

Digital skills and research methods

Term 2

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Introduction

According to Bani-Salameh et al. (2017), the overall emergence of the virtual learning environment" (VLEs) is growing. It has been adopted as a new solution and way of learning for cross borders and distance learning. Moreover, many students are not able to complete a variety of activities and exercises in an environment of "computer-based learning". Goesser et al. (2018), it is essential for the student in real-life events cannot be performed due to the precarious nature. So for this purpose, many different simulators are used for the past decade to train the students.

Rationale

Fowler (2015), stated that VLE is a great tool for practising effective and improve educational practices. This study will be helps the Institutions and teacher in improving the teaching and learning practices in the higher education system with the help of VLE as it provides the overall means for managing the experience of learning, to communicate the intended experience of learning and also facilitate the learners and tutors' engagement in the improved education system. Moreover, this study aims to ease, encourage and also provide the experiences of learning which could go beyond the vicinity of institutions.

Jimenez et al. (2018), and Rienties et al. (2016), estimated that VLE could improve the quality of education. Dascalu et al. (2015), found in their research that training of computers is the most effective tool for improving the quality of education in institutes. Furthermore, numerous studies have shown that a true learning environment is more effective and enjoyable than an out-dated environment of learning. Vaganova et al. (2017), have involved the use of VLE (VLE) learning technology information and communication. Case studies are usually associated with learning necessary computer skills, such as word processing, that everyone should learn or teach during the day. This study will be provided the overall

Objectives

The primary objective of the study is to examine the impact of the VLE in the institution of higher education and student's learning experience in general

Literature Review

Webster, (2016), to compare the traditional classroom with VLE has been used to teach necessary computer skills and De Boer, Wesselink and Vervoom, (2016), have used VLE for teachers on how to implement VLE in teaching. Use VLE to synchronize video presentations with "PowerPoint slides" and documents, and Lan, Hsiao and Shih, (2018), and more. The experience of using VLE in universities is mentioned. Wang et al. (2016) conducted a one-semester experiment. The test conditions are accurate so that statistical methods can be used. In the study 146 students contributed in the session of research, which included basic computer courses. This hypothesis shows that VLE students perform better on exams than at regular times. VLE students do better than traditional grades, but the overall difference is not significant.

Moreover, the hypothesis of the change between control satisfaction and VLE is correct. Amazingly, my students' satisfaction was with the VLE group. Cassidy, (2016), compared students' learning experiences and academic achievements. Students take basic computer courses. Additionally, the other group with 105 students, were taught over lectures and another group with 180 students provided online courses. The results show that both groups performed laboratory tests with TA each week. The evaluation shall be based on a mid-term review. The exam consists of "multiple-choice questions" to test students "learning skills and questions to assess students" computer skills. A total of 261 students participated in the survey. This study did not show differences in learning or satisfaction between the two groups. Students teaching courses are more successful in concept work than online classes. The result of the study shows that the same speaker

teaches both of the groups and ensures that the materials are similar for both of the groups. The success of the study is dignified by assessment results (objective method) and questionnaire (conceptual method). In this test, the students of the online environment did much better than the students of the regular classes. However, in this case, there was no significant difference between the groups.

Methodology

According to Feys et al. (2015), study methodologies are the strategies and techniques that contain steps from general expectations to methods for collecting, analyzing and interpreting detailed data. Therefore, this is based on research questions to be solved. There are three different groups of research methods, including "qualitative, quantitative and mixed methods". The purpose of "qualitative research" is to express the experience of a particular group of own words so that it focuses on the story. For many of the researchers who are familiar with traditional abstract technology, the assessment of "qualitative research" can be complicated. Unlike "quantitative research", in "quantitative research", researchers identify "specific hypotheses and then collect data for the empirical test", namely qualitative research. The research uses inductive methods, where researchers begin to collect data and then work to interpret the data. Therefore, qualitative research is often research and attempts to provide information about how individuals (or organizations, groups, etc.) understand different aspects (Nowell et al. 2017).

However, "quantitative analysis" requires numerical data in the process of variables. A variable is a method for determining a change or function that has "two or more possible values." For these "numeric variables", the numbers used to measure variables are important because they measure the size of an existing variable. Moreover, many researchers generally rely on a non-numeric appearance. "Quantitative data" can be created in several ways, for example,

"questionnaires (Surveyor Interviews) are usually used to collect quantitative data and require the defendant to provide data on" attitudes, experiences, and demographics and so on. Most surveys include information classification; direct or raw data collection. There are many methods, including surveys, structured questionnaire, live surveys and focus groups (Bryman, 2017).

Finally, the "mixed method" is a research technique that allows researchers to collect and analyze "quantitative and qualitative data" in the same study. Exploring mixed methods can benefit from the potential benefits of qualitative and quantitative approaches that allow researchers to explore different perspectives and reveal relationships between the complex dimensions of our multidisciplinary research problem. With the help of researchers on hybrid methods, all data can be collected with interviews and surveys. In this study, the researchers also used a "Mixed approach to the research method" because all data were collected using a "qualitative and quantitative method" both. (Vaismoradi et al. 2016).

Data classification methods

The method of data collection is considered to be one of the most important steps in the whole study, as all other techniques and methods are determined based on this section. "Secondary and primary data collection methods" are considered to be two methods used by researchers to collect their data. "Secondary data" is data collected by someone other than the user. Common sources of secondary social science data include "the census, information collected by the government, agency files, and data originally collected for other studies". "Secondary or theoretical research" is a research method involving the use of existing data. Compiling and comparing existing data can improve the overall validity of the computer. Support data is available from other sources, so there is no clear collection method (Thomas, 2015).

However, the “primary data source” is the source of original data that is collected directly by the researcher for a specific research purpose or project, and there are many ways to collect the original information. But the most common techniques are "personal research, interviews, field observations and experiences". Compared to secondary data collection, primary data collection is expensive and time-consuming (Roberts, 2015). However, collecting raw data may be the only appropriate method for certain types of research, and there are many ways to collect raw data. But the most common techniques are "self-training, interviews, field observations, surveys and experiences". This may be different from the concept of "primary data source", which collects data directly for a specific purpose. In this study, the researcher also used a "secondary and primary data collection method" because all of the data was collected from secondary and primary both as the researcher has conducted the survey and collected the data from past studies as well (Rahi, 2017).

Primary Data Analysis

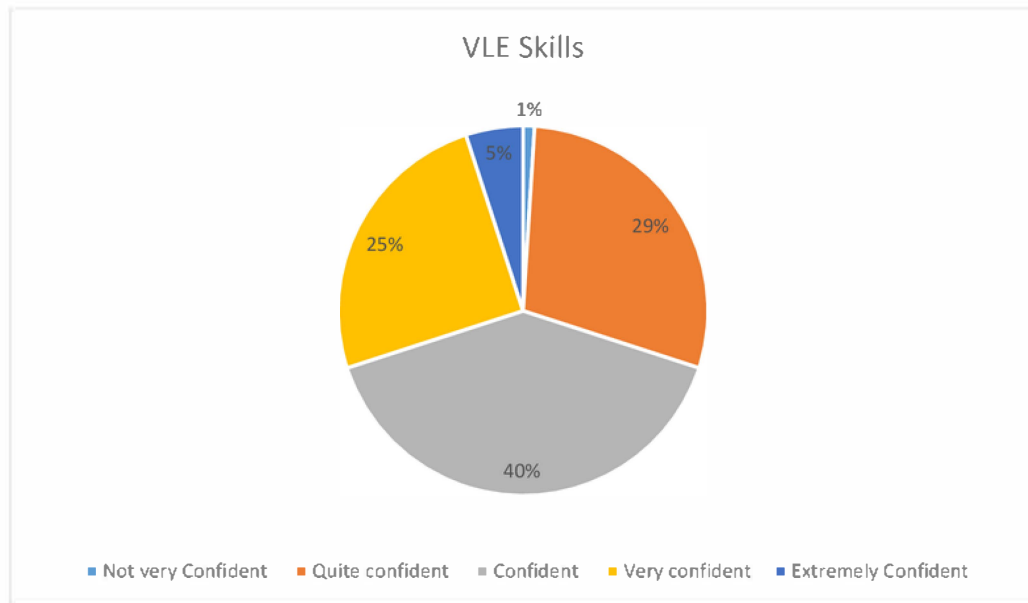


Figure 1: Perceptions of students on their VLE skills

The results show that 70% of students consider their VLE to be "confident" or "very confident" in their VLE skills, and another 30% are considered "sufficiently secure" (see Figure 2).

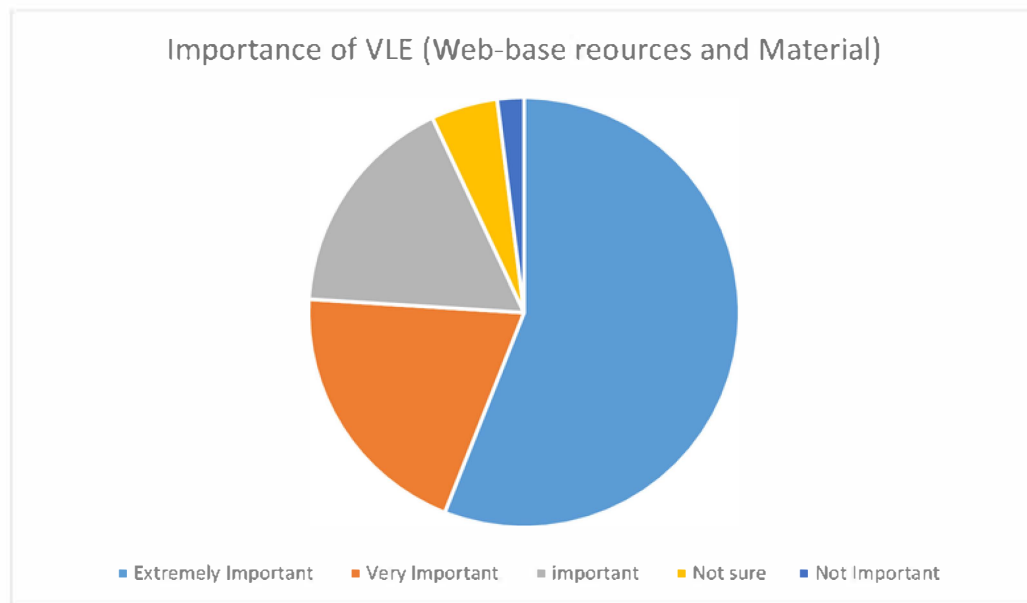


*Figure 2*The perceived importance of web-based materials and resources

The student comments on the module's views on the value of web-based resources also indicate that this is considered "very" or "very important" (see Figure 3).

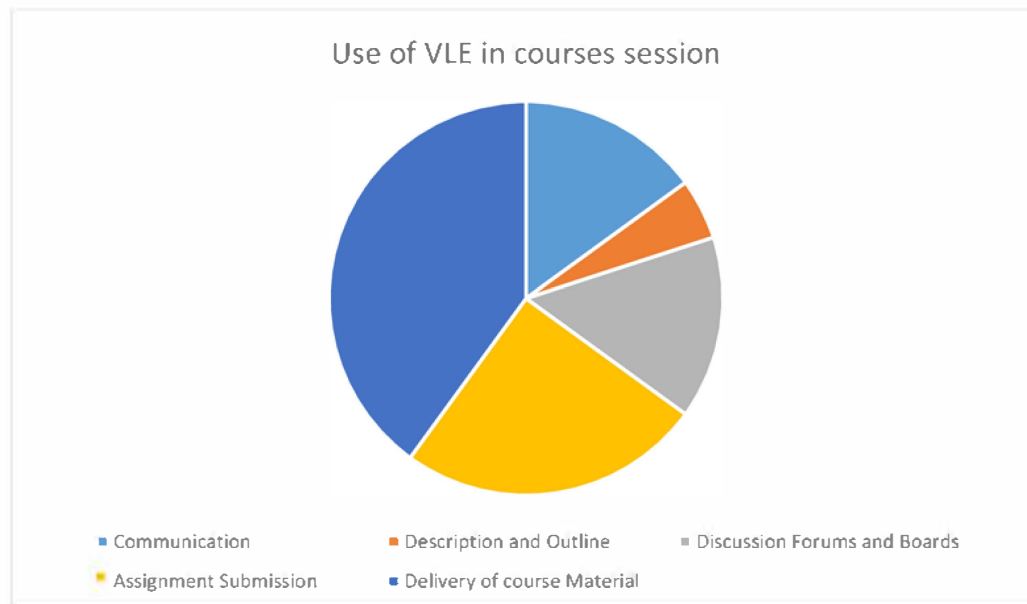


Figure 3 Students use of a VLE during a Research Methods module

Based on the types of activities that students carried out using the VLE website during the module study, the results showed that the presentation and review of course material had the highest score (35%), followed by students who used discussion tables/forums (25%) (see pictures 4).

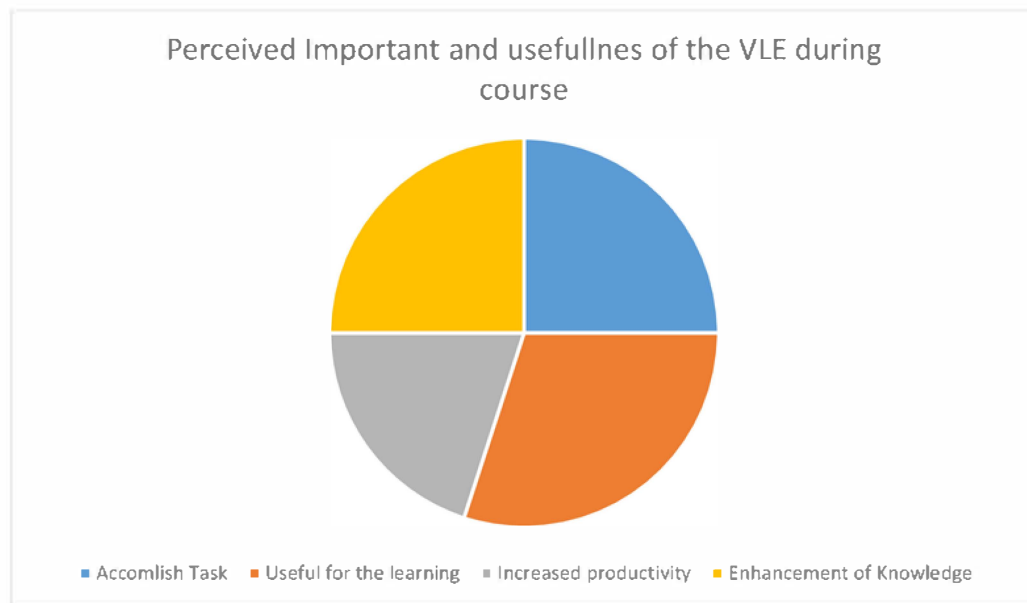


Figure 4 Perceived Important and usefulness of the VLE during the course

Student evaluations of the use of VLE indicate that all students agree to change the degree of VLE that is useful for their learning.

Secondary Data Analysis

The main conclusion of this study was that the students interviewed believed in their VLE skills. Through the innovation of VLE-based parenting, users' prior knowledge and skills play a crucial role in the future use of technology by consumers. Wang, (2015), students with good decommissioning skills are more likely to use well-thought-out e-learning resources, and while training needs are high, those who believe in their decommissioning skills may become more accessible. VLE-based educational programs such as VLE. Student responses also indicated that they believe that VLE is easy to use and that if VLE is offered in the future, they will use VLE in the future. The ease of personal and intended use directly affects the actual use of any system. In

short, if students have positive experiences with using positive experiences, they are more likely to use thresholds in the future. Students also stated that they liked the tools of the VLE Chat Forum, which shows that VLE can not only create a sense of loneliness but also enable students to contribute and create "shared wisdom" in the process. It is also possible to improve students' motivation by ensuring that learning is not a classroom contact but is tailored and defined by the students. Also, the VLE itself seems to demonstrate independence in student responses, indicating that they enjoy viewing and reviewing study material and assessment information. While one of the goals of education is to promote independent students, does VLE seem to offer an opportunity for students to decide on their time management skills (how, when and where they want to learn) and what they would like to do with the interaction team? Together with the teachers, both examples show the centre of the student centre. Wang et al. (2017), a significant advantage of the discussion forum is that it allows students to discuss topics and ask questions that may be uncomfortable in the classroom. Similarly, the nature of web-based chatbots can obscure students' gender, race, and socioeconomic differences that may affect the real world in the classroom. Besides, discussion groups make students not only users of learning materials but also producers of learning materials by sharing their ideas, resources and articles.

Simsek, (2016), understanding the value and ability to give feedback to the VLE collaboration component is also a topic that students highly value in the questionnaire. In the VLE scenario, tutors do not always provide feedback but actions that encourage students. Unlike classroom communication, giving students feedback on the spot can be stressful and difficult. Cuthell, (2017), VLE allows teachers and other students to receive disproportionate comments, provide students with reflections, and a set of thoughts. Besides, unlike classroom communication, they can be viewed online and through a discussion forum (written/oral) explored clearly. Hazari

and Thompson, (2015), the transparency and revised curriculum also allow teachers or other students to deal with misunderstandings or learning difficulties. Using teaching methods in the classroom can create positive relationships between tutors and students (and between students). Tutors can provide initial support but gradually decrease over time, making students more independent and collaborative in their studies.

Conclusion

The results of this study show that students have sufficient knowledge, ie. Essential VLE skills, ability to use connected devices, and a strong and positive attitude towards using VLEs for educational purposes. Students find that VLE is easy to use and happy with the idea of learning another language in the future. VLE allows students to use the discussion forum whenever they need it and want it, which is invaluable to their academic research. Besides, the use of VLEs (if properly designed) can allow students to become self-centred and independent gradually. It promotes "generic skills" such as time management and "independence in learning" as well as learning outcomes in certain subjects.

Recommendation

The discussion of the study shows that in the era of new technology emergence, it is recommended to the higher education institution to provide the facility of the VLE during the course programs. Moreover, the management of the higher education institutions should also conduct a training session for the students and teachers both so that they could be able to know how they could operate the VLE. On the other hand, for future researchers, it is recommended that to conduct an in-depth interview with the students and mentors to evaluate their experiences related to the environment of online learning platforms.

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