CROSSING BOUNDARIES: RE-DESIGNING VIRTUL LEARNING FOR TRANSNATIONAL STUDENTS (SUBMISSION ID 95)

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ABSTRACT

This paper will report findings of an 18 month research project, funded by the Higher Education Academy in the United Kingdom (UK), to identify the differences in experience, expectation and engagement of using technologies, designed for use in Western Universities with post-graduate students in the East. The focus of the research is a Professional Doctorate course delivered by a UK based university and taught in Hong Kong (HK) by UK academic staff over 4 weekends each year, with supervisory support throughout the academic year by tutors based in the UK. The research investigated the use of technologies, including the UK university's Virtual Learning Platform (VLE), to identify whether there is a Western culture bias in the use of the VLE in the delivery of post-graduate courses in the East. While literature is extensive in using technologies in learning and teaching in the West, and in teaching international students, there appears to be a lack of research focused on using new technologies designed in the West used in course delivery in the East. A multi-layered approach to data collection through observation, software analytics, questionnaire and interview has resulted in a higher quality experience for the students, deeper levels of engagement and the introduction of new technologies to support the development of a community of practice encompassing students in HK and the UK. This paper explores challenges faced by staff and students and provides research informed evidence of how Eastern students can be engaged with Western designed technologies.

Keywords: technology; post-graduate students; transnational students.

INTRODUCTION

This paper will report findings from an 18 month research project, 2014-2015, which set out to identify the differences in experience, expectation and engagement of using virtual learning environments (VLE), designed for use in Western Universities with students in the East. The focus of the research was a part-time Professional Doctorate course delivered by a university in the United Kingdom (UK) and taught in Hong Kong (HK) by UK academic staff over 4 weekends, with supervisory support throughout the academic year by tutors based in the UK. The course comprised five taught modules. At the start of the research there were 3 cohorts of students in HK (n=35) with a further cohort starting part-way through the research.

Universities in the UK have been developing collaborations with partners in the East for several decades (Adamson, Nixon and Su, 2012). These often result in academic staff, with limited understanding of Eastern cultures, pedagogies and prior experience of Eastern students in using technologies in learning. This reflected the experience of this research where, as part of the collaborative centre agreement students in HK were expected to engage with the UK university's VLE which is deployed across all courses, and valued by students in the UK.

The aim of the research was to identify whether there is bias and what barriers are created by technologies in the delivery of Western designed courses delivered in the East.

The UK university had a minimum standard for all courses to support the use of the VLE and satisfy student expectations for a high quality flexible online learning experience. This standard included whole course and module learning rooms, course handbook, learning outcomes, lecture resources, reading lists, welcome messages, assessment and feedback plan, timetable information, tutor contact details and a dropbox for assignment submission.

This research focussed on the development of evidence-informed practice to identify what supported Eastern students to engage more effectively with the Western designed VLE to enable a greater use of online learning, a deeper level of learning and a faster pace of progression. As the research has developed various other technologies have been explored to provide additional support for transnational students.

Although focused on post-graduate students it is anticipated that dissemination of this research will help to inform others facing the challenge of using a Western designed VLE with Eastern students.

LITERATURE REVIEW

A literature review revealed no previous research in relation to this area of practice. Due to the transnational nature of the students the literature review was extended across Eastern and Western research.

The literature review identified Hofstede (1985) opened the debate and stimulated dialogue relating to cultural differences and the need for culture to be acknowledged in teaching and learning. Chen et al (1999) recognised the importance of considering culture when developing technological learning environments. Ryan and Carroll (2005) asserted that there is a need to be explicit about purpose and structure of activities and assessment; while this assertion is based on classroom focused research it impacts on online learning. Caruana (2007) identified that an institution which encompasses the ability and knowledge to communicate effectively and efficiently across cultures achieves compatibility allowing the institute to recognise the legitimacy of other cultural practices in one's personal upbringing and their professional lives to date. Armstrong, Armstrong and Barton (2000) suggested that institutions should be concerned with the quality and deliverance to each student irrespective of their personal background and circumstances. Brown (2004) drawing on Gestalt cognitive theory asserted that the personal theories of learning and constructs of international students differs widely from the Western norm, which can hamper learning. Maclean and Ransome (2005) identified studying in a second language,

adjusting to an unfamiliar educational context and perceptions of workload can impede international students.

Wang (2007) claimed that the cultural differences between Asian countries are vast. She identified that Chinese students preferred the self-contained and private learning experience that online work spaces can allow for, enjoyed online resources that are for them only and exhibited lower levels of peer interaction. In contrast, Korean students demonstrated they disliked impersonal experiences online which was against cultural norms for communication. Rees (2010) claimed that students' Asian culture identified authority differences between themselves and their educators whom they viewed as higher level members of society and out of respect, will not question or challenge them which could hinder the interaction and potentially lower the desire to interact with online discussions. Chen, Bennett and Maton (2008), Waters and Leung (2013) and Watkins (2004) further supported the idea of power differences. Whereas, Western learners are encouraged to be independent and question truth.

Online communication in the West depends on written English; Dillon et al (2007) and Thompson and Ku (2005) identified international students who had English as an additional language found it difficult to communicate online in English as their second language which could have impacted on lack of engagement with the VLE. However, most UK universities have an expectation of high levels of English by international and transnational doctoral students which has to meet International English Language Testing System between 6.5 and 7.5 depending on admission requirements.

VLEs have been used in UK schools, colleges and universities since the 1990s providing a 'combination of communications tools and file-sharing applications' (Gillespie et al, 2007, p 3) which are designed as an information space in which interactions occur and students become actors in co-constructing the virtual space (Dillenbourg, Schneider & Synteta, 2002). There are many drivers to using new technologies in Higher Education, for example Laurilland (2008, p 1) states 'never before has there been such a clear link between the needs and requirements of education, and the capability of technology to meet them. It is time we moved education beyond the brink of being transformed, to let it become what it wants to be'. However, there are equally arguments against using new technologies in learning and teaching. For example Kersh, Pachler and Daly (2009, p 2) state that 'digital technologies alone do not facilitate learning'. While longitudinal research by Palmer and Holt (2012) indicated that students need to see a value in accessing VLEs.

The increased use of online and blended learning in UK universities is resulting in emerging pedagogy with an increased use of technologies such as blogs, wikis, twitter, and eportfolios (Boulton and Hramiak in Hardy and Clughen, 2012; Palmer and Holt, 2012) with an increasing expectation that both staff and students have good levels of digital literacy. Petre, Minocha and Barroca (2014) identified that establishing a virtual community for doctoral students can engage them and establish a research community which will help distant learners to engage. This is a different perspective to that in HK evidenced by a survey of 118 secondary schools in HK indicating relatively low use of use of technology in learning (Centre for Information Technology in Education, 2015, p3). Dillon, Wang and Tearle (2007) also found a disconnection for doctoral students with different cultural backgrounds when using VLEs.

The literature survey therefore identified cultural differences between western and eastern countries in terms of learning styles, stereotypical characteristics, motivation to study, pedagogy and experience of using technologies in learning. Challenges have been identified such as students working in a second language, lack of engagement in online activities, and challenges for the host university in terms of ensuring a high quality learning environment.

METHODS

This was an evaluative longitudinal research project over 18 months. The research project was framed by action research (Reason and Bradbury, 2006; McNiff and Whitehead, 2006).

Funding for this research by the Higher Education Academy in the UK enabled the appointment of three student researchers, all in the second year of undergraduate (level 1) study. These students, working part-time as researchers, developed the initial literature review and identified aspects to inform data collection.

Data was collected from:

- VLE analytics to identify baseline usage by HK students. This was compared with usage by UK students in the similar cohorts, that is, length of time on the same course;
- HK students via an online survey to establish their prior experience of using a VLE in learning;
- a questionnaire, informed by baseline data collection and the literature review, was completed by the HK students (70% response rate);
- focus group interviews to gather data related to the impact of changes introduced to the VLE and the introduction of new technologies were carried out with the HK students (50% respondents);
- a questionnaire with a new cohort following changes to the induction;
- a questionnaire was completed by UK students studying at doctoral level;
- desk-based research was carried out to identify similarities and differences, related to the research, on HK university websites. This focussed on images, symbols, colour and layout (Chen, et al 1999), and translation buttons.

The age of the student respondents in HK were 25 to 59; 17 male and 18 female students were involved in the research.

FINDINGS AND DISCUSSION

The initial baseline data indicated that only 26% of the HK students had accessed the VLE, varying from one to 17 accesses each. The length of time spent in the VLE ranged from 1 minute to 9 hours.

Prior experience and preferred method of learning and resources for learning

Analysis of data collected from the baseline online survey completed by HK students indicated that assumptions of the levels of technological expertise by the course team had been aligned with the experiences of UK students. Findings from this data indicated that

lack of prior experience of using a VLE together with no planned opportunity to engage with the VLE during induction and working in a second language, had resulted in a lack of engagement from the outset with the VLE. This data further indicated:

- lack of understanding of how to use the VLE;
- lack of understanding of the purpose of the VLE;
- difficulties accessing the VLE due to the University's requirement to change their password every 90 days – failure to do this resulted in no access to the VLE;
- lack of signposting to technical support compounded by an 8 hour time difference.

Data collected from questionnaires, focus groups and interviews indicated that most students had previously been taught face to face rather than online; this was identified by 75% as their preferred method of learning with over half indicating visual, lectures and discussion as their prior experience of being taught.

The data indicated that in terms of additional resources 88% used a combination of online books, journals, articles, and textbooks; all of these were mentioned by each participant in some combination. Other resources students had prior experience of in learning were mainly websites (78%), with less than 5% having prior experience of a wiki and blog. The frequency of the use of these additional resources varied greatly but did not support Chen, Bennett and Maton's (2008) findings indicating less willingness to utilise the Internet to search for resources.

Virtual Learning Environment

Data collected from focus group interviews identified limited time to access the VLE by those students working full-time during the course; compounded with slow wifi and reduced bandwidth, a VLE described by one student as 'clunky with several clicks required to access information' (student B6) and all of the course resources in one long list resulting in slow loading, 'too much scrolling' (student B15). To respond to this data new VLE learning rooms were created reflecting the structure of the course, ie 5 separate learning rooms. Within each learning room a private space was created for the HK students' resources reflecting Wang's (2007) recognition that Eastern students prefer a private space; this was seen as a significant development in focus group interviews. Additional materials were provided in these learning rooms such as module specific resource lists and vodcasts on how to use library resources. A widget was created in the landing page of each learning room, which took the HK students directly to this private space, responding to the identified reduced bandwidth. Data indicated this improved engagement, engendered a greater sense of belonging to the UK university and repositioned the identities of the HK students. Data indicated that this multi-layered approach proved to be a more positive experience for the HK students.

Differences between western and eastern students identified by Chen et al (1999) were in use of images, symbols, colour and layout. While an initial focus for the research responses to questionnaires indicated that these were not of significance to the HK students. However, four students indicated that the VLE font was small when working in a second language; in response this a vodcast was added to the VLE resources demonstrating how to increase font size.

Dillon et al (2007) and Thompson and Ku (2005) had identified communicating online may be more difficult for students working in an additional language. Desk based research revealed that most Eastern university internet sites had translation buttons; 42% of our students thought this would be helpful, particularly in terms of speeding up accessing information and would support them progressing at a faster pace. Discussion with the VLE provider identified that this would be prohibitively expensive but worthy of consideration for others and potential future development.

Induction

There was an assumption by the course team that post-graduate students, having completed undergraduate and Masters (Level 2) study would have prior experience of VLEs in learning. Online questionnaire data identified the HK students had little if any prior experience of a VLE. This resulted in significant developments to the induction and a quick reference guide for these part-time students who do not access the VLE on a daily basis. VLE analytics evidenced an increased usage of the VLE by the HK students as a result of these developments; students reported increased confidence and engagement.

The new induction has been used with a new cohort resulting in a higher level of engagement and a greater sense of confidence in accessing the VLE. Various activities, using Salmon's (2000) 5-step model of engaging students with technologies, delivered through the VLE between taught weekends in HK, designed to engender collaboration and co-construction of knowledge, have also impacted on engaging the students.

Technical challenges

Seventy two percent of the respondents had experienced technical problems with 80% of the problems related to accessing the VLE beyond bandwidth problems. In response a blog was created which is discussed later in this paper. The introduction of a timed email every 85 days to ensure students had adequate notice to change their password (university requirement every 90 days) resulted in all students having sustained access to the VLE. A single point of contact for technical problems has resulted in faster and high quality support for these transnational students.

Additional technologies:

The data collection and literature, such as Petre, Minocha and Barroca (2014) suggested additional technologies may support the students further, resulting in increased progression and a deeper level of learning. Investigation into various technologies and data collected from students both in HK and the UK resulted in the creation of a wiki and blog on externally (to the university) hosted websites. Both technologies are accessible via mobile phones, the most used technology by the HK students.

Wiki

Data indicated the students wanted a virtual space to develop a community of practice (Lave & Wenger, 1991) to work collaboratively co-constructing knowledge. This does not reflect Wang's (2007) earlier findings that Eastern students exhibited lower levels of peer interaction or the findings of Watkins (2004) Chen, Bennett and Maton (2008), and Rees (2010).

A wiki was set up and tested in both the UK and HK. This provided different learning spaces hyperlinked to a main page, each pre-populated with readings, sufficient to scaffold the students in working collaboratively to co-construct new knowledge, share readings and support each other. As students attended taught workshops they have been introduced to the wiki and are increasingly engaging with the wiki. The research data indicates an emerging community of practice, a deeper level of learning, a reduced sense of marginalisation and increased empowerment by the HK students (Caruana, 2007).

Blog

The first blog developed for the HK students proved unsuccessful, requiring students to register (free of charge) which the students in HK were not willing to do. A second blog, requiring no pre-registration, was populated with vodcasts to provide solutions to common technical difficulties, such as explaining how to access the VLE if students were locked out, and with a direct link to the UK technical support team. This has proven to be a helpful solution, described as a 'lifeboat' by students and impacting positively on their progression.

CONCLUSION

This research set out to answer questions related to potential Western culture bias in the use of Western designed VLEs and to identify appropriate technologies to support the learning of part-time transnational doctoral level students. The research has provided an evidence base to support the need to understand cultural and pedagogical differences, visual perception of meaning and the need to identify the prior experience of transnational students with technologies in learning, while recognising potential limitations in transnational student's technological infrastructure. Wifi speed and bandwidth needs to be appropriate for technologies being used in transnational teaching and the need for adaptive alternatives recognised.

The research has highlighted the importance of signposting transnational students to technical support, ensuring a comprehensive induction which includes opportunity to access and use course technologies in a supportive and assistive environment. Salmon's five step model (2000) provided a framework for introducing the students to the VLE and developing their engagement. Where co-construction of knowledge is a course expectation, affordances of a range of technologies need to be explored to provide the most appropriate platform for the educational context.

Thus the research evidenced Western culture bias in using Western designed technologies in the delivery of post-graduate courses in the East which was resolved by developing flexible pedagogies and a careful exploration of cultural differences in learning.

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