A Contextualized Model for Virtual Learning in Higher Institutions

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ABSTRACT
This study aimed at designing a contextualized Virtual Learning model that suits South African institutions of higher learning. The study identified factors necessary for contextualizing VLE to fit the student’s perspective in developing countries. Literature was reviewed to identify the contextualizing factors, based on which a research model was designed and validated using data collected from students at different levels of learning at Tshwane University of Technology, South Africa. The study used quantitative approach and the data was analysed using statistical package called Statistical Package for Social Science (SPSS). Results indicated that, compatibility, complexity, technological factors, organisational and environmental issues as well as mind-set are significant factors for VLEs contextualization. This study contributes theoretically by bridging the gap in literature and apposite model informing the development of VLEs in developing countries. Practically, the findings of this study will be leveraged by institutions of higher learning that want to implement VLEs within their settings.

KEYWORDS
Contextualization, Higher Institution of Learning, South Africa, Virtual Learning Environment, VLE Mode

INTRODUCTION
Information Communication Technology (ICT) has become a ladder in education. The availability of integrated tools that support teaching and learning has brought success in terms of processing students’ information, conducting online classes and enhancing collaboration amongst students and lecturers. This can be implemented through investing money on technology, instead of spending it on building bigger classrooms (Maklumat & Maumalat, 2010; Ghareb & Mohamme, 2016).

According to Staker and Horn (2011), ICT has made it possible for institutions of higher learning to deliver learning content to students without timing and geographical barriers. As a result, institutions of higher learning have managed to offer substantial services to their students by leveraging online learning through Virtual Learning Environments (VLE). Research shows that some students are unable to further their studies because they cannot afford to pay their tuition and other related costs involved in teaching and learning (Wakahiu & Kangethe, 2014). Furthermore, there are many students who can afford the tuition, but are disadvantaged by the distance between their homes and the respective institutions. As Imam and Zadesh (2011) note, these barriers due to geographical and financial obstacles could be eliminated by utilising VLEs.

Nawaz and Kundi (2010) note that Virtual Learning Environments have grown rapidly since their first adoption in the late 1990s, when e-learning in higher education was still in its early stages. E-learning pedagogies can be practised globally at the convenience of students, whereas face-to-face based learning limits learning opportunities for numerous students who are far from institutions of
their choice. VLEs are tools that are introduced to support, deliver and transfer information between lecturers and students (Lefever & Currant, 2010; Solomon et al., 2013; Jain, 2015). VLEs could be a valuable option for distributing materials to students as it is still a common practice in some institutions of higher learning for lecturers to (Meredith, 2011; Tarhini et al., 2015). More still, Fuentes et al. (2011) assert that this kind of situation could be avoided by effectively using VLE, where materials could be saved on VLE platforms where anyone could easily access them at anytime and anywhere. Furthermore, VLEs could be of value where most students are unable to attend classes, and often miss important information such as the dates for assessments, as well dates when assignments and projects are handed out (Benson et al., 2012).

Virtual Learning Environments have been designed to improve students’ experiences, with the aim of facilitating education that is flexible and exciting. The main components of VLEs include: (1) Mapping the curriculum into course topics that can be assessed and recorded; (2) Tracking of students’ activities and achievements presented through VLE; (3) Supporting online learning, including access to learning resources, assessment and guidance; (4) Supporting online lectures; (5) Supporting students’ group through instant chat for significant knowledge (Kok, 2008). VLEs deliver substantial benefits to universities, such as structuring lessons using existing resources, providing convenient self-learning at the student’s convenience, providing fast and cheaper delivery of the materials, making possible educational support through online collaboration and mentoring between lecturers and students, flexibility of learning, access to education as well as monitoring and assessment of student’s performance.

According to Quimno et al. (2013), VLE is the method that delivers better learning pedagogies as well as improve students’ skills in terms of higher standards of learning. However, VLE still needs to be refined – there isn’t enough literature that focuses on the context in which VLE is designed, that is, to suit developing countries. VLE has been designed to suit developed countries that already have sufficient and proper infrastructure, while developing countries lack the necessary infrastructure that enables them to utilise ICT in learning. Many of these benefits have not been realised by most institutions of higher learning in South Africa. Such contextualization is key for cognitively informed VLEs as a sequence of progressive contextualization, and leads to cognition. The gap identified by this study is that there is still lack of clarity on how VLE could be contextualized in the context of South African institutions of higher learning. Thus moving towards cognitively informed VLEs, this study sought to contextualize a virtual learning model for South African institutions of higher learning.

BACKGROUND

A number of challenges regarding the use of VLEs have been identified. According to Phahlane and Kekwaletswe (2012: 109), over 97% of institutions of higher learning in South Africa have adopted VLEs to enable students learning and facilitate teaching. However, they note that many of these VLE tools are under-utilised, and in some instances not used by students. Imam and Zadesh (2011) indicate that few students effectively use VLEs due to their being misaligned with the context. Bentley et al. (2010) add that utilisation in many of institutions of higher learning is hindered by factors such as poor social-technological background, lack of efficient training, and technology anxiety as many of these tools have not been designed to suit the context of the developing world, leading to their under-utilisation by students in those countries (Doherty, 2011).

Quimno et al. (2013) point out that the mind-sets and culture of students in developing countries should be taken into consideration when designing the VLE model so that these students can also enjoy the same benefits that VLE offers to students in developed countries. Thus, taking into account
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