

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

This chapter presents the results of the research in the description of the study of cyber experience-based learning with virtual reality device for foreign language education at VR Nihonggo JP/EN Language Exchange Community. To investigate the methods used by the community, the researcher used observation to the VR device and interview to the member of JP/EN Language Exchange at VR Nihonggo Community, and used documentation to learn the cyber experience-based learning with virtual reality device for foreign language education.

Based on the results of the observation, interview and documentation, the researcher found several relations with Experience-Based Learning, it will be explained.

1. The VR Compatibility for Experience based learning

To investigate Experience-Oriented learning develop into Cyber Experience-Oriented Learning through Virtual Reality

The finding of the study show that the researcher found at least 5 possibilities in VR for experience-based learning which are: *Role Play, Field Study, Group Projects, Simulation, Game Based Learning.*

1) Role Play

Based on the observation, it was known that VR able to support role-play. This was known through the vignettes or picture and document that was taken by the researcher when learners using their avatars to interact each other.

Picture 4.1.1. Role Play



Using 3D avatar for example mafia bird or other object those avatars used when interacting with players and on event like character showcase show where the player might show their avatar with extra feature of animation which pretty attractive.

In addition, role-player usually asking a permission when they want to role-play in front of public because the role-player might be confusing their viewers when performing the show.

However, viewers and performer or the role-players are suggested to asking politely if they need something.

2) Field Study

Based on the observation, it was known that VR able to support field study. This was also known through the vignettes or picture and document that was taken by the researcher when researcher trying to study the virtual environment.

Picture 4.2.1. Field Study



The user gets immersive experience by visiting digital reconstructions of ancient place for example machu picchu this picture was taken from Oculus Quest 2 by Exploring Nat Geo Wild.

As reminder from the researcher, the Virtual Environment on VR was great but it can't replace the real environment and that's why the researcher might suggest VR could be an alternative for field study if the students or participant not able to visit those places.

3) Group Projects

Based on the observation, it was known that VR able to support Group Projects. This was known through the vignettes or

picture and document that was taken by the researcher when the researcher participating the learning activity.

Picture 4.3.1. Group Project



Multiplayer and social feature VR user could make a group project for example VR Chat language Exchange for Japanese speaker and English speaker beside that there is Indonesian speaker and others for example Arabic, Chinese, Taiwanese, Korean and etc.

So, the participant or student will be able to communicate each other and exchanges information beside that there's a mentor for each group for helping the students who has struggle with language barriers or having trouble when communicating or interacting with the others student or participants.

4) Simulation

Based on the observation, it was known that VR able to support simulation. This was known through the vignettes or picture and document that was taken by the researcher when interacting with the virtual object this sensation can be delivered through VR controller.

Picture 4.4.1. Simulation



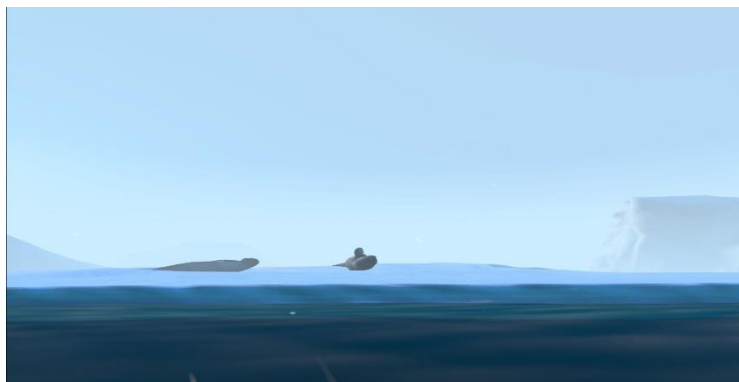
The user allowed to interact with cyber object on the surrounding virtual environment when contacting the sensation will be delivered to controller. Also, if learners or students have full body track the stimulation it will be delivered into whole body.

In simulation activity, the researchers are forced to complete the situation that has been given by an Artificial Intelligence or AI on VR and researcher should be able to complete the orders. If the researcher cannot complete the missions or task that has given. The researcher will get an option about the quest or start from the very beginning of simulation.

5) Game-Based Learning

Based on the observation, it was known that VR able to support Game Based Learning or gamification. This was known through the vignettes or pictures and document that was taken by the researcher when the learner playing while studying the language through VR Chat game.

Picture 4.5.1. Game-Based Learning



VR provide digital education game based for example National Geographic Wild or known as NAT Geo this video game tittle giving knowledge about animal or etc.

Game based learning or GBL on VR are variative the researcher might be able to experience the role-playing, simulation, field study and etc. on VR tools.

2. The VR Affection in Learning Foreign Language for Cyber Experience-Based Learning

- 1) Virtual Reality not the best tool for learning education but, it was great for distance learning experience.

Based on the result of interview in March, 1st 2022 with Mrs. Noi, according to her “she doesn’t agree about VR for the best tools for learning because each learners have their own method also tools for learning language”. Also, there are other statement from Mr. Regiru in December, 25th 2021 he explained that “*ekonomi semua siswa tidak rata*” which mean not all student might be able to afford that device for study. From the answer of interview both of them disagree because of students

might have better learning methods beside that not all students might afford VR device due to the high cost for this tool. However, the researcher might recommend the school or university become VR facilitator if the institute would to implementing VR when educating their students.

2) Virtual Reality might be able to implemented for English Foreign Learner

Based on the result of interview, Mr. Sashishi in February, 1st 2022 he said “強く印象に残る出来事があった時、人は強くそのことを記憶すると思う。VRでの体験は、強く脳に刷り込まれる可能性はあると思う。” his opinion “when there is a strong and memorable event, he thought people will strongly remember” and also think that the experience in VR may be strongly imprinted on the brain which is good for memorize vocabularies. Beside that Mr. Kuu in December, 25th 2021 he said that “*Dimensi yang diciptakan VR di Oculus Quest 2 memang mengagumkan*” According to the statement that has been accumulated VR as an education tool might be able to create strong image to the learners and help them remembering the vocabularies through the virtual environment scenery.

3) Experience based learning could change into Cyber-Experience based learning

Based on the result of interview with Mrs. Noiiii in March 1st 2022 she's agree that “VR could create an environment where you can find

study partners, and people” who can help also Mr. Sashishi in February 1st 2022 has similiar statement that “多くの日本人にとって（特に日本人男性！）、外国語の練習相手を見つけることはなかなか難しいことです。VRChat がそのハードルを下げてくださいました。私はそう思います。” Which mean for many Japanese people (especially Japanese men!), finding a partner to practice foreign language with is quite difficult. VRChat has lowered that hurdle. he could find partner for studying language together and Mr. Sashishi in February, 1st 2022 also state “強く同意します。これほど沢山の国の人々が気軽に集まっておしゃべりできる場を私は知りません。” he said strongly agree and don't know of any place where people from so many countries can easily gather and chat. Then, Mr. Sashishi said “仮想現実の中に一つの世界があり、そこに国境が存在しない。特別な空間だと思います。” which mean There is one world in virtual reality, and there are no boundaries and he think it's a special space. In result of this statements, researcher believe VR able to support the learners for finding partner and might be provide better experience in shape of Virtual 3D environments and the researcher believe with game-based approach VR might be less stressful.

B. Discussion

Based on the explanation had been identified above, the researcher discussed the use of VR device for Experience-Based Learning especially for online education in this research entitled “Study of Cyber Experience-Based Learning with Virtual Reality Device for Foreign Language Education At VR Nihonggo Community On Language Exchange Japanese And English Online Class”. Here was the discussion:

1. The VR affecting Experience-based Learning Virtually

a. Virtual Role Play

Role play is a game in which the player plays a certain role or character (Saputra, Yazidah, & Baist, 2023). Also, Nabievna in 2023 mentions Role play as a type of activity that combines communication and objective activities this is indicating to picture 4.1.1 where VR able to support Role-Play which mean the students able to perform as fictional character using 3D avatars for example the students or participants able or allowed to use anime character such as Dio or Jotaro from serial *Jojo Bizzare*.

b. Virtual Field Study

Field study can be described as responses or perspective from actual capture this method of collecting data in qualitative research which does not require in-depth

knowledge of the literature used and certain abilities on the part of the researcher (Joshua & David, 2020). As shown on vintage or picture 4.2.1 researcher might be able to conduct research on Machu Picchu because VR creates the model and give the perspective even though the researcher never visits the place also it has audio explanation with an exception this feature only available on some contents.

c. Virtual Group Projects

Group project or project-based learning (PBL) as teaching method where students work together to create solutions (Guo et al., 2020). It is important that students need to be able working together for overcome problems (Aksela & Maija, 2022) which mean Picture 4.3.1 show student collaborating with others in VR when COVID-19 has been occurred in 2019. This method also described as Project-Based Virtual Learning (PBVL) when the students implementing distance learning without any face-to-face direct interaction in the classrooms (Amstrong, Nixon, & Hojilla, 2021). As a results from picture 4.3.1 VR provides virtual environment for the student and support the learners on group-projects.

d. Virtual Simulation

A simulation is the imitation of the operation of a real-world process or system over time. Simulations require the use of models; the model represents the key characteristics or behaviors of the selected system or process, whereas the simulation represents the evolution of the model over time. Often, computers are used to execute the simulation (Nsabayezu, et al., 2023).

In addition, vignettes picture of 4.4.1 as the example for shooting simulation and showing the researcher possible score at shooting practice or shooting simulation.

e. Virtual Game Based Learning

Game-based learning brings the strategies, rules and social experiences of playing a game into the classroom. The game-based learning model allows teachers to target certain activities that will benefit the real-world application of concepts. This can lead to more immersive and collaborative learning opportunities (Lester, et al., 2023). As result, picture 4.3.1 and 4.5.1 giving the example where student able to collaborative and play while studying in virtual environment. The researcher belief virtual game-based learning could be significantly benefit to mental health, motivation, and communication skills. It leverages the engaging and

interactive nature of games to create supportive environments for learning and skill development. As addition, games naturally engage learners and encourage them to actively participate in language learning, resulting in increased practice and exposure to the target language. They immerse language within meaningful contexts like dialogues or problem-solving scenarios, aiding contextual learning and comprehension improvement. Repeated exposure to language elements in games assists in language acquisition and retention through enjoyable practice sessions. Games promptly provide feedback on language usage, assisting in error correction and reinforcing correct responses immediately, which enhances learning outcomes.

Moreover, games integrate features like challenges, rewards, and progress tracking, motivating learners to excel in mastering the language and making learning enjoyable. Digital game-based learning covers various learning modes such as listening, speaking, reading, and writing, catering to diverse learning preferences and effectively strengthening language skills. Additionally, language learning games often include cultural aspects, promoting cultural understanding alongside language proficiency.

Games establish a secure environment for language practice, boosting learners' confidence and encouraging active participation in language tasks. They also offer flexibility and accessibility, allowing learners to practice language skills at their preferred pace and convenience, supporting consistent learning efforts. Some language learning games foster collaboration and social interaction through multiplayer features or online communities, facilitating the development of communication skills and cultural exchange.

In summary, digital game-based learning is an interactive and efficient method for foreign language acquisition that utilizes technology, gamification, and interactive content to enhance engagement, motivation, and language proficiency. It holds the potential to transform education by nurturing critical thinking, collaboration, creativity, and lifelong learning skills.

However, it's important to approach digital game-based learning with careful consideration. This includes designing effective instructional strategies, ensuring robust technological infrastructure, providing adequate teacher training, offering support for students, and continuously

evaluating the impact of virtual game based on learning outcomes. These measures help mitigate potential disadvantages and maximize the effectiveness of digital game based in educational settings because some of educational games prioritize entertainment value over educational substance, potentially detracting from depth and alignment with academic standards and distracting students from learning goals. Certain complex topics may not be effectively conveyed through games, which heavily rely on technology and can encounter technical issues like software glitches or connectivity problems, causing frustration.

Developing high-quality games can be expensive, posing financial challenges for institutions and accessibility barriers for disadvantaged students. Games, if not well-designed or monitored, can distract students from learning objectives and lack personalization for diverse learning needs. Individualistic gameplay may lead to social isolation, and addictive features could result in screen addiction and neglect of responsibilities. Despite reinforcing specific skills, games may struggle to facilitate skill transfer to real-world scenarios without additional support. Educators need proper training and support to effectively integrate games

into teaching practices and maximize their educational potential.

2. The Cyber Experience-based learning for language learning
 - a. VR could be good for reading situation model

According to the vignettes that has been collected, the researcher might assume the reading material presented virtually in shape of 3D Environment and the reader might have simulation situation based on the story that has been chosen. This could be executed through Sphere Toon, ComixV and etc. on VR device.

- b. VR might be able to improve Vocabulary

The Implementation VR for EFL might increase the student motivation for learning (Lester, et al., 2023) and the researcher agree because from the explanation of Mr.Sashishi and Mrs. Noi as Japanese students it make both of them easy to find partners and practicing their English language proficiency. Besides, VR with Game-Based approach might create strong memory, less stressful and increase their interest in learning which might researcher assume to influence the learner vocabulary by having strong virtual image.

c. VR could be good for public speaking

The experience-based learning education might be able to influence public speaking virtually with the help of VR tools because the capabilities on supporting the experience-based education.

The researcher believe activity that could be done on VR might imply to role-play, virtual group projects, virtual simulation, and virtual social game-based learning or virtual social gamification on VR might be compatible according to the data that had been collected. First, Virtual Role-play act might be executed through 3D character beside that, the character could be created by self or download on browser that has been shared by others. Then, the virtual group project able to performed on VR when connecting to network or internet. After that, VR are supported for virtual Simulation or imitative representation because VR able to represent a situation through computing. Finally, students or participant might be able to experience social digital gamification or game-based learning on VR. Playing games while learning seems possible on VR however it might cause the participant or students less focus on study due to the playfulness environment and attractive that might be

disruptive to the students or participants and if the participant or students having attention deficit hyperactivity disorder (ADHD) the participants or students are highly recommended to having consult first before trying VR.

This result had been shown in shape of vignettes or pictures at chapter 4 where the data collected which make the research believe with help of virtual reality experience-based education strategies might be able develop into new stages for distance learning.