THE IMPLEMENTATION OF VIRTUAL LEARNING IN EDUCATION: A FRAMEWORK

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Abstract
Virtual learning is very important nowadays because people likely focus on the modern environment other than the traditional environment. Most students nowadays like to study on their own at home because that is where their computers are. They will find it fun. Virtual learning is a system that make a learner study while online. Besides that, virtual learning has its own advantages and disadvantages to learners in terms of cost effective, easy distribution, up to date content and customizable. Virtual learning will frequently use in the future because its information has the accurate and precise one. The purpose of the research is to implement virtual learning among learners.

Keywords: education, framework, perspective, satisfaction, virtual learning,

1. Introduction
Barak (2012) defined virtual learning as distance education as learning via any type of technological which enable students that are away from teaching place to acquire some knowledge they learn at the place too. Alves (2017) stated that there is an increasing interest in the virtual learning environment supported by the internet namely among educational institutions, teachers and students. However, the topic virtual learning can be emphasized in few other contents by looking at a person perspectives of it. People nowadays have been equipped with the best technology such as sophisticated smartphone, tablets as well as other electronic devices. Most of schools nowadays use least of printed exercise. They are using printed sources or using virtual learning. Virtual learning takes many place in the school. Virtual learning also been use in other institution as well as other organization and also for university as well. As user can see, virtual learning is a connecting learners who may be located physically somewhere with their learning that is somewhere else.

There is some method that will be used in how virtual learning been known to learners which is in terms of virtual learning perspectives as well as the satisfaction. User perspectives on the virtual learning will be focusing on three main discussion which is effectiveness, environment and experience. Firstly, effectiveness is meant by did the virtual learning process went as it supposed to be and did the user find it beneficial. A system that is found unbeneifical for the users are not necessary as it cannot be use whole. Secondly, is the environment of the virtual learning. For the environment perspectives, how and in which most likely state the electronic learning should be conducted will be explained.

There are some study that have been done to identify the implementation of perspectives and satisfaction among students of International Advertising.
Communication and Technology (IACT) College The implementation of e-learning in its various form can be costly to an organization due to the relatively low adoption rate among users (Sawang, 2013). Besides, there are some lack of understanding of individual differences and perceived values of technology relationships and effects on online learning adoption (Watjatrakul, 2016). This study conducted the implementation of virtual learning perspectives and also the satisfaction toward the learners and also the society. The purpose of the research is to implement virtual learning among learners.

2. Literature Review

2.1 Virtual Learning Perspectives Among Students

Following the rise of advancement in technology, resulting to the new trends in education. One of the main attention to the new trend is the virtual learning or also known as online education and most known with the term ‘e-learning’. What is e-learning? Electronic learning of e-learning can simply being understand as learning and teaching tools set designed to improvise the student learning experience in a more interactive by with the use of devices such as computers and network which is the Internet in the learning process. The topic of virtual learning can be emphasized in few other contents by looking at a person perspectives of it. In this paper, user perspectives on the virtual learning will be focusing on three main discussion which is effectiveness, environment and experience

2.1.1 Effectiveness of Virtual Learning

According to previous study, the author believed that educational level do have effect on the effectiveness of the virtual learning system as if the teacher have qualification in highest educational level such as master and PhD, they will tend to choose the most effective choice in media, tools, and functions for the system compared to the teacher with low educational level (Soon & Kadir, 2016). However, it is stated that the effectiveness of e-learning can only be gained if it is interactive, for instance by providing game-like leaning environment which can helps in boosting the learners knowledge building as they experienced doing activities that can help generating knowledge based on their prior experience (Robinson & Cook, 2018; Chau et al, 2013). According to another author, students can have more systematic lessons as the e-learning flexibilities itself offered variety of delivery ways in learning for different type of learners compared to attending physical classroom which can motivate their attitude, willingness to learn about the technology and their satisfaction after taking part in the blended learning itself (Luaran et al. 2013; Kintu et al., 2017).

2.1.2 Environment

Environment is crucial as it helps to differentiate between the physical class and online class. Based on previous study, the environment of the virtual learning system should be presented in one single interface in order to enable users in contributing ideas by having features such as includes components required for either education or
training and also authoring tools such as adding, modifying and also commenting (Khor, 2016; Lihitkar, 2013). To add, with the use of high-speed virtual learning system such as ‘Frog VLE’ that allowed participation, ideas sharing, expression freedom and ICT competencies, aid teachers and students in accessing variety of learning tools and learning resources (Hew & Kadir, 2016). However, that situation caused worrisome to the educators as they lose ability unable to control access to mobile technologies among the learners (Babula, 2018). Besides, another author opined that the capabilities of web 2.0 turned VLE’s offered greater potential for VLEs as testing, promotion, planned and directed teaching strategies were supported. Moreover, additional strength features such as accessibilities, user-friendly and PDF download also created an effective and efficient virtual learning environment (Alves et al., 2017).

2.1.3 Experience

The effectiveness of the virtual learning environment can be determined based on the user’s experience. Previous study showed that the virtual learning environment helped students to be more prepared and skilled as they are offered with opportunities to apply the acquired knowledge while participated in the learning process (Marcos, 2016). In addition, most users of the virtual learning environment were comfortable with the type of learning as they are able to move at their own pace (Montgomerie et al., 2016). However, it is found that virtual learning are challenging for students who lack of the online classroom functions (Gedera, 2014). Therefore, they are unable to explore the environment thoroughly due to lack of familiarity, unless they went for practice before involving in the virtual learning environment. According to previous study, the students found out that informative interface which provide much information in one page were attentive as they can get all information that they required before participating in any other assessment or activities (Robinson & Cook, 2018). Moreover, online learners experienced new methods in learning which is more ease as they can read a file, save or print notes rather than in the physical classroom state (Alves et al., 2018). Therefore, there is no doubt that the existence of online learning help learners to be more creative and independent in the learning process as they tend to explore the environment independently and gained new experience from it.

Table 1. Analysis of Review

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<th>Authors</th>
<th>Effectiveness</th>
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2.2 Virtual Learning Satisfaction among Learners

People nowadays have been equipped with the best technology such as sophisticated smartphone, tablets as well as other electronic devices. Most of schools nowadays use least of printed exercise. They are using printed sources or using virtual learning. Virtual learning take many place in the school. Virtual learning also been use in other institution as well as other organization and also for university as well. As user can see, virtual learning is a connecting learners who may be located physically somewhere with their learning that is somewhere else. There are some virtual learning can be learn toward to learner satisfaction in terms of e-learning environment, the experience and implementation.

2.2.1 Environment

The important of virtual learning environment is to enhance the learners to gain knowledge anywhere and anytime. According to Songkram (2015), virtual learning environment for creative development is necessary which found that young learners thinking skills is very low. Besides that, based on Ranjbarard (2018), virtual learning environment can be a place of level of interaction and conversation for students as well as for instructors. In her article, Yi & Gong (2013) stated that there are two field to value co-creation attitude of participation behavior and citizenship behavior. Besides that, communication among learners will also affect their achievement in online course. Other than that, Timothy & Su (2013) also stated that the changes kind of method form traditional learning environment to an online learning environment will benefit to the learners in terms of increased efficiency, decreased the usage of cost, transparency, flexibility, consistency and improved students' performance. Based on Kim & Lee (2011) learners can experience on how to prepare learning methods and materials. How the learners learn in the e-learning environment has been changing completely and are expected to contribute to information, create idea and concepts and also evaluate their learning experiences. With this kind of environment, the learners motivate themselves to involve more intensively to the materials. They will sense achievement.

2.2.2 Experience

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Based on Ortega & Liz (2015), in virtual learning learners can communicate with each other with their character. For instance, like avatar, they can change the character in many ways, but mostly learners choose to use the human-shaped one. They also stated that learners can experience the virtual learning in terms of online journals, video and sound captures, chat transcripts, semi-structured interview, asynchronous discussion as well as students' artefacts. Farley (2013) stated that virtual environment is necessary to generate immersion. When learners involve themselves in virtual learning, they can feel being there in the virtual world. It will the learners to a sense of flow and commitment to learning. Virtual environment makes the learners can sense of place. It can link people to place. They can share their emotional meaning to a particular space. Other than that, learner can also play game in the virtual world as one of the ways to satisfied themselves and add on their knowledge. It is way to make learner adaptable, and flexible as well. In addition, Valarie & K (2017) mention in their article that virtual world creates a natural motivation in terms of pressure, the feeling of joy when subject is discovered or investigation that can be solved.

2.2.3 Implementation
Sawang & Jamieson (2013) analyzed that learners can implement virtual learning can add the existence such as face to face system and provide training for personal development. They stated that characteristic is one of the key to a e-learning implementation. E-learning can be relate to learner self-efficacy. It can affect the essential motivation for performing a task. One particular individual has their confident ability to performing a task using a technology can be define as technological efficacy. It has been found that learner as well as employees satisfied with their work using the technological efficacy. Besides that, learners also learn the openness of change. Individual that want to change have the opportunity to have the positive experience than the other than who resist to change. Organizational also support the use of the e-learning in the organization. Other than that, Dixon (2017) mentioned that there virtual learning team can make effective choices. Based on Hsin & Lin (2018), learners are the person that can really understand of the system. Learner that have the skills on technology will have better understanding the use of the system. E-learning will be the easy platform for them to provides themselves convenient materials and well-designed courses.

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Figure below shows that the proposed framework to guide this research concerning the perspectives of virtual learning which are effectiveness, environment and also experience of the users. There are four independent variables identified in this study. Independent variables defined based on previous discussion in Section 2.1.1 Effectiveness, Section 2.1.2 Environment, and Section 2.1.3 Experience. These independence variables are essential as if the opinions regarding each aspect is explained positively, then the perspectives can be seen in positive way, whereas if the aspect seems to be ineffectively discussed, then the student’s perspectives on the virtual learning will be negative or unbeneﬁcial.

Figure below also shows that the proposed framework to guide this research concern virtual learning satisfaction among learners which are virtual learning environment, experience and implementation. In this study, we identiﬁed those three different independence variables. Independence variables deﬁne based on previous discussion in Section 2.2.1 Environment, Section 2.2.2 Experience, and Section 2.2.3 Implementation. These independence variables are essential due to virtual learning satisfaction among learners.
4. Conclusions

In conclusion, virtual learning is very important nowadays because people likely focus on the modern environment other than the traditional environment. Mostly students nowadays like to study on their own at home because that is where their computers is. They will find it fun. Virtual learning is a system that make a learner study while online. Besides that, virtual learning has its own advantages and disadvantages to learners in terms of cost effective, easy distribution, up to date content and customizable. Virtual learning will frequently use in the future because its information has the accurate and precise one. Learners can direct learn from virtual learning but never forget how to use the traditional learning environment. Virtual learning offered many strength and uses for students, in any level of education and also to the educators themselves. To ensure the efficiency and effectiveness of the virtual learning as a whole, it is must that every part of the online environment to be seen from different perspectives. Online education help students to explore variety of learning pattern as well as improvised their quality of learning. Moreover, the use of technology also help
students to be more digital literate as well as allow users to experienced new functions and learning styles while using it.

References


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