

Examining the Use of Web-Based Reusable Learning Objects by Animal and Veterinary Nursing Students

Emily Chapman-Waterhouse, Harper Adams University, Shropshire, UK

Ayona Silva-Fletcher, Royal Veterinary College, Hatfield, UK

Kim David Whittlestone, Royal Veterinary College, Hatfield, UK

ABSTRACT

This intervention study examined the interaction of animal- and veterinary nursing students with reusable learning objects (RLO) in the context of preparing for summative assessment. Data was collected from 199 undergraduates using quantitative and qualitative methods. Students accessed RLO via personal devices in order to reinforce taught sessions. Interviewees reported that the RLO helped them meet the requirements of the curriculum. Quantitative data supported two valid points; the lack of engagement of students when given a free-choice and reluctance for self-assessment. The practical significance of the qualitative outcomes lies with how first year undergraduates on animal and veterinary nursing-related courses use RLO designed to address equine management and health topics, where the students have mixed equine experience.

KEYWORDS

Equine, Harper Adams University, Learning, Reusable Learning Object, Royal Veterinary College, Voluntary Response Bias, Web

INTRODUCTION

The increased demand from learners in higher education to access study materials at any time, at any location and increasingly on a range of platforms including mobile devices has resulted in considerable development in the usage of Reusable Learning Objects (RLO) across the sector (RLO-CETL, 2005; Jenkinson, 2009; Kurilovas *et al.*, 2011; Windle *et al.*, 2011; Windle *et al.*, 2010). RLO, also known as Shared Content Objects (SCO) are self-contained digital resources such as video, audio, web-pages, documents and graphics which are stored and accessed independently and can be used to support web-based learning. Kay and Knaack (2007) expand on this by saying that RLO are interactive tools which enhance and amplify the cognitive processes of learners. Literature tells us that one purpose of RLO is to enable students to learn new skills (Windle *et al.*, 2010), within a controlled environment, at a range of difficulty levels and with arrangements for regular feedback (AAMC, 2007). Although there have been a number of studies undertaken to examine the role of RLO in higher education, they originate from medicine and health sciences education in the main. Therefore, in the first instance, practice in Veterinary Education must draw from findings in other subject areas.

DOI: 10.4018/IJWLTT.2016070103

Copyright © 2016, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.

A number of researchers have identified that the underpinning rationale for developing RLO is wide ranging, but those studies have emphasized flexibility (Johnson *et al.*, 2013; AAMC, 2007), achievement of higher grades (Windle *et al.*, 2011; Lymn *et al.*, 2008; Trowler, 2010; Bacsich *et al.*, 2011), meeting the needs of professional practice (Windle *et al.*, 2011; Windle *et al.*, 2010; Keefe & Wharrad, 2012; DoH, 2011; Evans, 2013; Blake, 2010) or those of institutions (Johnson *et al.*, 2013; AAMC, 2007; Concannon *et al.*, 2005; Evans, 2013; Kurilovas *et al.*, 2011) as opposed to attempting to impact student learning as a whole. Firstly, to help students achieve higher marks in summative assessment and/or an improved overall outcome (Trowler, 2010), educators typically supplement face to face teaching (Lymn *et al.*, 2008) with additional learning resources. The need to do this may in part be explained by the challenging nature of a subject for some students (Windle *et al.*, 2011; Lymn *et al.*, 2008). It has also been reported that some students feel they lack time to study content heavy modules, so they take a superficial approach to their studies, over which they feel they have limited control (Windle *et al.*, 2011). To be effective, RLO require students to actively engage with the content (Johnson *et al.*, 2013; AAMC, 2007). We know that student engagement *per se* is the extent to which students take an active role in a range of educational activities and that this process is likely to lead to high quality deeper learning (Trowler, 2010). Furthermore, formative assessment as a function within RLO would be advantageous in terms of preparing students for the high stakes summative assessment. RLO have been found to have a significant effect on examination result (Windle *et al.*, 2011; Keefe and Wharrad, 2012), where RLO users have achieved an improved performance in assessment over non-users (Johnson *et al.*, 2013).

Secondly, like other vocational disciplines, medical and veterinary sciences are subject to change in professional practice or policies (Windle *et al.*, 2011; Blake, 2010) with typically profession-driven curricula (Keefe and Wharrad, 2012). Both these issues could be effectively addressed via RLO. It is important to note that high examination results and professional competencies have been considered as separate variables effected by RLO use, although based on the principle of active engagement, one could argue that the engaged students may achieve both high examination results and the required professional competencies following RLO use. Researchers have found a number of other desirable outcomes have been affected by RLO use including learning experience (Blake, 2010), critical thinking, practical competence, skills transferability, cognitive and psychological development, self-esteem, formation of identity, moral and ethical development and student satisfaction (Trowler, 2010; Sandlin *et al.*, 2014). Lastly, development of RLO has in some cases been driven by the need for institutions to save money (Johnson *et al.*, 2013; Kurilovas *et al.*, 2014), be more competitive and attract a wider cross section of the potential student market. In addition, institutions have in some cases needed to reduce staff contact time within a module (Johnson *et al.*, 2013).

The reasons why students choose to use RLO is reported as being affected by a number of factors, one being the student's prior experiences (Bacsich *et al.*, 2011; Kirkwood, 2008; Littlejohn *et al.*, 2010). Use occurs where students have a positive attitude towards computers and they prefer to use technological educational resources (Concannon *et al.*, 2005). Commonalities exist between the reasons students choose to use RLO and how educators should approach the development of such resources. In terms of the practical implications for this study, exploring why and how students use online learning resources is a starting point. Therefore, the present study was designed to answer why and how some students choose to access web-based RLO and others choose not to in relation to preparing for animal and veterinary-science related assessment.

10 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the product's webpage:

www.igi-global.com/article/examining-the-use-of-web-based-reusable-learning-objects-by-animal-and-veterinary-nursing-students/157423?camid=4v1

This title is available in InfoSci-Journals, InfoSci-Journal Disciplines Library Science, Information Studies, and Education, InfoSci-Select, InfoSci-Educational Leadership, Administration, and Technologies eJournal Collection, InfoSci-Networking, Mobile Applications, and Web Technologies eJournal Collection, InfoSci-Select, InfoSci-Select. Recommend this product to your librarian:

www.igi-global.com/e-resources/library-recommendation/?id=2

Related Content

Content Areas: Syllabus, Notes, Lesson Plans, and Documents

Lisa Dawley (2007). *The Tools for Successful Online Teaching* (pp. 24-49).

www.igi-global.com/chapter/content-areas-syllabus-notes-lesson/30411?camid=4v1a

An Empirical Investigation of Students' Acceptance of OLAT as an Open Web-Based Learning System in an Egyptian Vocational Education School
Metwaly Mabed and Thomas Koehler (2012). *International Journal of Web-Based Learning and Teaching Technologies* (pp. 36-53).

www.igi-global.com/article/empirical-investigation-students-acceptance-olat/64651?camid=4v1a

Communication and Gamification in the Web-Based Foreign Language Educational System: Web-Based Foreign Language Educational System

Ilya V. Osipov, Alex A. Volinsky, Evgeny Nikulchev and Anna Y. Prasikova (2016).

International Journal of Web-Based Learning and Teaching Technologies (pp. 22-34).

www.igi-global.com/article/communication-and-gamification-in-the-web-based-foreign-language-educational-system/168545?camid=4v1a

Innovative Leadership Training Using Technology across Borders

Judith Parker (2012). *Technology and Its Impact on Educational Leadership:*

Innovation and Change (pp. 29-39).

www.igi-global.com/chapter/innovative-leadership-training-using-technology/62908?camid=4v1a