

Students Opinions on the Use of a Virtual Learning Environment at a Higher Education Institution in Dubai



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Abstract : The need to enable more flexible modes of education delivery coupled with the greater availability of online resources has seen many educational institutions introduce Virtual Learning Environments (VLE). In order to assess students' opinions on the perceived use and value of a VLE, a questionnaire was circulated to students studying on a Masters in Education degree programme in Dubai on a taught module that used a VLE to support face to face instruction. Results revealed that students perceived the VLE to be easy to use, perceived it as valuable for their academic study and were agreeably receptive to the idea of using one in the future for other modules and courses. Students used the VLE to access and review course material, discussion forums and as a means to receive academic and peer feedback. The effect of a VLE promoting collaborative learning and learner independence are discussed.

Key words: Virtual learning environment (VLE), Students opinions, Technology Acceptance Model (TAM)

INTRODUCTION

The 1990's saw the advent of smaller, faster, cheaper, user friendly computing technologies such as laptops, interactive hand held devices e.g. PDA's (Personal Digital Assistants), electronic notebooks and web enabled phones. These devices are portable, lightweight, networks enabled, have fast processing power, are priced within most individuals personal budgets, and have the ability to host a variety of cross platform applications. These factors have in part lead to an increased use of computer and mobile based technologies in educational settings as a means to aid traditional face-to-face teaching by providing educational content and material online[1].

Managed Learning Environment (MLE), Virtual Learning Environment (VLE) and Computer Mediated Communication (CMC) are terms that are often used interchangeably, they are typically used to refer to a set of web based teaching and learning tools designed to enhance the learning process and the student's learning experience. The principal components of a VLE package typically include curriculum mapping (breaking curriculum into sections that can be assigned and assessed), electronic communication (e-mail, threaded discussions, chat, Web publishing), and Internet links to outside curriculum resources. There are a number of commercial and free VLE's that have now been adopted by many educational institutions

e.g. Blackboard, Moodle, WebCT, as a means to wholly deliver or support educational

content that is delivered via face to face instruction by providing students with various online resources and online tools [1].

The Government of the United Arab Emirates (UAE) has invested significant funds to develop education and has designated Information Communication Technologies (ICT) in Education as a national priority [2]. The Ministry of Education of the UAE in its strategy document Vision 2020 emphasizes the use of multimedia-based instructional materials in educational institutions and stipulated that upper secondary schools should have a computer ratio of 1:1 by 2010 [3]. Public and private educational institutions in the UAE have as a result adopted strategies aimed at increasing ICT provision in classrooms through the deployment of various ICT tools such as Interactive White Boards (IWB's), VLE's, personal laptops and Ipads [4]. The use of ICT within the Education system is aimed at improving the quality of offered instruction and as a means to promote student-centric teaching methods that help develop self-directed, life-long learning behaviours in learners. In addition by introducing technology skills via the formal education system it is hoped that students are being equipped with stronger technology skills needed for engagement and participation in modern life, e.g. e-health, e-governance, lifelong learning via elearning [4].

Research assessing the effect of laptops in education has found that the availability of online resources and the ability to work cooperatively with other students as and when students wish to, via email, or in a shared online space, as opposed to being constrained by 'fixed classroom hours' has been identified as a positive factor by both teachers and students [5]. With network enabled laptops teachers were able to introduce project based group work and assessment methods with greater reflective peer evaluation as it was easier to share and comment upon produced work. Students were also found to be more creative and experimented more in terms of the resources and material they used in their projects, reports and presentations [6].

While networked devices can enable greater collaboration in education, there is sufficient evidence to suggest that computer use can foster and create greater feelings of

isolation as well as promoting and facilitating addictive technology dependency behaviours rather than creating independent autonomous learners [7]. Furthermore, the frustration that students encounter when dealing with failed equipment has been found to negatively affect students motivation to learn and the amount of actual time spent on given learning tasks [7]. The problems of distraction and loss of concentration that laptops and computers cause when students use it for non-educational purposes during educational activity time has also been noted as a point of concern [7,8].

Research has found however that well designed web based courses that combine distance and enable easy online presence for the learner make the learning environment more robust by affording a variety of learning activities using tools and resources available in an online context [9]. The pedagogical challenge in a web based learning environment is not to imitate face-to-face interactions, but to explore how different communication tools and media can be used in a pedagogically effective manner [9].

From the perspective of the student as a user, a key factor underpinning student acceptance and use of a VLE appears to be linked to the perceived usefulness of the system and also the perceived ease of use [10]. The 'Technology Acceptance Model (TAM) [11] seeks to explain the causal links between beliefs (the usefulness of a system, ease of use of a system) and users' attitudes, intentions, and the actual usage of the system (See Figure 1).

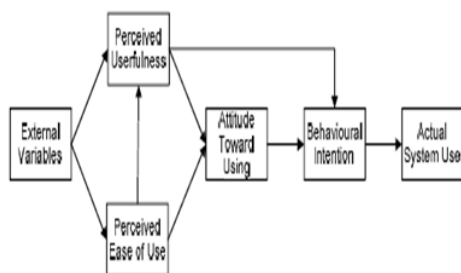


Fig 1: Technology Acceptance Model (TAM) [11]

With greater initiatives aimed at promoting elearning, VLE's are rapidly becoming an integral part of the teaching and learning process. From a system design perspective, it is important to ensure that a VLE is both easy to use and engages and enables the user/learner to interact with educational material, the instructor, and other learners in ways that meaningfully develop students learning as well as providing positive learning experiences.

The purpose of this study was to survey students' opinions on a VLE course (BlackBoard 9.1) developed to support the face to face instruction students were receiving. The rationale for this study was that from a systems design perspective knowing which features should be incorporated and/or avoided in order to facilitate positive learning experiences is important when trying to ensure student user uptake and use

of a VLE. Knowing how students perceive and study in e-based contemporary education and how their academic experiences and achievements can be enhanced may assist academics and teachers in further extending good pedagogic practices beyond their physical classrooms and into virtual ones also.

METHOD

Participants

Students taking a Research Methods module as part of their Masters in Education degree at a Higher Education institution in Dubai participated in this study. The entry requirements for this degree require entrants to have at least two years teaching experience and a first degree from a recognized University. 30 students were registered for this module (12 male, 18 female). All surveyed students were presently studying for a Masters in Education degree. Participants ages ranged from 25-48 years old (\bar{x} =34.5 years old, S,D =3.1 years old, n =30). All participants indicated that they owned some type of web enabled device (computer/laptop/iphone/smartphone) (n =30).

Materials and Procedure

A 22 item questionnaire designed to capture information pertaining to students' opinions of and experiences of VLE use was administered to students taking a Research Methods module at the end of the teaching term. The questionnaire clearly stated to all participants that their participation in the study was voluntary and that they were free to decline the invitation to participate without consequence.

The first part of the questionnaire was designed to collect demographic information regarding gender, age and whether the participant owned a web enabled device. The second part of the questionnaire focused on students' perceptions of their own ICT skills as well as their opinions on and experiences with web based resources and VLE's.

RESULTS

Results revealed that 70% of students felt either 'Confident' or 'Very Confident' in their ICT skills and the remaining 30% felt 'Quite Confident' (See Figure 2).

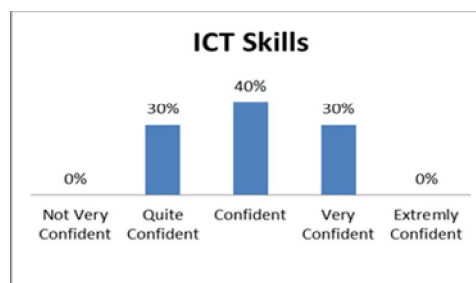


Fig 2: Students perceptions of their own ICT skills

Students' comments regarding their opinions on the perceived value of web based resources for the module also

revealed that these were considered ‘Extremely’ or ‘Very Important’ (See Figure 3).

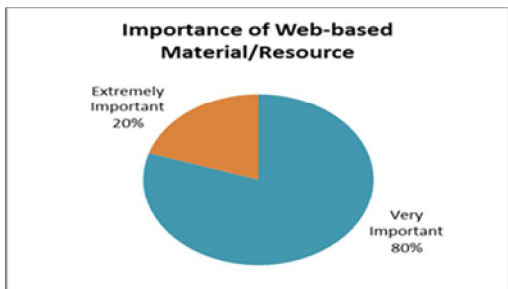


Fig 3: The perceived importance of web based materials and resources

In relation to the types of activities students used the VLE site for during their module, results revealed that viewing and reviewing course material was ranked the highest (35%), closely followed by students use of the Discussion Board/Forum (25%) (See Figure 4).

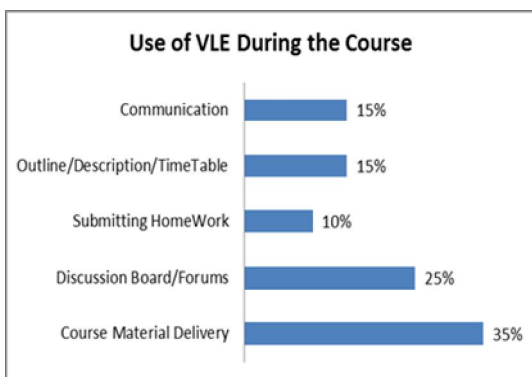


Fig 4: Students use of a VLE during a Research Methods module

Students evaluation of the VLE in terms of its perceived usefulness for learning revealed that all students agreed to varying degrees that the VLE was useful for their learning (See Figure 5).

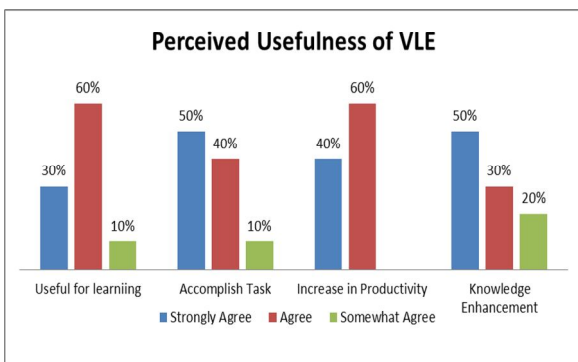


Fig 5: Perceived usefulness of VLE for learning

The most important barrier to acceptance of the technology is typically a user’s attitude [11]. All students in the surveyed sample disagreed that the use of BlackBoard within their course was a bad idea. Students’ responses revealed very positive attitudes to use of the VLE within a learning context. 60% of students agreed with the statement

that working with BlackBoard is fun. Similarly 60% of students indicated that they liked working with the VLE (See Figure 6).

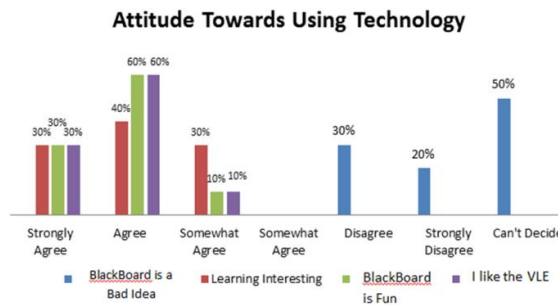


Fig 6: Student attitudes towards using the VLE in a learning context

Students opinions as to how easy they felt it was to use the VLE found that 100% of all surveyed students commented on finding the system ‘easy to use’ (See Figure 7).

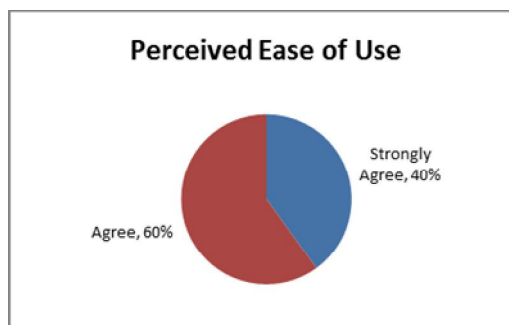


Fig 7: Students opinions on how easy the VLE was to use

The positive attitude toward the use of a VLE was also seen in students’ responses to the question as to whether they would use a VLE in the future if it was provided by another module tutor (See Figure 8).

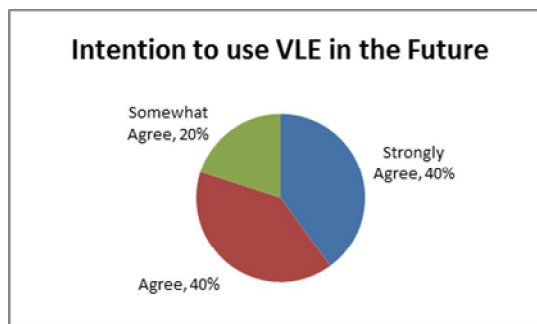


Fig 8: Students opinions on their intention to use VLE’s in the future

Students’ perceptions of an effective learning environment revealed that having clearly stated goals (90%), workload expectation (100%), assessment methods (100%), independence of learning (100%) as well as transferable skills (80%) to be important qualities (See Figure 9).

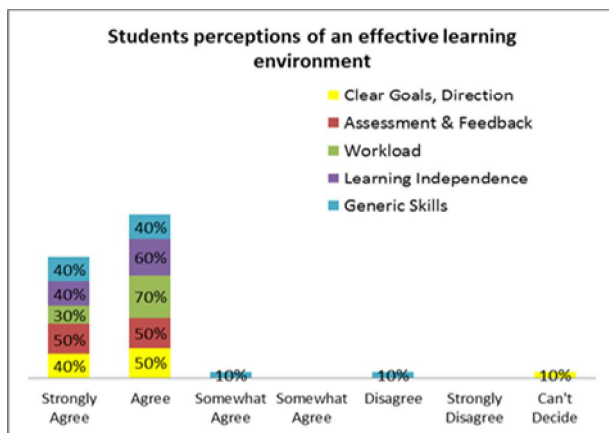


Fig 9: Students perceptions of what makes an effective learning environment

DISCUSSION

The main findings of this research found that surveyed students felt confident with their general ICT skills. With ICT based educational innovation the prior ICT knowledge and skills that users have plays an important role in users subsequent use of technology [11]. It could be assumed that students with good ICT skills are more likely to use well designed web-based learning resources and while the need for training is important, individuals who are confident in their ICT skills may find it easier to pick up and be more receptive to, ICT based applications in Education such as VLE's. Students' responses also revealed that they perceived the VLE as easy to use and would use a VLE in the future if they were provided with one. Individual's perceived ease of use and their intention to use has a direct impact on the actual use of any system [11]. In short, if learners have a positive experience with a VLE they are more likely to use one in the future [10].

Students also reported liking the discussion forum tool on the VLE, this could suggest that far from leading to feelings of isolation [7, 8], the VLE allows students to contribute and in the process create a 'collective intelligence' [1]. It could also be that it increases students motivation by ensuring learning is not contained to classroom contact hours but is regulated and set by the learner [1]. Similarly the autonomy the VLE provides the student appears to be further demonstrated in students responses indicating they like to view and review course material and assessment information. If one of the goals of education is to promote self-directed learners [9], it appears that the provision of a VLE allows students to make decisions about their time management skills (how, when and where they want to study) as well as the amount of communication they wish to engage in with the group and instructor, both instances demonstrable examples of a student-centric approach to teaching. Another noted benefit of the discussion forum is that it may allow students to discuss subject matter, raise questions they may have not felt comfortable addressing in class [12]. Similarly, the online nature of discussion forums may also go some way to eliminate the disparity between students in terms of gender, ethnicity, socio-economic status

which may affect real world classroom interactions [12]. Moreover the discussion forum allows students to not only be consumers of educational content but also allows them to become producers of educational content by sharing their ideas, resources and created artifacts [7].

The perceived value of the collaborative nature of the VLE and its ability to provide feedback is also a theme that students rated highly in the questionnaire. Within a VLE scenario feedback does not always have to be generated by the tutor and can instead be an activity that is encouraged amongst students. Unlike classroom interactions where providing feedback 'on the spot' may be stressful and difficult for students, a VLE in contrast can allow for asynchronous feedback from the tutor and other students and thereby give students the time they need to reflect and compose their own thoughts. Furthermore, unlike classroom interactions, these online interactions via the Discussion Board can be recorded (written/spoken), viewed and reviewed thereby leaving a clear audited learning trail. This transparent audited learning trail can also allow for misconceptions or errors in learning to be dealt with by either the tutor or other students. Adopting a class based learning approach can create a positive relationship between the tutor and students (as well as between students). The tutor may offer initial scaffolding support which gradually declines over time thereby making students more independent and collaborative in their learning [13].

CONCLUSION

The findings of this study highlight that learners have sufficient knowledge i.e. required ICT skills, and access to network enabled devices, as well as a strong and positive attitude to the use of VLE's for educational purposes. Students perceived the VLE to be easy to use and were agreeably receptive towards the idea of using one in the future for another course. The ability of the VLE to allow students to access material as and when students wanted and being able to use the discussion boards were perceived to be extremely valuable for their academic study. Moreover the use of VLE's, if correctly structured, place the student in a position where they gradually move to becoming more self-directed and autonomous in their learning. It can promote 'generic skills' such as time management and 'learning independence' as well as subject specific learning outcomes. The use of technology in a VLE is not only confined to accessing course information but can also be extended to students examining different resources (such as discussion forums, videos, blogs, rss feeds, etc) and creating web based artifact's that are related to their learning such as creating websites, blogs, multimedia presentations, vodcasts/podcasts which can be used as an alternative form of assessment. While the limited number of participants in this study makes it difficult to make any firm generalisations, the generated findings highlight student receptiveness for the use of VLE's within an educational context.

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