humans through many avatars.<sup>30</sup>

## 3) Semi-Immersive system

The third type of VR systems also called hybrid systems. The semi-immersive is a development desktop VR and include additional devices such as Data Gloves. It keeps the simplicity of the desktop VR system, but with a high level of immersion and using physical models. The semi-immersive system consists of VR and real world attributes by embodying objects of computer graphic into the scene of the reality. The input to this type of system is entered and controlled by the users such as a mouse, keyboard, interaction styles, glasses, and joystick. It allows the user to interact by using the hands and sometimes wear glasses or Data Gloves.

The following table 2.1 displayed the main differences among the three types of immersion VR system:

Table 2.1.

	Fully- Immersive	Semi- Immersive	Non- Immersive
Resolution	High	High	Medium – Low
Sense of Immersion	Low – Non	Medium – High	Low
Interaction	Low	Medium	High
Price	Lower Cost	Relatively - Expensive	Very Expensive

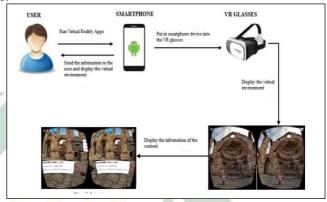
<sup>&</sup>lt;sup>30</sup> L. Daghestani, "The Design, Implementation and Evaluation of a Desktop VR for Teaching Numeracy Concepts via Virtual Manipulatives," 2013.

<sup>&</sup>lt;sup>31</sup> O. Bamodu and X. M. Ye, "VR and VR System Components," Advanced Materials Research, vol. 765, pp. 1169–1172, 2013.

<sup>&</sup>lt;sup>32</sup> L. Daghestani, "The Design, Implementation and Evaluation of a Desktop VR for Teaching Numeracy Concepts via Virtual Manipulatives," 2013.

## c. Basic Operation of Virtual Reality

The basic operation of the virtual reality as media in learning descriptive text described on the picture 2.1.



Picture 2.1 Basic operation of Virtual Reality

The first stage from the use of virtual reality is the user run virtual reality video player on smartphone. If the app has not installed, the user can download from the Appstore. Then put in the smartphone into the VR glasses. The user can see the virtual environment and interacting with the object which displayed on the VR glasses. The information or knowledge sent to the user can be form of text and sound such as general information about historical place by the narration or the text.

# d. The Advantages of Virtual Reality

The advantages of using Virtual reality to teach educational objectives are similar in many ways to the advantages of using computer or interactive simulation, particularly a three-dimensional computer simulation. Computer-based simulations have been used for many years in computer-assisted instruction (CAI)<sup>33</sup>.

According to Pantelidis (1995) there are some advantages of using Virtual reality as a media in the teaching-learning process<sup>34</sup>:

- Virtual reality provides new forms and methods of visualization, drawing on the strengths of visual representation.
- b) Virtual reality can motivate students.
- c) Virtual reality allows the learner to proceed through an experience during a broad time period not fixed by a regular class schedule, at their own pace.

# e. The Disadvantages of Virtual Reality

The disadvantages of using virtual reality are primarily related to cost, time necessary for learning how to use hardware and software, possible health and safety effects, and dealing with possible reluctance to use an integrate new technology into a course or curriculum<sup>35</sup>. So, before deciding to use VR as media in learning, the teacher should consider what kind of VR which appropriate with the class.

# f. Virtual Reality Concepts in Computer-Assisted Language Learning

Many researchers have come to see VR not so much in the context of new tools and programs but in terms of a new concept, a paradigm shift in human computer interfaces, and a fundamentally different way of using computers. According to Veronica Pantelidis (1993), "VR has been defined as a highly interactive, computer-based, multimedia environment

<sup>34</sup> Pantelidis, V. S. (1995). Reasons to use virtual reality in education. *VR in the school, I*(1), 9. Retrieved from http://vr.coe.ecu.edu/vrits/1-1pante.htm

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<sup>&</sup>lt;sup>33</sup> Pantelidis, V. S. Reason to use virtual reality in education and training course and a model to determine when to use virtual reality. Journal science and technology education, p. 62.

<sup>&</sup>lt;sup>35</sup> Pantelidis, V. S. Reason to use virtual reality in education and training course and a model to determine when to use virtual reality. Journal science and technology education, p. 64.

in which the user becomes a participant with the computer in a 'virtually real ''world''. 36

Klaus Schwienhorst formulated the concepts for implementing virtual reality in computer-assisted language learning through exploring three different approaches: an individual-cognitive view by Kelly, emphasizing learner awareness; a social-interactive view by Vygotsky, emphasizing interaction and peer collaboration; and an experiential and experimental view by Bruner. The concept is formulated as follows: (a). Supporting reflection: Awareness of self, others, and language resources. (b). supporting interaction: Collaborating with native speakers, peers, and virtual agents/bots. (c). Supporting interactivity and experimentation: Self-access, selfmanipulation regulation, and in virtual environments.37

a. Supporting reflection: Awareness of self, others, and language resources.

Reflection is essential to deep learning and problem solving. From a socio-cultural perspective, reflection is developed through social interaction and semiotic mediation.<sup>38</sup> To reflect, students need to be given opportunities to review their own and other's mental process and to use techniques such as writing or verbal report to organize and revise though.<sup>39</sup> In the concept implementing VR in CALL, it has been noted that VR can record conversations in so-called

<sup>37</sup> Klaus Schwienhorst. *Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning.* SIMULATION & GAMMING, Vol. 33 No. 2, June 2002. P 196-209.

<sup>&</sup>lt;sup>36</sup> Pantelidis, V. (1993, April). Virtual reality in the classroom. *Educational Technology, 33,* 23-27.

<sup>&</sup>lt;sup>38</sup> Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. Jogh-Steiner, S. Scribner, & E. Souberma, Eds. & Trans.). Cambridge, MA: Harvard University.

<sup>&</sup>lt;sup>39</sup> Cobb, P., Boufi, A., McClain, K., & Whitenack, J. (1997). Reflective discourse and collective reflection. *Journal for Research in Mathematics Education*, 28(3), 258–277.

logs and the user's activities log as their role in the virtual environment which can form valuable material for reflective offline work. These records cannot only serve to provide learners with, by definition, personally meaningful authentic material in the target language but allow them to critically examine their own performance, or rather, the performance of their virtual selves.

Supporting interaction: Collaborating with native speakers, peers, and virtual agents/bots.

The most important benefit of VR is interaction. Any telecommunication tool needs to support the multitude of communication scenarios in the language classroom and target community. This language involves provision of asynchronous and synchronous communication tools in the same environment but also the dynamics of group formation that usually occur in classroom interaction. Thus, the teacher may work with a student, two students may work together, a group of four students work together, and so forth, and this is a constantly changing process. VR in general and text-based VR in particular can contribute toward language and linguistic awareness, while providing a more stress-reduced and fair learning environment for collaboration and interaction between peers. This also means that learners who have not developed a high degree of learner autonomy can benefit more from a VR environment where they are encouraged to communicate, collaborate, and participate in the learning process, where they are encouraged and sometimes even forced to take control and assume responsibility of their own learning. Moreover, VR also supports the implementation of natural language processing (NLP) tools. Kaplan successfully implemented a bot using NLP for the limited register of military language. Although they cannot provide the flexible and individualized feedback function of peers or other native speakers, they can be useful for limited functions such as vocabulary training or message delivery, or as cognitive tools for learners to experiment with language.

 Supporting interactivity and experimentation: Self-access, self-regulation, and manipulation in virtual environments.

In a context of self-access and selfregulation, VR systems allow learners to actively participate in the collection and organization of their own learning resources and tools. For example, learners can explore their own rooms and experiment with a variety of objects such as bots. This may be supported by a multimodal interface that allows users to access the virtual world by text commands, hypertext links, or through 3-D objects. Trueman (1996), using OuickTime technology, showed how the manipulation of objects in real time leads to learning. Turner (1995), using text-based VR, used virtual treasure hunts and similar activities. In their experience, the 3-D aspect enhances attention and awareness of language resources, which in turn enhances classroom work.

## 3. Response

a. Definition of Response

There are 2 kind of response according to Skinner, they are (1) Response respondents or flexible, is the response generated by stimuli (certain stimuli). Such stimuli are called elitist stimulation because they produce a relatively fixed response, (2) the response of the operand or the response involved is the response

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<sup>&</sup>lt;sup>40</sup> Kaplan, J. D.,&Holland, V. M. (1995). Application of learning principles to the design of a second language tutor. In V. M. Holland, J. D. Kaplan, & M. R. Sams (Eds.), *Intelligent language tutors* (pp. 273-287). Hillsdale, NJ: Lawrence Erlbaum.

that arises and is then developed followed by certain stimuli or stimulants. This stimulus is called strengthening the stimulus or strengthening because it reinforces the response.<sup>41</sup>

In another definition, John H. Harvey states that the response is "response as one the main functions of the soul can be interpreted as a memory image of observation, has stopped, just impression."42 Meanwhile, according to Rachmat, the response is the activity of organizing it, not just a positive movement, of all types of activity caused by stimulants, can also be interpreted as a result or impression gained (left behind) from observation. As for this is what is meant by the response is the experience of the subject, event or relationship obtained by summing up information and interpreting the message. 43 The term response in communication is a communication activity that is expected to have a result or effect. Communication activities communication between two or more people that give effect in the form of a response from communication to the message launched by the communicator.

In conclusion, response is formed from the process of stimulation or giving an action or causes that result in reaction and result from the stimulus process. Response will arise from message reception after a series of communications.

# b. The Factor of Response

A response can occur if the causal factor is met. In the initial process, the individual not only responds to the stimulus caused by the circumstances around him. Not all stimuli get an individual response, because individuals do the appropriate stimulus and withdraw.

<sup>43</sup> Jalaludin Rachmat *Journal of rsponse* 

<sup>&</sup>lt;sup>41</sup> Skinner theory in Notoadmodjo, Soekidjo. Pengembangan Sumber Daya Manusia, Jakarta: Rineka Cipta, 2003.

<sup>&</sup>lt;sup>42</sup> John H. Harvey in Abu Ahmadi, Psikologi Sosial, (Jakarta, PT. Rineka Cipta. 2009) p.150

Hence then the individual besides dependent on the stimulus also depends on each country itself.

Factors that will get individual stimuli are two factors:

- Internal Factors are the factors that exist in the individual human being. It consists of two elements: spiritual and physical. Then someone who responds to something from the stimulus still affects one of the elements alone and they will stand the result of a different response of intensity in the individual that respond or will different the response between the person and the other person. Physical or physiological elements include existence, integrity, and workings of sensory devices. Nerves and specific part of the brain. Spiritual and psychological elements of existence, feeling, reason, fantasy, mental, mind, and motivation.
- External factors are factors that exist in the environment. It's the intensity factor and the type of stimulant or people call it by the stimulus factor. According to Bimo Walgito in his book, states that the psychic factors associated with the object because of the stimulus, and the stimulus will be about the sensing device.<sup>44</sup>

# **Student Response**

Many of the studies into CALL focus on discovering what technologies and resources are available and on how students are using the technological tools at their disposal.<sup>45</sup> In other words, students are being asked to evaluate the ways in which they are using technologies to support their learning. Other studies have searched for answers in areas of motivation and CALL, difficulties or ease of use. and perceived usefulness, to name a few. Perceived ease to use marks a person belief toward the instant use of

<sup>44</sup> Bimo Walgito, *Pengantar Psikologi Umum* (Yogyakarta: UGM, 1996). P.55

<sup>&</sup>lt;sup>45</sup> Conole, G. (2008). Listening to the learner's voice: The ever changing landscape of technology use for language students. ReCALL 20(2), 124-140.

particular technology and shows an individual intrinsic motivation to use technology. Then, perceived usefulness is regarded as a sign whether a person belief that technology can improve their performance and shows an individual extrinsic motivation to use the technology. 46 Based on TAM model, it is believed that technology can influence the user's attitude toward how they will use the technology.47

Furthermore, the learner autonomy with CALL technologies is important because the whole idea behind using technology in language study is tied to the notion that students do not have to rely on a teacher for all their language study needs. If students are motivated to learn on their own via computer, they will feel empowered by their own ability to use their knowledge and skills to enhance their own learning. In other words, they are able to take control of their language learning. 48

## Writing

# Definition of Writing

Writing is the one of the most important skill in language learning. Writing means composing the idea into well-organized sentence or paragraph so the reader can get the meaning easily. Writing, according to Bryne is considered as a means of communication between the writer and reader in non-physical interaction. 49

<sup>&</sup>lt;sup>46</sup> Mi Song, E-learning Investigating Students' Acceptance of Online Learning in Hospitality Program, (Ames: Iowa State University, 2010)

<sup>&</sup>lt;sup>47</sup> Kibelloh, M., & Bao, Y, Perception of International Female Students Toward E-Learning in Resolving High Education and Family Role Strain, Journal of Educational Computing Research, 50 (4), 2014

<sup>&</sup>lt;sup>48</sup> Collentine, J. (2000). Insights into the construction of grammatical knowledge provided by user-behavior tracking technologies. Language Learning & Technology, 3(2), 44-57. Retrieved July 12, 2012, from http://llt.msu.edu/vol3num2/collentine/index.html <sup>49</sup> Donn Bryne, *Teaching Writing Skill*. (London: Longman Group Ltd, 1991), Page.1

## b. Element of Writing

Writer must be aware about the writing situation before they start to write something. According to Hughey, there are three important elements of writing, there are <sup>50</sup>:

# 1) The Message/Subject

The subject is about which is writer will write a message of the information that the writer wants the readers know without a message, the writer will not get the sense of his writing. In other word, writing is about how the writer delivers a massage.

# 2) The Writing Purpose

In this process, the writer determines whether the writing is aimed for entertaining, informing or describing.

# 3) The Reader

The reader is the one who will read the writing. In this case, the writer has to consider what the reader need to know.<sup>51</sup>

# c. Purpose of Writing

In the writing process, the writer must know about what he/she want to convey. According to Cox, writing has some purposes. The purposes of writing requires<sup>52</sup>: (1) expressing ideas (2) providing information (3) persuading the reader (4) creating literary work.

# 5. Descriptive Text

# a. Definition of Descriptive Text

Descriptive is kind of writing which describe the characteristic about an object such as human or animal. While, Oshima and Hogue stated that descriptive overture to the feels, so it describes how

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<sup>&</sup>lt;sup>50</sup> Hughey, Jane. *Teaching ESL Composition Principle and Techniques*. (Massachussetts: Newbury House Publisher inc). pp 39

<sup>&</sup>lt;sup>51</sup> Hughey, Jane. *Teaching ESL Composition Principle and Techniques*. (Massachussetts: Newbury House Publisher inc). pp 41

<sup>&</sup>lt;sup>52</sup> Martha Heasley Cox, Writing From Proces Purpose (Chicago: Science Research Asociates, Inc. 1962), P. 23.

something feels by the human senses.<sup>53</sup> Moreover, in writing descriptive text, the writer should be able to interpret and imaging the thing which he/she wants to describe clearly.

# b. Purpose of Descriptive Text

The aim of descriptive text is to give brief explanation about things, place, or people through some detailed paragraph. According to White, there are some purposes of descriptive text:<sup>54</sup>

- 1) To inform the reader about how the object looks like.
- 2) To interpret the characteristic of a subject.
- 3) To make the reader interested to the object being described.
- 4) To give a demo about something

# c. The Generic Structure of Descriptive Text.

The structure of descriptive text according to Gerot and Wignel are formulated as bellow: 55

1) Identification is general illustration of the object being described.

Borobudur is Hindu – Budhist temple. It was built in the ninth century under Sailendra dynasty of ancient Mataram kingdom. Borobudur is located in Magelang, Central Java. Indonesia.

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<sup>&</sup>lt;sup>53</sup> Oshima, A. & Hogue, A.. *Introduction to Academic Writing* (2nd Edition). (New York: Addison Wesley Longman 1997), Inc.

<sup>&</sup>lt;sup>54</sup> Fred. D White, *The Writer's Art*,.....p. 61-62

 $<sup>^{55}</sup>$  Gerot and Wignell. E – Journal of English Language Teaching Society (IELTS) Vol. 2 No 1 2014 – ISSN 2331 - 1841

Description is detailed information about the object which is described.

Borobudur is well-known all over the world. Its construction is influenced by the Gupta architecture of India. The temple is constructed on a hill 46 m high and consist of eight step like stone terrace. The first five terrace are square and surrounded by walls adorned with Budist sculpture in bas-relief.

## **B.** Previous Study

Many research study about the use of Virtual reality in teaching-learning process in different focus. Virtual reality considered as multimedia which contain rich of visual and audio content that can make the student interesting to use and interact with the object in the virtual environment. Many people in the education area do not know how the use of virtual reality as media and how to develop it to create the best learning experience for the learner.

In this study, the researcher wants to examine the use of virtual reality in learning process especially learning descriptive text. The researcher also wants to obtain the student's response about their learning experience in using Virtual reality as a media at SMA AL-ISLAM Krian. Furthermore many researches discuss about the use of Virtual reality in different object of learning. So it will different with other study about the use of Virtual reality in learning descriptive text.

In addition, the researcher considered some previous research related with this study, the researches are:

The first study entitled "Virtual reality game classroom implementation: Teacher perspective and student learning outcome" by Mohammed Mubarak Alfadil discuss about the influence of the virtual reality game (VRG) House of Languages on ESL vocabulary acquisition of intermediate school student and establish how VR technology aids in improving the ESL vocabulary skill. The researcher takes 64 students as the participants and divides into experimental group

and control group. Each group contains 32 students and the teacher from local suburban intermediate school in the eastern region of Saudi Arabia. The finding indicated that students that using the VR game *House of Language* had greater achievement in learning vocabulary than those using traditional method in learning vocabulary.

Second study by Jeremy N. Bailenson and Nick Yee entitled "The use of immersive virtual reality in the learning sciences: Digital transformations of teachers, students, and social context". They focused on the use of Virtual environment to transform social interaction via behavior and context, with the goal of improving learning in digital environment. The result shows that Virtual environments will have a unique ability to alter the social dynamics of learning environments via transformed social interaction.

The third study entitled "Use of Virtual-Reality in Teaching and Learning Molecular Biology" by Sandra Tan and Rusell Waugh. The study focus on the use of Virtual reality as simulation-based learning environment in learning molecular biology. The researchers use the experimental study and intervention described leverage on novel computer-based virtual-reality technologies to help students understand the three-dimensional structures and the molecular interactions between them that enable function. Results indicate significant increases in Molecular Biology achievement in male students. Focus group interviews reveal that, prior to this intervention, students relied heavily on memorization, and the visualization exercises helped to clarify understanding while increasing interest and engagement.

### CHAPTER III

### RESEARCH METHODOLOGY

This chapter contains about research methodology which is used by the researcher. It includes (1) research approach and design (2) setting of study (3) participant (4) data and source of data (5) data collection technique (6) data collection instrument (7) data analysis technique.

## A. Research Approach and Design

When the researcher conduct qualitative research, the researcher *collects data* to learn from the participants in the study and develop forms, called *protocols*, for recording data as the study proceeds. These forms pose general questions so that the participants can provide answers to the questions. Often questions on these forms will change and emerge during data collection. <sup>56</sup> In this research, the researcher wants to get information about the use of virtual reality in the learning process of descriptive text and the student's response about the use Virtual reality as media in learning at SMA AL-ISLAM Krian.

This study is using descriptive qualitative approach. The researcher aims to describe and explore the use of Virtual reality as media in learning descriptive text. According to Creswell, a qualitative study seeks to build interpretive analysis based on specific data, within a flexible structure. This study using a qualitative analysis will emphasize on methods of collecting, analyzing data, and describing the results of the analysis.<sup>57</sup> The researcher takes the data from the student's learning process of descriptive text in the class to resolve the first research problem. Then the researcher will use questionnaire technique to obtain the student's response about the experience in using Virtual reality as learning media to obtain the answer of second research problem.

### **B.** Setting of Study

The study will be held at SMA AL-ISLAM Krian. The subject of the study is tenth grade students of *IPS* 1 class at SMA AL-

 $^{57}$  Ary, Donald. (2010) Introduction to Research in Education (USA:Wadsworth), p.452.

<sup>&</sup>lt;sup>56</sup> John W. Creswell, *Educational Research; Planning, Conducting, and Evaluating Quantitative and Qualitative Research.* (New Jersey: Pearson Education, 2008), p.17.

ISLAM Krian. The researcher take one class consists of 33 students. The researcher will do the observation in the class about the learning process. Then the researcher will give the questionnaire to the students to obtain student's response.

## C. Participant

The researcher will take the data from the tenth grade of SMA AL-ISLAM Krian. The tenth grade students of *IPS* 1 class will be given the questionnaire after them using Virtual reality as media in learning descriptive text in the class. The class consists of 33 students.

### D. Data and Source of Data

The researcher will take the data by doing observation in the tenth grade *IPS* 1 class at SMA AL-ISLAM Krian to answer the first research problem. While the researcher will distributes the questionnaire to obtaining the student's response in using Virtual reality as media to learn descriptive text to answer the second research problem.

### E. Data Collection Method

Research instrument is needed to help the researcher in collecting the data. In this study, the researcher obtains the research data by observe and distribute quistionaire to the students at SMA AL-ISLAM Krian. To be specific, the researcher makes the table below to explain the process of collecting the data:

RQ	Subject	Instrument
	7/	
RQ 1	English teacher	Observation Checklist
	and tenth grade	(See appendix 1)
	students of IPS 1	
	class at SMA AL-	
	ISLAM Krian.	
RQ 2	Tenth grade	Questionnaire
	students of IPS 1	(See appendix 2)
	class at SMA AL-	
	ISLAM Krian.	

**Table 3.1. Data Collection Method** 

- 1. The researcher will do observation to know the process of using Virtual reality as media in learning descriptive text in the tenth grade class at SMA AL-ISLAM Krian.
- 2. To obtain the data about second research problem, the researcher will distribute quistionaire to tenth grade students at SMA AL-ISLAM Krian. The result of the questionnaire will be used to know the student's response in using Virtual reality as media in learning descriptive text

#### F. Data Collection Instrument

To answer the research questions, the researcher uses some instruments. The instruments that the researcher uses are:

#### 1. Observation

According to Creswell, observation is the process of gathering open-ended, firsthand information by observing people and places at a research site. 58 The researcher will observe the teaching-learning process in the classroom. By doing the observation, the researcher wants to know the process of using virtual reality as media in learning descriptive text. To assist in observation in this study, the researcher used an observation guide (see appendix 1).

### 2. Questionnaire

The best way to design a questionnaire according to Maria Teresa is the researcher must already determine variable and indicator of his/her interest then the researcher can continue to arrange the quetionaire instrument that will be given to the correspondent.<sup>59</sup> In this research, the researcher will distribute the questionnaire sheets after the class over. In this study a questionnaire to obtain the student's response toward the use of virtual reality used by the researcher (see appendix 2).

## G. Data Analysis Technique

The researcher analyzes the data from observation and questionnaire result by using descriptive quantitative method. Then the researcher classified the data into quantitative data. It will help

 John W. Creswell, Educational Research; Planning, Conducting, and Evaluating Quantitative and Qualitative Research. (New Jersey: Pearson Education, 2008), p.213
 Maria Teresa Siniscalco and Nadia Auriat, "Quantitative research methods in

educational planning", UNESCO. p.22

the researcher to conclude the answer of research question. The data analysis procedure is defined as follow:

### 1. Observation

To analyze the observation data, the researcher matches the result from observation with the theories which provided in the review related literature. The researcher described the implementations of using Virtual reality in learning descriptive text. The researcher observes the implementation of using Virtual reality in the classroom by using observation checklist based on Klaus Schwienhorst's concept about how to implementing Virtual reality in CALL and make a field note. The description explained the aspects and activities then compare it with the concept. The researcher also concludes the activity which is matched with the concept.

### 2. Questionnaire

After get the data from questionnaire, the researcher did some steps to analyze the data:

- a. The researcher calculates and count the students' answer through the total of each item will be multiplied with a hundred percent then the result will be divided with the number of the students.
- b. To measure attitudes, opinions, responses of a person or group of people about a problem, it is use Likert scale. <sup>60</sup> It was explained as follows: Students' responses questionnaire was arranged based on the Likert scale. It was assessed with the following scale: <sup>61</sup>
  - 1) Sangat tidak setuju = 1
  - 2) Tidak setuju = 2
  - 3) Ragu = 3
  - 4) Setuju = 4
  - 5) Sangat setuju = 5
- c. The score of students' response was calculated with every single question and was looked for the percentage by using formula as follow:

<sup>60</sup> Sugiyono, "METODE PENELITIAN ADMINISTRASI", (Cet. 5, Bandung, CV ALFABETA, 1998), p. 73

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<sup>&</sup>lt;sup>61</sup> Sugiyono, Statistika untuk Penelitian, (Bandung; Penerbit Alfabeta, 2010) p. 93-95

$$\% SRS = \frac{\Sigma SRS}{SRS \ Maksimum} \times 100\%$$

**Information:** 

 $\Sigma$ SRS: The total of students' response score

was gotten by calculating SRS (SA + SRS, A + SRS, U + SRS, + SRS, SD +

SRS)

**SRSMaximum:**  $\sum R$  x the best score choice

:  $\sum R \times 5$ 

d. The result can be measured by using Likert scale. Explain as follow:

Percentage	Criterion
81% - 100%	Sangat Setuju
61 <mark>% - 80</mark> %	Setuju
4 <mark>1%</mark> - 60%	Ragu
2 <mark>1%- 40%</mark>	Tidak Setuju
0% - 20%	Sangat Tidak Setuju

### **CHAPTER IV**

### FINDING AND DISCUSSION

## A. Research Findings

The research conducted by the researcher on October 1<sup>st</sup>, 2018 until October 3<sup>th</sup>, 2018. To answer the research problems in this research, the researcher used two instruments to analyzing the data. Based on the result of observations and giving questionnaire to the students that already did by the researcher in 10<sup>th</sup> grade of English class at SMA Al-Islam Krian about the use of virtual reality in learning descriptive text and then achieved the following research result:

# 1. The implementation of the use of virtual reality in learning descriptive text at SMA Al-Islam Krian

The researcher gathered the data related to the first research problem of the study which is how is the implementation of the use of virtual reality in learning descriptive text. The learning process throughout the use of Virtual Reality had been examined by the researcher according to what occurred in the classroom observation. There are three main stages done by the teacher in implementing virtual reality device as media in learning descriptive text, there are (1) lead in activities (2) while activities (3) closing activities. The researcher describes the stages as follows:

## a. Lead in Activity

In the beginning of the class, to avoid the technical problem the teacher does some activity for preparing the media and the students to start the lesson, the activities as bellow:

 The teacher gives information about the relevance of previous lesson. In order to relating the previous lesson about simple present tense, the teacher asks the students to concluding the previous lesson. The teacher said:

"Okay students, in the last meeting we have learned about simple present tense. Today, we will learn about descriptive text which is used that tense"

- In the last meeting, the teacher taught about simple present tense. The teacher wants the students know that simple present tense is the one of some language features of the descriptive text.
- 2) The teacher relates the lesson with the students' experience. To make the students understand about what material they will learn, the teacher relates the lesson with the student's experience. The teacher said:
  - "Do you have any pet? What is your pet? How its looks like? Today, we will describe the characteristics about things, animal or human."
- 3) The teacher explains the material reference, which is about descriptive text. The teacher explains the material about descriptive text to the students. The teacher said that:
  - "Descriptive text is....the purpose of descriptive text is....descriptive text usually use simple present tense."
- 4) The teacher prepares VR glasses on his desk.
  The teacher prepares some VR devices on his desk before start to use those devices. The teacher said:
  - "okay before we start to observe some objects, let me prepare the tool first"
- 5) The teacher divides the students into some group. The teacher divides the students in the class become some group. The teacher said:

  "now, I will divide you into some group to do a group work, and the member just same with the group we determined"

### b. While Activities

- In the while activity, the teacher begin to apply the virtual reality and start the students' observation activity.
- Teacher gives a picture on the projector about animal. The teacher shows a picture about animal and describes that in order to make the students

know how to make a descriptive text. the teacher said:

"Okay students, now look at the projector, what picture do you see? Yaa, that is an elephant."

2) The teacher read the text and explains the structure of the text and the language features. The teacher explains about the structure, function, characteristic about descriptive text. the teacher said:

"Now, let's read the description about the elephant together, and find out where is the identification and description part of the text."

3) The teacher invites the students to play guessing game. The teacher asks the group to choose one students for sit in front of the class. The teacher said:

"Let's play guessing game together, each group must choose one of their member to explain the clue about the object displayed in the virtual reality device."

- 4) The teacher gives the student VR headset and asks the student who is sitting in front of the class to tell the clue about the animal which displayed in the virtual environment. The teacher said: "Are you ready, now wear this glasses, then observe the animal in the virtual reality while you describe the clue of its characteristics."
- 5) The teacher asks the other students try to guess what animal in the virtual environment. The teacher said:

"For the other students, you can guess if you sure about animal which described."

6) The teacher distributes the VR headset and the instruction sheets to each group. The teacher said that:

"Now, each group will get one VR devices and instruction sheets, before do the group work, please read the instruction first."

- 7) The teacher asks the students use VR headset according to instruction from the instruction sheets and the virtual agent they see in the virtual environment. The teacher's instruction as bellow: "Beside you get the instruction sheets, you will find some avatar in form of the animation that will guide you to explore the virtual environment, follow its instruction."
- 8) The teacher asks the students to observe the object in the virtual reality then describe the result into good descriptive text. the teacher said: "While you observe the object in the virtual environment, don't forget to take a note and the end of observation you will see the important information about the object which you have been observed."

## c. Closing Activities

In the closing activity, the teacher wants to make sure that the students understand what they have learned and shows the next lesson material.

- 1) Students and teachers conclude the benefits and the learning outcomes about descriptive text. To make sure the students understand what they have learned, the teacher asks them to conclude the lesson together. The teacher said: "Okay after you observe the object, then you make the descriptive text about the object. Now,
  - make the descriptive text about the object. Now, can you conclude what is the purpose, how is the general structure of descriptive text?

    Students listen the follow-up plan about the next

lesson. The teacher informs about the next lesson

material. The teacher said:
"for next meeting, we are going to travel to the some historical place virtually. So, we will describe about historical places"

# 2. Student's response toward the use of virtual reality in learning descriptive text at SMA AL-ISLAM Krian

The researcher collected the data related to the second research question of the study which is the student's response toward the use of virtual reality in learning descriptive text. To obtain the student's response, the researcher gained the data from giving questionnaire to the students because it was spent much time to do interview one by one to all students. The questionnaire was distributed to 33 students of tenth grade of SMA AL-ISLAM Krian. There are 9 questions item in questionnaires with five options answer, they are Sangat setuju, Setuju, Ragu, Tidak setuju and Sangat tidak setuju. Therefore, the result of the questionnaire as follow:

Table 4.1
Response toward Virtual Reality is useful in English learning

No	Statement	% Responses of students					
	Statement		ST	RG	TS	STS	
1	Saya merasa telah mempelajari descriptive text karena saya menggunakan Virtual reality	85	15	0	0	0	
3	Saya berfikir bahwa sekolah saya harus menggunakan Virtual reality dalam proses pembelajaran.	73	24	3	0	0	
6	Virtual reality membantu saya belajar sesuatu yang perlu saya ketahui.	67	30	3	0	0	
8	Virtual reality membantu saya mengembangkan ide untuk membuat paragraph berbentuk deskriptif.	55	42	3	0	0	
9	Saya ingin menggunakan Virtual reality untuk belajar materi lainnya.	70	21	9	0	0	

Based on the table 4.1, the researcher obtained the student's response toward the usefulness of virtual reality in English learning, such as item 1: "I feel I learned descriptive text because I used virtual reality" 85% students in the classroom or 28 students are Strongly Agree. The rest 15% or 5 students choose Agree as their answer. While, there is no student or only 0% who choose doubt, disagree, and strongly disagree answer.

In the item 3: "I think my school should continue to use the virtual reality in the learning process" as much as 73% or 24 students choose the Strongly Agree as their answer. Meanwhile 24% or 8 students in the classroom

choose *Agree* answer option. Furthermore, 3% or 1 student *doubt* about the statement. For *Disagree* and *Strongly disagree* is 0% or there is no student who choose those answer.

In the item 6: "Virtual reality helped me learn thing I need to know" there are 67% or 22 students in the classroom choose Strongly Agree. Then 30% or 10 students choose Agree option. Meanwhile, 3% or 1 student still Doubt about the statement. For the Disagree and Strongly Disagree option have 0% or there is no participant who chooses this option.

In the item 8: "Virtual reality helped me to develop ideas in making the descriptive text" as much 55% or 18 students in the classroom choose Strongly Agree option. 42% or 14 students choose Agree option. Then 3% or 1 student still doubt about the statement. For Disagree and Strongly Disagree have 0% answered by the participants.

In the item 9: "I would like to use virtual reality to learn other content" has 70% or 23 students Strongly Agree with the statement. Then 21% or 7 students in the class choose Agree option. Meanwhile, 9% or 3 students still Doubt about the statement. For Disagree and Strongly Disagree have no participants or 0% chosen by the students.

Table 4.2
Response toward Virtual Reality is easy to use in English learning

No	Statement	% Responses of students					
110	Statement		ST	RG	TS	STS	
2	Saya rasa penyajian materi descriptive text menggunakan media Virtual reality sangat menarik.		18	0	0	0	
4	Saya nyaman menggunakan peralatan teknologi Virtual reality.	55	36	9	0	0	
5	Saya menyukai pengalaman belajar saya melalui Virtual reality.	70	27	3	0	0	
7	Virtual Reality Menantang saya dalam membuat teks berbentuk deskriptif.	64	36	0	0	0	

Based on the table 4.2, the researcher obtained the student's response toward the virtual reality is easy to use in

English learning, such as item 2: "I think the presentation of descriptive text using virtual reality media is very interesting" 82% or 27 students are Strongly Agree. Other 18% or 6 students in the class choose Agree. Same with previous item, there is no students who choose Doubt, Disagree and Strongly Disagree option.

In the item 4: "I enjoyed using the virtual reality technology equipment" 55% or 18 students in the classroom choose Strongly Agree. Then 36% or 12 students choose agree as their answer. There are 3 students or 9% students in the classroom who answer doubt option.

In the item 5: "I like learning through virtual reality experience" as much 70% or 23 students choose Strongly Agree option. Then, there are 9 students or 27% students in the class choose Agree option. Meanwhile, only 3% or 1 student who choose Doubt option. For Disagree and Strongly Disagree option get 0% from the participants.

In the item 7: "the virtual reality media challenged me in make the descriptive text" there are 64% or 21 students who choose Strongly agree option. Meanwhile, 36% or 12 students in the classroom choose Agree option. For other options have 0% percentage of participants.

Based on the result of the questionnaire, there were two responses toward the use of Virtual reality in learning descriptive text, they were usefull and easy to use. Perceived usefulness of Virtual reality were Virtual reality are students feel they learned descriptive text because they used virtual reality, students think their school should continue to use the virtual reality in the learning process, students believe Virtual reality helped them learn thing they need to know, Virtual reality helped students to develop ideas in making the descriptive text, and the students would like to use virtual reality to learn other content. Moreover, perceived ease of use Virtual reality were the presentation of descriptive text using virtual reality media is very interesting, students enjoyed using the virtual reality technology equipment, students like learning through virtual reality experience, and the virtual reality media challenged students in make the descriptive text.

### B. Research Discussion

In this discussion, the researcher will reviews those findings by reflecting on some theories related to each problem that are the implementation and students' response toward the use of Virtual Reality as media in learning descriptive text. Then, the discussion is classified based on the research question of the study.

# 1. The implementation of the use of virtual reality in learning descriptive text at SMA Al-Islam Krian

Based on findings, there are 9 aspects of implementing Virtual Reality in CALL used by the English teacher at tenth grade students of SMA AL-ISLAM Krian. There are some aspects which are applied and there are some aspects which are not applied. Therefore, the discussion of finding as follows:

## a. Supporting reflection

1) Awareness of self.

Based on the findings, the teacher did not provide or implement the activity in the classroom which is containing the *awareness of self*-aspect. According to Klaus Schwienhorst the awareness of self in the use of virtual reality is the activity where the user can control by themselves their virtual body to do experimentation in the virtual environment. Whereas, supporting reflection: awareness of self is the capability of virtual reality devices can displayed the reflection or activity log of the virtual body done by the user in the virtual environment. From those reflection the user is expected be able to examine and understanding their own performance in order to be better in the next activity.

In the use of VR device done by the teacher in the class, the teacher did not give the selfawareness reflection. The Vr's software used by the teacher cannot record the activity or action which is

<sup>&</sup>lt;sup>62</sup> Klaus Schwienhorst. *Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning.* SIMULATION & GAMMING, Vol. 33 No. 2, June 2002. P 201-202.

<sup>63</sup> Ibid.

done by the students in the virtual environment. The software is only able to display the virtual environment and object that will be taught by the teacher. In conclusion, the students can only see and explore virtual environment according to object determined by the teacher without be able to know their own performance in controlling their virtual body.

### 2) Awareness of other.

As well as *awareness of self*, according to Klaus Schwienhorst awareness of other is the student's capability of knowing their role in social context.<sup>64</sup> In the use of Virtual reality, there are several applications or software that can record every social interaction carried out by it user, for example is MOO (MUD, Object-Oriented). Whereas, the reflection awareness of other in the use of virtual reality means the capability of devices to record the user interaction with other user which can be redisplayed as the learning reflection or material.<sup>65</sup>

Based on the findings, the researcher found out that the teacher did not provide this aspect. Seen from the type of headset and software used by the teacher, become the reason why the teacher did not supporting or implementing this aspect. The technology used by the teacher cannot provide a medium for students to interact socially with other online user in a virtual environment.

Therefore, the way the teacher implementing virtual reality devices in the English learning is not suitable with the concept.

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<sup>&</sup>lt;sup>64</sup> Klaus Schwienhorst. *Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning.* SIMULATION & GAMMING, Vol. 33 No. 2, June 2002. P. 202.

<sup>65</sup> Ibid.

## 3) Awareness of language resources.

Based on the observations result, the teacher provides reflection aspect in the form of awareness of language resources implemented in the VR's software used by the teacher. In its use, this software provides reflection to students in text-based about linguistics elements they have learned. Take an example from the activities carried out by the teacher and students in the classroom, the teacher asks the students to observe the object to be studied and then take a note the important information displayed by the VR device at the end of the activity.

According to Klaus Schwienhorst one of the important function of VR is it can provide a reflection of learning about the use of word or linguistic elements which is displayed in the virtual environment. 66 Therefore, this aspect is very helpful both for the teacher and for students because it can provide authentic material for learners.

## b. Supporting Interaction

1) Interacting with native speaker.

According Clark and Marshall, VR needs to support the multitude of communication scenarios in the language classroom and target language community in order to give the mutual knowledge to which involve physical students copresence. linguistic copresence, or community membership of the interlocutor. 67 In the use of VR the teacher must considering to give or provide communication aspect between students and the other VR user from other place. Beside can give the authentic conversation scenario it also build intercultural knowledge between students and the interlocutor.

<sup>&</sup>lt;sup>66</sup> Klaus Schwienhorst. *Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning.* SIMULATION & GAMMING, Vol. 33 No. 2, June 2002. P. 202.

<sup>&</sup>lt;sup>67</sup> Clark, H. H., & Marshall, C. T. (1981). Definite reference and mutual knowledge. In A. K. Joshi, B. L. Webber, & I. A. Sag (Eds.), *Elements of discourse understanding* (pp. 10-63). Cambridge, UK: Cambridge University Press.

Based on classroom observation results, the researcher did not find this aspect implemented by the teacher. The teacher only emphasizes the communication between students in the classroom. Therefore, the way teacher implementing the VR is not suitable with the concepts.

## 2) Interacting with peers.

Based on the observation result, the teacher implemented this aspect in form of guessing game. The teacher asks the students to do role play game using VR headset. The game called guessing game. The teacher set some ruler to play this game. The winner is the group which can guess the most. The teacher said that the aim of this game is to build the interaction between students with the fun way in the classroom. As Klaus said the benefits of VR for the learning tool are VR can emphasize cooperation to learner develop linguistic autonomy, metalinguistic awareness, and provide a more stressreduced and egalitarian learning environment for collaboration and interaction between peers.<sup>68</sup>

Besides that, the teacher also gives the students group work. In the every meeting using VR, the teacher has organized the group, so the students did not confuse to choose their group member. This gives beneficial both for students and the teacher because by doing group work the time can manage effectively and the classroom atmosphere become enjoy and make the students more active.

3) Interacting with virtual agents/bots.

Virtual agents/Bots is an artificially intelligent agent which can deliver command in the computer software usually in form of avatar created by human. 69 Although they cannot provide the

<sup>69</sup> Biocca, F. (1997). The cyborg's dilemma: Progressive embodiment in virtual environments. *Journal of Computer-Mediated Communication*, *3*(2).

<sup>&</sup>lt;sup>68</sup> Klaus Schwienhorst. *Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning.* SIMULATION & GAMMING, Vol. 33 No. 2, June 2002. P. 203.

flexible and individualized feedback function of peers or other native speakers, they can be useful for limited functions such as vocabulary training or message delivery, or as cognitive tools for learners to experiment with language. According to finding, the researcher found that the teacher using Bot to guide the students collecting information in the virtual environment. The virtual agent/Bot can be found in the *Google Cardboard* application as a tour guide in exploring the virtual environment displayed in the VR headset.

## c. Supporting Interactivity and Experimentation

Self – Access.

According to Klaus in a context of Self – Access and Self – Regulation, VR System allow learners to actively participate in the collection and organization of their own learning resources and tools. To example, learners can create their own rooms and experiments with variety object such as bots. Based on observation result, the teacher allows students to operate and collect the VR headset and information in the virtual environment by themselves. So, it can be concluded that the teacher's way in implementing this aspect is suitable with the concepts of implementing VR as language learning tool to allow learners use the VR headset independently.

2) Self – Regulation.

Based on the findings result, the teacher implemented this stage by allow the students to collect information in the virtual environment displayed by VR device. The teacher only gives a few directions in the form of instruction for using VR device, then the students observe object and explore the virtual world independently. As Tunner said that

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<sup>&</sup>lt;sup>70</sup> Klaus Schwienhorst. *Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning.* SIMULATION & GAMMING, Vol. 33 No. 2, June 2002. P. 204.

<sup>71</sup> Ibid.

the 3-D aspect in VR can enhances attention and awareness of language resources, when in turn enhance classroom work.<sup>72</sup> Therefore, the teacher asks the students to work together but students must remain active in the collection of information process independently.

3) Manipulation in Virtual Environment.

According to Holmevik and Haynes, the recently VR software can provide a particularly easy-to-use interface for the creation of new objects. To Donaldson and Kötter also demonstrate how learner take control of the learning resources in VR by allows them to organize relevant multimedia material from the internet. Based on the observation result, the *Google Cardboard* app used by teacher can allow the user to choose multimedia material but the teacher did not utilize this feature. The teacher prefers to determine his own learning material in form of 3-D video to be distributed to students. Furthermore, the way teacher implementing the VR is not suitable with the concepts.

2. Student's response toward the use of virtual reality in learning descriptive text at SMA AL-ISLAM Krian

The previous research by Mubarak Alfadil obtained the responses of intermediate school students who use a virtual Reality vocabulary learning game as a learning method for developing vocabulary according to the usefulness of Virtual reality. <sup>75</sup> In this research, to answer the second research question, the researcher obtained the student's

<sup>73</sup> Holmevik, J. R., & Haynes, C. (2000). *High wired enCore home page*. Retrieved from http://lingua.utdallas.edu/hw/encore.html

<sup>74</sup> Donaldson, R. P.,&Kötter,M. (1999). Language learning in cyberspace: Teleporting the classroom into the target culture. *Calico*, *16*(4), 531-557.

<sup>&</sup>lt;sup>72</sup> Turner, J. (1995). A virtual treasure hunt: Exploring the three-dimensional aspect of MOOs. In M. Warschauer (Ed.), *Virtual connections: On-line activities and projects for networking language learners* (pp. 242-244). Honolulu: University of Hawai'i, Second LanguageTeaching and Curriculum Center.

<sup>&</sup>lt;sup>75</sup> Alfadil, Mohammed Mubarak, "Virtual Reality Game Classroom Implementation: Teacher Perspectives and Student Learning Outcomes" (2017). Dissertations. 408.

response toward the use of Virtual reality in learning descriptive text regarding with the ease of use and perceived usefulness.

Based on the questionnaire given to the 33 students, 28 students Strongly agree that they learned descriptive text because they used virtual reality, 27 (82%) students in the classroom Strongly agree that the presentation of descriptive text using virtual reality media is very interesting, 24 students (73%) Strongly agree that their school should continue to use the virtual reality in the learning process, 18 students (55%) students Strongly agree that they enjoyed using the virtual reality technology equipment, 23 (70%) of students in the class Strongly agree that they like their learning experience using virtual reality, 22 students (67%) strongly agree that Virtual reality help them learn thing they need to know and 21 (64%) students Strongly agree that the virtual reality media challenged them in make the descriptive text. Meanwhile, 18 (55%) students Strongly agree that Virtual reality helped them to develop ideas in making the descriptive text. Then, 23 (70%) students in the class *Strongly agree* that they want to use virtual reality to learn other content. It showed that Virtual Reality is perceived to be usefull to use in English learning. Perceived usefulness is an indicator of the extent to which a person believes that using a particular technology will enhance their performance and therefore represents and individual's extrinsic motivation to use technology.<sup>76</sup>

Therefore, based on the result above we can conclude that the students' response toward the use of Virtual reality is useful to use in English learning. This response makes the students interesting to use Virtual reality in English learning. It is suitable with the technology acceptance model (TAM) that is perceived usefulness which has a significant effect in behavioral intention to use a technology.

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<sup>&</sup>lt;sup>76</sup> Mi Song, E-learning Investigating Students' Acceptance of Online Learning in Hospitality Program, (Ames: Iowa State University, 2010

### CHAPTER V

### CONCLUSION AND SUGGESTION

This research discussess the area of the study that has been explain in the previous chapter. This chapter is divided into two part, those are conclusion and suggestion. In conclusion, the researcher will conclude the research based on the findings. Meanwhile, in Suggestion the researcher give suggestion for the English teacher, the next researcher and for the readers.

#### A. Conclusion

The result of the research are the implementations and students response toward the use of Virtual reality in learning descriptive text at SMA AL-ISLAM Krian. The conclusion of the research can be explained as follow:

# 1. The implementation of the use of virtual reality in learning descriptive text at SMA Al-Islam Krian

There are some activities done by the teacher in the classroom in using Virtual Reality as the media in learning descriptive text. The activities as follows:

## a. Preparation

- The teacher prepares Virtual Reality devices on his desk before starting the main activity.
- The teacher asks the students connecting their smartphone into Wi-Fi connection.
- The teacher asks the students to download VR application on the Appstore through their smartphone.

## b. Main Activity

- The teacher uses Virtual reality to play guessing game with the students.
- The teacher distributes the Virtual Reality glasses and manual paper about instruction to use Virtual reality to the students.
- The teacher gives a barcode contains about the material to the students.
- The teacher asks the students to observe the object which is displayed on the virtual reality.

 The teacher asks the students to write description based on the object that they have observed in the virtual reality.

## c. Closing Activity

- The teacher asks the students to watch the video on the Virtual reality App which displayed what they have learned in the current activity.
- The teacher asks the students to conclude the learning outcome which they got in the classroom meeting.

Based on the concept of implementing Virtual Reality by Klaus Schwienhorst, the ways which is used by the teacher in implementing VR in the classroom is not suitable with the concept. In the concept of implementing VR in CALL, there are 9 aspects must considered by the teacher in applying Virtual reality. The aspects are: (1) self-awareness reflection (2) awareness of other reflection (3) reflection of language resources (4) interacting with native speaker (5) interacting with peers (6) interacting with virtual agents/bots (7) self-access experimentation (8) self-regulation (9) manipulation in virtual environment.

The teacher only implement 5 from 9 aspects, that are awareness of language resources (closing activity first point), interacting with peers (main activity first point), interacting with bots (main activity third point), self-access (main activity second point), and self-regulation (main activity at fourth point).

# 2. Student's response toward the use of virtual reality in learning descriptive text at SMA AL-ISLAM Krian

Based on the questionnaire result there is 82% of students who *Strongly Agree* to consider the use of Virtual Reality as interesting in response to the point 2. On the other hand, there is 55% of students who *Strongly Agree* to assume that the use of Virtual Reality is comfortable in response to the point 4. In addition, 67% of students who strongly agree to think that Virtual Reality is useful in response to point 6. However, the findings also show that there is surprisingly 0% of students who hesitate that the use of Virtual Reality is interesting. Besides, the students who hesitate that the use of Virtual Reality is comfortable is estimate as 9%. Moreover, the

students who hesitate that the use of Virtual Reality is useful is 3%. In conclusion, the use of Virtual Reality is considered as an appropriate media to facilitate the classroom activity especially in learning descriptive text.

## B. Suggestion

Based on the result of the study the researcher recommends some suggestion in the following:

### 1. For the teacher

The result of this research indicates that in implementing Virtual reality, the teacher did not implement some important aspects such as awareness of self and awareness of other reflection, interacting with native speaker, and manipulation in the virtual environment. Those are due to the type of VR hardware and software used by the teacher. The researcher suggests the teacher to choose appropriate VR software such as "mondly vr". Even though it's paid software, it has more complete features than other software. Instead of buy new VR hardware which is more expensive than buy the software which is almost has all the aspects mentioned.

### For further researcher.

The finding of this study are expected to be used as consideration for the next researcher who want to conduct the study related to the use of Virtual reality in English learning. Regarding with the result of this study, the future researcher can conduct the resaerch about teacher' or students' challenge in using VR in English learning, the effect of using VR, and the next researcher can conduct the research to obtain teacher' perception toward the use of VR. Hopefully, the result of this research can be inspiration for the further researcher.

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