

Applying Second life in New 3DMetaverse Culture to Build Effective positioning Learning Platform for Arabic Language principles

Ahmed Dheyaa Basha¹, Ahmed Isam khaleel², Satar Habib Mnaath³,
Rozinah Jamaludin⁴

*(Center for Instructional Technology and Multimedia (CITM) Universiti Sains Malaysia, Penang, 11800, Malaysia)

Abstract: This paper aims at investigation an effective e-learning platform where Arabic students from overseas can help and learn others in Malaysia the Arabic Language Principles (ALP) and the new culture of reading Quran by use 3D Metaverse. First, we present the outcomes of preliminary survey to international Muslims students regarding their study interests related to Arabic Language principles (ALP) and Quran culture. Second, we summarize the design and application of our learning platform in Second Life (SL) based on the concept of effective positioning learning that confirms materialized interaction with the external objects/ environment in high process of learning. The platform comprised traditional Arabic architecture for Mosques, such as congregational prayer, Quran recitation, and supplication, use a compass to determine the direction of Kaaba, etc... . The students can also reconnaissance those architectures in virtual space and embodiment with their avatars. Third, we explain the outcome of the analysis of our learning experience in second life (SL) among international and Arabic student based on a lot of interaction between students and with objects in the virtual space. Eventually, We will explicitly and discuss many advantages and constraints of learning process in our study via Metaverse platform in terms effective learning of ALP and Quran culture.

Keywords: Effective positioning Learning, 3DMetaverse, Second life (SL), Engagement of learning .E- learning.

I. INTRODUCTION

Of late the biggest great interests in applying 3D Metaverse have been growing increasingly and rapidly not just as a collaboration and communication platform or a basic infrastructure of online commerce , but also suitable an infrastructure for immersive and materialized e-learning. Nowadays the second life (SL), is a very popular Metaverse service by private internet Laboratory like an American' Linden Lab (ALL) mimic the many software as a good virtual environment for SL such as phoenix -viewer program which provide a lot of features for SL environment and its applications [1, 5, 6], Moreover (ALL) equips the very effective ambience for building online universities virtual classroom, mosque or place for staff conferences on the internet. Avatar, which materialized a user agent in the three dimension space, can roam around the virtual environment arranged by electronically built objects, interact and collaborate with many of the other materialized 'ideas (avatars). These aspects of the Metaverse have the high great possibility as a platform for effective positioning learning and collaborative and engaged learning among a big number of users that has been some difficulties and obstacles to running on the web based e-learning environment [7, 13]

II. PURPOSE OF STUDY

In this study we have been highly focused on establishing the learning environment for Arabic language principles related teaching and learning the Quran such as congregational prayer , interpretation or Quran recitation, and supplication, use a compass to determine the direction of Kaaba, how the worship in the mosque and some Arabic' culture in 3D Metaverse. Also one of important aims is to provide the international students in Malaysia with their peers from Arabic' countries to learn and study APL and Arabic' culture. The second major goal is to absorb and understand the benefits and disbenefits of 3D Metaverse from the approaches and perspectives of supporting platform for foster the effective positioning learning of ALP and concept of Arabic' culture through to read the Quran and assets of worship in the mosque which materialized in the 3D Metaverse.

III. Terms Used In The Study

1. E-Learning

E-learning is a learning program that makes use of an information network, such as the Internet and multimedia , for course delivery, interaction, and/or facilitating the learning process in different virtual learning environments (VLE) such as MOODLE, blogging tools, social networks, etc.. . Web-based learning is a subset of e-learning and refers to learning using an Internet browser, such as Internet Explorer .In this paper e-learning point to collaboration' station and engagement between participants via suitable electronic means to use 3Dmetaverse [3,8,11].

2. Linden Research

This term derived from Linden Lab, is a privately held American internet company that is best known interesting as the great creator of second life (SL), the major aim is to communicate and collaborate on a lot of projects and applications using (SL) technology around the world[4,12].

3. Metaverse

The term coined in 1992 of science fiction novels, where use humans as avatars, through a collective online shared space, to interact with each other and use some software agents in 3D space that uses the metaphor of the real world, in which a lot of collaboration, engagement, and share one of its applications is (SL) created by the gathering of virtually enhanced physically persistent 3D virtual space linked into perceived virtual universe via internet [9, 14].

IV. Methods

1. Introductory survey

Primarily, we managed our survey on students' needs on the topics regarding (ALP) and their culture to about 46 international students from USM university and UUM university in Malaysia from (CITM) faculty and computer sciences from (IT and ICT) apartment for postgraduate students. The participants from this survey were solicited to give answers by free description in Malaysia's universities which mentioned former regarding their needs as well as demographic data related gender, nationality, age, and the length of studying Arabic. As an outcome of the content analysis based on demographic and data, found differences concerning gender. Strongly the female students were more interested in the scarf, meeting in the mosque, and seminar for reading the Quran, while the male students were more interested in terms of congregational prayer especially Friday's day, bowing and prostrating, teach the Quran's principles, and use a compass to determine the direction of Kaaba. Public topics for both genders were traditional structured such as fasting, Eid prayers, Hajj, Umrah and other festivals for Muslims. In addition a lot of them were very interested in the Arabic traditional habits; the "Fig.1" displays some of the effective learning environment for second life (SL).



Fig.1 Displays effective learning environment for second life (SL)

2. Building suitable e-learning environment

In this respect we conducted our survey on the public topics triggered by international students. In addition our specially selected the traditional structuring like prayer and use a compass to determine the direction of Kaaba. All these aspects built in SL for learning APL manner and habits while visiting many of the mosques. Figure 1 displays the snapshots chosen from the ambience of SL in effective learning environment which we have contributed builds in SL.

3. Experiences of Learning

There are two experiences; we conducted in the 3D Metaverse environment, in which we adopted two suitable theoretical framework of learning science, first is effective positioning learning which confirms the interaction and collaboration of learners in contexts of social and cultural. Second is the paradigm of learning by teaching which consider as a key element of concept of collaborative learning. Figure 2 displays the some of the scenes of the experiences of learning.

3.1 First experience

Three groups of an international student and Arabic student were partnered in the first experience. All participants or majority of them had little experience using SL. Each group chose one personal computer connected to SL. Hold one avatar, and explored for the learning environment for about one or two hours. Arabic students in Malaysia clarified to the international students about the many Arabs' traditions and habits of prayer such as congregational prayer, Quran recitation, supplication and teach the Quran's principles. The international students keep on experienced those usages while engaging their avatar. In addition they studied by number of questioning on the reason to do this experience, and swapping their suggestions and opinions. Each group had avatar operations and conversations, as well as video were recorded during the experience. Moreover the chat information in second life was conducted and stored also in the log file. After the test; all participants from students had a discussion and collaboration as a group to review their new experience and impression about this culture.

3.2 Second experience

Also same three groups of international students from first experience had partnered in the second experience. Three groups of Arabic students were different last time. In addition they made a group of international and Arabic students. Also all participants of students had little experience of using SL. The time was one or two hour of the experience reversed in

last time, international students had the syllabus related to explain and learning environment ALP with details which mentioned previously. Arabian students questioned once students had a different understanding. They test syllabus together, once their suggestion and opinion didn't match on the habits of visiting a mosque. Moreover the avatar operations, Chat data, and conversation in second life was conducted also and stored into the log file. After the test; all participants from students had a discussion and collaboration as a group to review their new experience and impression about this culture.

V. Results

1. First experience

Finally and after the first experience, the conversation log, Chat data, a record of all avatar operation, and the cloned data of review session was obtained. Concerning to the data collected, the majority of international students referred that the avatar operation in a 3D virtual environment gave them clear comprehension of Arabic' habits and their manner of teaching and learning the Quran and prayer robustly than just the textbook or receiving an explanation in a traditional classroom. Moreover some of Arabic students mentioned were also a very good chance for them to increase their experience to teach another student the detail way of praying in the mosque. Meanwhile, some learners described the sense of mismatch when they learned something different from the actual world. Such as the difficult motion of avatar or some unnatural activity of cited physical objects in the virtual environment, "Fig.2" Displays Scenes of effective learning experiences.



Fig.2 Displays Scenes of effective learning experiences

2. Second experience:

As an outcome of the second experience, the all international students debriefed that using an avatar to materialize in the virtual environment to clarify Arabic' habits of Arabic ' students to outstanding their comprehension. Meanwhile Arabic' students had a suggestion and opinion that receive the clarification from international students were very interesting and useful experiencing to reverse their own culture. Moreover, few of them mentioned that was not easy to update their response to international students particularly, once they denied international student's clarification.

VI. Concllsion

This study explained and suggested 3D Metaverse- based learning it can be very effective for the learning of Arabic' habits, principles of Arabic language, and culture compared with the traditional way to learning students with textbook through traditional classroom. Moreover this study suggested process of learning by teaching 3D Metaverse is very useful to foster the consciousness of Arabic culture for both the international and Arab students. In addition this study finds out that the unnatural cloning of the physical space in environment of second life has a big effect on learner's admission of the case and context. This study is very important for collaboration and interaction between learners to exchange the knowledge and skills between them. Current time we plans for the future to include enhancing these problems related this

field as well as expanding into this platform and its possibilities of the 3D Metaverse for effective positioning learning for many languages and different cultures like Arabic language principles(ALP) and culture.

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