Journal of Language and Pragmatics Studies, **Volume 1 Issue 1 (Dec 2022), pp. 25-31**
e-issn xxxx-xxxx ©Yayasan Mitra Persada Nusantara
https://jurnal.ympn2.or.id/index.php/JLPS

Virtual reality used in English proficiency test based on apps

MR Bustam[1], RA Nurfadillah[2], FN Tsaniya[3], DN Dewi[4], TVL Gaol[5]

Departemen Sastra Inggris, Universitas Komputer Indonesia, Indonesia[1,3,4]
Departemen Sistem Informasi, Universitas Komputer Indonesia, Indonesia[2]
Departemen Perencanaan Wilayah dan Kota, Universitas Komputer Indonesia[5]
[4]Email: dndewiunikom@yahoo.com

Abstract – Today, the English Proficiency Test for both Tests of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) become something important to people, especially for students who want to continue studying in universities within countries that use English as the first language. TOEFL and IELTS are used by the universities to assess the students' English language skills and are also used as indicators of whether they can understand and follow the lessons well later. Therefore, many institutions compete to develop their media and program array to become people's choice for testing their TOEFL and IELTS skills. The purpose of applying this virtual reality technology in the English Proficiency Test to utilize the function of virtual reality technology in English Proficiency Test such as TOEFL and IELTS based on Apps. In this case, we used a descriptive method to describe the problem faced when this idea is implemented. This idea's results are expected to increase the attractiveness, confidence using the Apps and finally boost the test score. Besides, it is expected that this virtual reality used in English Proficiency Test based on Apps can give the best experience to people who can't take the test in an offline institution.

Keywords: English test; English skills; IELTS; TOEFLS

Journal of Language and Pragmatics Studies, **Volume 1 Issue 1 (Dec 2022), pp. 25-31**
e-issn xxxx-xxxx ©Yayasan Mitra Persada Nusantara
https://jurnal.ympn2.or.id/index.php/JLPS

I. INTRODUCTION

The Introduction should not exceed 15% of the total length of the entire article. Involving the learners in mastering vocabulary strategies is an increasingly important area of investigation in language teaching (Madini et al, 2017). Seleimani et al (2020) said in other words, the present study attempts to use Augmented Reality (AR) and Virtual Reality (VR) technologies to delve into another technology used in the interactive platform. VR may also include auditory stimulation through speakers or headphones. Users can interact with the virtual environment by using devices such as a keyboard, a mouse, or a wired glove (Mandal, 2013). VR can provide test-takers a 360° view in any direction, and test-takers can decide where to devote their attentional resources. By their own viewing choice, visual information can be efficiently used. Taking this potential to task, this study tests the validity of a VR listening test over and against audio and video listening tests' validities. Besides, it explores VR listening test-takers perceptions of the VR listening test with a questionnaire (Om, 2017).

Looking at the problems in the field shows that the traditional media used is still less effective and innovative for students' learning process. Therefore, the researcher intends to use virtual reality-based learning media for the learning process to provide new experiences for students and provide interesting activities where students can feel as if they are in the real world by using the Virtual Reality application. Therefore, with the Virtual Reality-based learning media, it is hoped that students' ability to imagine the shape of objects referred to by the teacher is expected to grow. And students do not get bored easily in participating in-class learning (Pratama et al, 2019)

Many stakeholders prioritize TOEIC over TOEFL. This is because TOEFL is more directed to the academic field as one requirement to continue studying to a higher level. TOEIC, on the contrary, is currently used as one of the requirements for someone to apply for a job (Kartaltape & Xu, 2006). International English Language Testing System (IELTS) has become one of the most popular and most used tests of the standard of English. IELTS scores are required for some students from particular countries to gain their visas to enter Australia, and Australian universities typically require students to have IELTS scores (or equivalent English proficiency standards) to gain entry (Feast, 2002). This study provides evidence that the listening, reading, speaking, and writing components of the TOEIC tests measure related but distinct English-language proficiencies (Liu & Costanzo, 2003).

Thus, this study's objective is to create an innovation in education, namely developing an actual technology-based learning media. It is implemented by utilizing virtual reality technology in English Proficiency Test, especially TOEFL and IELTS based on Apps. Besides, the method executed is in the form of making applications to build an online learning network. The learning method offered by utilizing this technology is in the form of an online study group system. This system will be more effective because it allows students to interact with each other in a wide network.

Journal of Language and Pragmatics Studies, **Volume 1 Issue 1 (Dec 2022), pp. 25-31**
e-issn xxxx-xxxx ©Yayasan Mitra Persada Nusantara
https://jurnal.ympn2.or.id/index.php/JLPS

II. METHOD

The greatest distinction is the full interactive and intuitive existence of virtual reality technologies, enabling people to enter a virtual environment. The five classical VR device modules, namely VR engineer, software and databases, input and output facilities, users, and functions, were introduced by Burdea et al (2003). A mining VR training framework should have the same five elements (Figure 1).

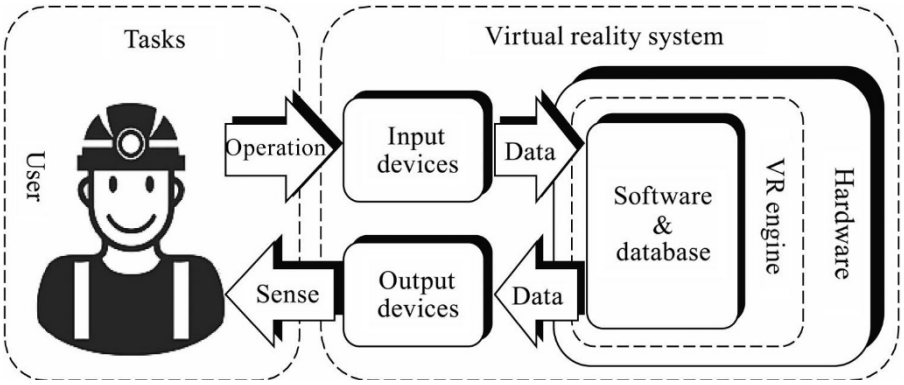


Figure 1 Input/Output and System training
Source: Virtual reality technology, 2003

In this study, the approach method is a standardized design approach equipped with the required tools and techniques in system development to provide the final result of the system established with a well-defined and consistent system. VR apps' development includes strategy, experiential design, asset development, development of VRs, testing, and implementation (Panyawong-Ngam et al, 2015) (Figure 2).

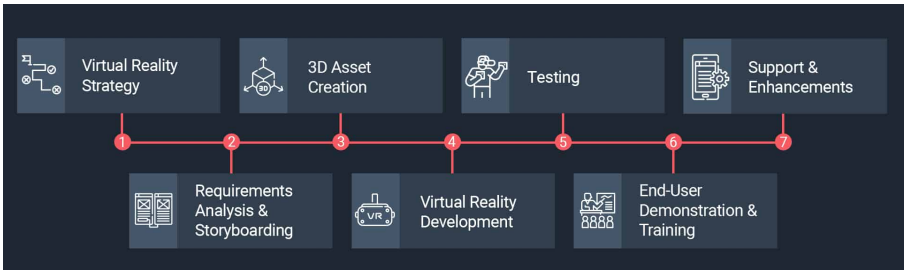


Figure 2 A Model Develop Virtual Reality Apps
Source: https://www.invonto.com/services/virtual-reality-app-development/

The Wireframing approach is used during device creation. In this procedure, the program that is being developed has nine development phases.

III. RESULTS AND DISCUSSION

Implementing a Virtual Reality (VR) system on Android or IOS devices can support education and increase the effectiveness of English proficiency tests. For example, virtual reality technology can be used in the English proficiency test program, especially for TOEFL and IELTS.

This virtual reality can provide the test-takers a wider view. By the free view that the test-takers chose, visual information can be effectively used. This case brings up the test-takers' new experiences to increase the motivation to have the highest score test. When the users have completed the test process, the system will immediately provide the test results. Users who have completed the test will receive the final total test score and certificate in about seven days. Users can choose either a printed certificate or an E-certificate that is valid because it is according to the standardization. Therefore, the users can download it directly on the Apps or choose to send the certificate to their home address.

System research is done to analyze a system or its parts to define its aims. The solution methodology strengthens the structure and guarantees all elements of the system's performance to serve their function. Registration with every service that connects your data is registered for that program (Figure 3).

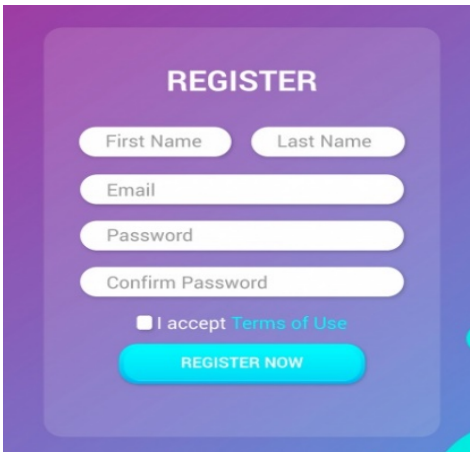
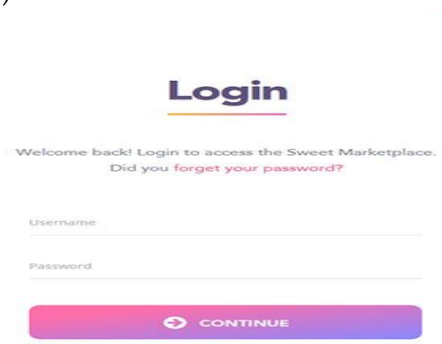


Figure 3 Register

The process for logging into an online service that contains your name/username and password (Figure 4).



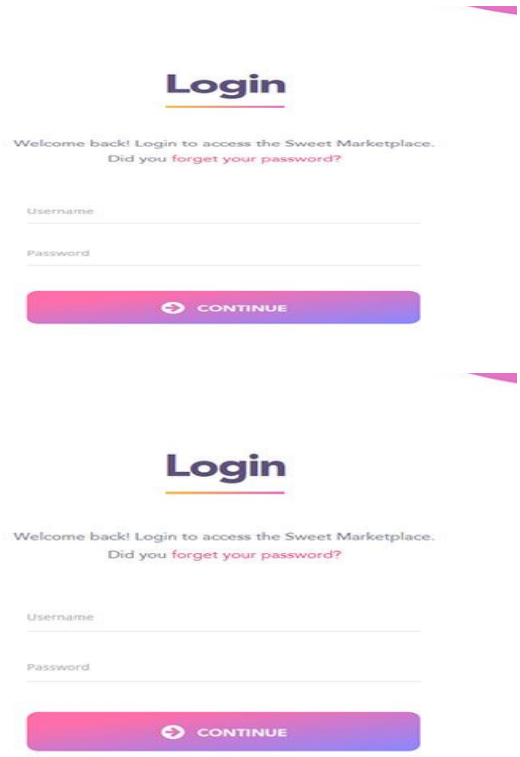


Figure 4 Login

A homepage is the main page or opening page in an application. This homepage's existence is very important because the index page is first displayed when the domain of the application (Figure 5).

Figure 5 Homepage

The use of Augmented Reality would not fully replace the position of the tutor. With this concept, the teacher as the teacher plays the role of administrator, mentor, and partner who manages the learning offered based on the planned

learning curriculum. The application-based learning model makes everyone can navigate and be structured at any time. The use of software for augmented reality in this tutorial is a simpler way to visualize the forms and sounds capable of being captured by the students' five senses. In the learning process, the five senses play a big part in making things possible to visualize.

VR technology is a modern way of viewing content and connectivity with humans and the computer. Many researchers, including this report, have indicated the reliability of the VR training systems, and better outcomes can be achieved with higher immersion. Therefore, immersion is only one of the virtual reality, and input/output technologies primarily decide the degree of immersion. The technical developments of VR have been in visual output devices such as Oculus Rift, HTC VIVE, Sony Playstation VR in recent years. Additional input devices such as the Virtuix Omni treadmill have also been developed (Rahmandani et al, 2018; Li et al, 2017; Bertram et al, 2015; Tichon et al, 2011, Atmaja et al, 2020).

IV. CONCLUSION

The use of virtual reality technology for English proficiency tests based on Apps is a learning innovation by combining multimedia. This is intended to give new fun learning experiences by providing a wider view of visual information in the artificial world. The fun environment learning experience brings the test-taker's motivation to get the test field's highest or maximal score. They might be happier and more satisfied to learn further about English when using the Apps, and as the final result, this level of happier can lead to another level of greater achievement.

REFERENCES

Atmaja, B, T., Akagi, M., & Elbarougy, R. (2020). Dimensional Speech Emotion Recognition from Acoustic and Text Features using Recurrent Neural Networks. *International Journal of Informatics, Information System and Computer Engineering. 1*(1), 95-126.

Bertram, J., Moskaliuk, J., & Cress, U. (2015). Virtual training: Making reality work?. *Computers in Human Behavior,* 43, 284-292.

Burdea, G. C., & Coiffet, P. (2003). *Virtual reality technology*. Canada: John Wiley & Sons.

Damayanti, L., & Gafur, A. (2020). English Proficiency of Students at Politeknik Negeri Balikpapan Based on TOEIC. *Teknosastik, 18*(1), 50-58.

Feast, V. (2002). The impact of IELTS scores on performance at university (Doctoral dissertation, Flinders University).

Kartaltepe, E. J., & Xu, S. (2006). Towards Blocking Outgoing Malicious Impostor Emails. *Proceedings of the 2006 International Symposium on a World of Wireless, Mobile and Multimedia Networks* (WoWMoM'06).

Li X, Lv Z, Zheng Z, Zhong C, Hijazi I H, & Cheng S. (2017). Assessment of lively street network based on geographic information system and space syntax. *Multimedia Tools and Applications 76*(17), 17801-17819

Liu, J., & Costanzo, K. (2013). The relationship among TOEIC listening, reading, speaking, and writing skills. The research foundation for the TOEIC tests: *A compendium of studies, 2*, 2-1.

Madini, A. A., & Alshaikhi, D. (2017). Virtual reality for teaching ESP vocabulary: A myth or a possibility. *International Journal of English Language Education*, *5*(2), 111-126.

Mandal, S. (2013). Brief introduction of virtual reality & its challenges. *International Journal of Scientific & Engineering Research, 4*(4), 304-309.

Om, K. (2017). Secure Email Gateway. *IEEE International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM),* 49-53.

Panyawong-Ngam, L., Tangthong, N., & Anunvrapong, P. (2015). A model to develop the English proficiency of engineering students at Rajamangala University of Technology Krungthep, Bangkok, Thailand. *Procedia-Social and Behavioral Sciences*, 192, 77-82.

Pratama, I. M. Y., Sindu, I. G. P., & Santyadiputra, G. S. (2019). Pengembangan Aplikasi Virtual Reality Mengenal Macam-Macam Benda Di Sekitar Rumah Dalam Bahasa Inggris (Studi Kasus: SD Cerdas Mandiri Denpasar). *KARMAPATI (Kumpulan Artikel Mahasiswa Pendidikan Teknik Informatika), 8*(3), 553.

Rahmandani, M., Nugroho, H. A., & Setiawan, N. A. (2018). Cardiac Sound Classification Using Mel-Frequency Cepstral Coefficients (MFCC) and Artificial Neural Network (ANN). *3rd International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE).*

Soleimani, H., Jalilifar, A., Rouhi, A., & Rahmanian, M. (2020). Augmented Reality and Virtual Reality in a collective scaffolding platform: Abstract genre structure in a Mobile-Assisted Language Learning Study. *Journal of Modern Research in English Language Studies*, *7*(3), 1-22.

Tichon, J., & Burgess-Limerick, R. (2011). A review of virtual reality as a medium for safety related training in mining. *Journal of Health & Safety Research & Practice, 3*(1), 33-40.

Wajdi, M., Sumartana, IM., & Hudiananingsih, NPD. (2018). Avoiding Plagiarism in Writing a Research Paper. Soshum: Jurnal Sosial Dan Humaniora, 8(1), 94-102. doi:10.31940/soshum.v8i1.769