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Keywords
culture, shock, multicultural, learning, authentic, dealing, e

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Dealing with “learning culture shock” in multicultural authentic e-learning

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Abstract: With international e-learning becoming increasingly widespread, questions of cultural considerations and accommodating for learners with different cultural backgrounds have become ever more important. This paper discusses the cultural aspects in a fully online, authentic e-learning based professional development program for international teaching faculty. Instead of attempting to customize the learning environment for individual learners, the aim has been to develop an environment that promotes cultural sensitivity, appreciation for diversity and dialogue, based on the principles of authentic e-learning. As this approach differs from traditional teaching and learning methods, it may feel unfamiliar for the students. Therefore the paper concentrates especially on the concept of learning culture shock and examines the factors that may cause it, or on the other hand, help learners deal with it. It also discusses the suitability of authentic e-learning as the design framework for multicultural contexts.

Introduction

As e-learning has become increasingly common, new doors have opened for accessibility and virtual mobility of students. During the recent years, educational phenomena such as MOOCs (massive open online courses) have led into situations where the backgrounds of the people learning together are ever more heterogenous. Questions of cultural considerations and how to accommodate learners from different backgrounds have become more important than ever, but there is still very limited understanding of how this could best be done. As Wang & Reeves (2007) point out, it is surprising how little published literature on the cultural aspects of online learning and teaching there is. Wang & Reeves suggest that this could be partly because of difficulties related to finding appropriate methodologies and resources for this type of research, partly because of the vagueness and differing definitions of the concept of culture. (Wang & Reeves, 2007).

When thinking of multicultural learning groups and the impact of cultural aspects in learning, we often tend to associate this with students being from different parts of the world, representing different ethnic backgrounds, religions and languages. While all these are important aspects to consider, it can also be argued that there are diverse learning cultures that are affected by factors such as academic tradition, field of study and teaching methods. Moreover, the transition from classroom education to online learning can also be seen as a major cultural shift.

This paper examines the cultural aspects in a fully online study program that had participants with very diverse multicultural and multidisciplinary backgrounds. The case presented here is an online postgraduate certificate program for teaching in higher education that was developed at the School of Vocational Teacher Education at Tampere University of Applied Sciences (TAMK) and implemented in a higher education institution in the United Arab Emirates. The learning design of the program was informed by the elements of authentic e-learning as presented by Herrington, Reeves & Oliver (2010), and it was developed with the help of an iterative educational design research process. This study is a part of this process.

A survey conducted after the first module of the program suggested that while the authentic e-learning design promotes activities that can lead to increased cultural understanding and collaboration, the pedagogical approach is quite different from many traditional models of teaching and learning and may therefore at the beginning cause “a learning culture shock” for learners who are accustomed to a different learning culture. (Teräs, Leppisaari, Teräs & Herrington, 2012). This paper takes a closer look into the concept of learning culture shock. I use data from three surveys that were conducted after each of the three module of the program.
to examine the factors that may cause, or on the other hand, help learners deal with a learning culture shock. I also discuss the suitability of authentic e-learning as the design framework for multicultural contexts.

The Study

This study is a part of a wider scale educational design research process, motivated by the need to develop a new type of professional development for teaching faculty in the middle of an ongoing paradigm shift towards a networked knowledge society.

Introducing the case

The case being studied is “21st Century Educators”, a fully online postgraduate certificate program for teaching in higher education that was designed at Tampere University of Applied Sciences (TAMK) in Finland and implemented at Higher Colleges of Technology in the United Arab Emirates during September 2011 - February 2013. The program was divided into three modules, each lasting for one semester. The learning environment used consisted of a learning management system (Blackboard Vista in Module 1, Moodle in Modules 2 and 3), each participant’s personal blog, Google Docs (Drive), Google Hangouts, Google+, and various technologies of the participants’ own choice. The program was coordinated at TAMK, but local teachers were trained to facilitate the online collaboration and function as team leaders.

In the case of 21st Century Educators, one of the challenges that could not be easily addressed with the help earlier research was the exceptional diversity of the participants and the implications the multicultural aspect might have in an authentic e-learning based learning process. The participants to the program had moved to work in the UAE from all corners of Earth: Middle East, Africa, Asia, Europe, Australia, South America and North America. In addition to the ethnic and national diversity, they represented different fields of study, different genders and different age groups. It was also fair to assume that the majority of the participants would not have had previous experience with authentic e-learning. This was one of the reasons why a decision was made to use an iterative process of educational design research in the development of the program.

The educational design research process

Educational design research has often been regarded as a very useful approach especially when there is a complex educational problem that needs to be addressed in a way that has a potential for a high level of practical impact and relevance (cf. Plomp, 2007; Anderson & Shattuck, 2012). Typically, in educational design research, an educational intervention is designed, evaluated and refined iteratively in the actual setting where it is intended to be used. It thus provides information on how the intervention works in a complex real life context. (McKenney & Reeves, 2012, Collins, Joseph & Bielaczyc, 2004). In addition to the practice-driven goal of designing a useful intervention, educational design research also has the theoretical goal of producing knowledge of whether and why a given intervention works in a given context and, based on this knowledge, produce design principles for effective and workable interventions of the same kind. (McKenney & Reeves, 2012, Plomp, 2007).

The research process started in January 2011 with the development of the prototype intervention, which went live in September 2011 after initial testing and evaluation. The first evaluation survey was conducted in January-February 2012 after the first module. The findings informed a redesign for the second module, followed by the second evaluation survey in September 2012. The process was repeated for the third module, which in turn was evaluated in February 2013 at the end of the program. The data from the surveys will be complemented by interviews conducted 4-5 months after the end of the program. These data are currently being analyzed. This study is based on qualitative data collected with the three surveys. The surveys were designed within an online survey creation tool (SurveyMonkey). In all three cases the data were analyzed with the help of a framework based on the 9 elements of authentic e-learning (Herrington, Reeves & Oliver 2010). The responses were first categorized according to the elements, followed by a more detailed thematization. For this paper, the data was examined in the light of a literature review on the concepts of culture, learning and culture shock.
Culture and learning

Culture as a concept is difficult, if not impossible, to define comprehensively. It can be approached from countless perspectives, depending on the interests and experiences of the speaker. The definition of Danesi and Perron (1999) is an especially helpful one for the purposes of this study. They refer to human culture as the “way of life based on a signifying order developed originally in a tribal context that is passed along through the signifying order from one generation to the next” (Danesi & Perron, 1999 p. 23). In other words, it is a way of doing and seeing things which is based on a given system, and it is passed along to others through that very system.

Cultures exist on various levels and they can overlap, influence each other and evolve. When speaking about “culture”, people often refer to ethnicity or nationality, but there are also distinct organizational cultures, professional cultures, and countless sub-cultures. Thomas (2005) points out that the notion of cultural diversity does not only encompass cultural traditions, language, religion and established social mores, but also the many cultures and sub-cultures of postmodernity. Moreover, Joy and Kolb (2009) have found that the scientific background of academics have a more significant impact on learning styles than cultural backgrounds. Also Lindblom-Ylanne, Trigwell, Nevgi and Ashwin (2006) point out a correlation between teacher’s discipline and her or his teaching methods: teachers of medicine, engineering and physical sciences have a tendency towards teacher-centric approaches whereas teachers of social sciences and humanities prefer student-centred methods.

In a large, international student group, countless cultural cocktails are thus bound to come together - especially at the time of globalization when people, ideas and values are increasingly mobile and evolving. A student who is of Finnish origin, lives in Japan, has an engineering degree, works in a small software startup and is a heavy metal enthusiast will be at the same time different and similar to her fellow student who is Indigenous Australian, has a creative arts background, works as a tutor at a large university and is also a heavy metal enthusiast. All of these variables may have an effect on how these two students learn. The question is, what are the implications of different possible cultural backgrounds of the learners on how the online course should be implemented.

Learning cultures

Given the multifaceted and evolving nature of “culture”, how should it - or how could it even - be taken into account in education? The issue has been perceived from different angles, with regard to for example learning styles, teacher education and inclusion. Several studies have found a relationship between cultural factors and learning style preferences. For example, Boland, Sugahara, Opdecam and Everaert (2011) compared the learning style preferences of Australian, Japanese and Belgian students and found clear differences between the students of the three nationalities. The Japanese students preferred learning by watching, whereas the Australians were keen on learning by doing. Also Joy and Kolb (2009) find it evident that culture has an impact on learning styles. Thomas (2005) argues that teacher education and training should be developed to promote cultural sensitivity in order to make education provision more relevant. Morse (2003) sees a link between culture, communication and learning behavior, and believes that cultural considerations will play an increasingly significant role in online education.

Taking cultural aspect into account in e-learning design should not necessarily mean trying to make the learning environment look familiar to each and every student. Given the amazing diversity an online study group could potentially have, together with the unpredictability involved, as one can never know in advance what cultures will be represented in an international e-learning program, this would not even be possible. In the globalizing 21st century environment, a learning design that promotes cultural understanding and dialogue instead of siloing learners into their own customized but isolated learning realities seems a much more useful approach. Therefore, instead of attempting to customize learning tasks and working methods for different learning styles (for example the learning by watching versus by doing, or learning individually versus learning collaboratively), a different approach was chosen for the 21st Century Educators. Schein (1992) believes that the most useful way to perceive culture is to see it as the “accumulated, shared learning of a given group, covering behavioral, cognitive and emotional elements of the group members’ total psychological functioning” (Schein, 1992 p. 10). This view as a starting point, the aim was to build an authentic e-learning environment that would allow for multiple perspectives and dialogue. However, bearing in mind that the authentic e-learning approach differed from many more traditional ways of teaching and learning (even online), it was probable that it would not all be “moonlight and roses”.
Culture shock

The concept of culture shock was first introduced by the Finnish-Canadian anthropologist Kalervo Oberg (1960). He associated culture shock with the loss of familiar signs and symbols of social interaction and the noxious feeling of not knowing what is expected and how to behave. Although the concept of culture shock was first defined in the context of physical relocation and exposure to new ethnic and national cultures, it can be suggested, based on the findings of this series of studies, that it is also applicable in learning cultures.

Ward, Bochner & Furnham (2001) expand the perception of culture shock from a passive reaction to circumstances to ways of actively dealing with change. They distinguish three components in the process of culture shock: Affect, Behavior and Cognition - in other words, how people feel, act and think in the situation (Ward et al. 2001). This categorization also corresponds with the participatory approach to learning cultures introduced by Hodkinson, Biesta & James (2007). They point out that participation “entails doing and feeling, as well as thinking” (Hodkinson et al. 2007 p. 417). I find this model useful in perceiving cultural aspects of learning. According to Ward et al. (2001), the affection component is very close to Oberg’s original definition of culture shock and the confusion, suspicion and anxiety caused by being faced with the unfamiliar. The behavioral component is associated with culture learning and the lack of culturally relevant social and communication skills, which may lead to misunderstanding and conflicts. Finally, the cognitive component is related to shared meaning, and it affects the way people see each other and themselves. The authors also introduce ways of dealing with these three elements of culture shock. These will be discussed further in the section “Analysing the data”.

It must be noted that the mere change from classroom based to fully online learning is already a cultural shift for learners. Develotte (2009) studied the emerging online learner identity of a group of students who were new to e-learning. She points out that the move to an online setting causes a break with habits and behaviours rooted in a previous and different context. I would like to go a step further and suggest that now, as online learning has become increasingly common, there are also different online learning cultures that the students might be accustomed to and use as point of reference when attending an authentic e-learning based course. The course that Develotte used as a case seems to be a rather typical example of a “traditional” e-learning design. She describes the course being structured into folders for activities, student submissions and forum (Develotte 2009, p. 73). This model has its familiar counterpart in traditional face-to-face education which relies on lectures, tutorials and assessment tasks. Authentic e-learning differs from this model in a profound way. Therefore it can be potentially ignite a twofold culture shock: not only does the transition take place from face-to-face to online, but also to an entirely different learning paradigm. The following section takes a deeper look at the elements of authentic e-learning and introduces some of the related observations from our previous studies.

Authentic e-learning for multicultural student groups

The essential difference between authentic e-learning and the more traditional approaches to online education (as well as to any type of education) is the principle that knowledge should be socially and physically contextualized in order for learning to be truly meaningful. The context does not necessarily have to be the actual work setting. What is important, though, is that the learning environment provides the learners with the opportunity to engage in cognitive processes that are similar to the actual context where the knowledge will be used. This is, however, not happening very widely in higher education - be it face-to-face or online. Instead, many of the learning practices and activities that students undertake are unrelated to the work performed by professional practitioners and experts in the post-university world. (Herrington, Reeves & Oliver 2010).

Herrington, Reeves & Oliver (2010) introduce nine principles of authentic e-learning. These principles informed the learning design of the 21st Century Educators program and they have also been used to create an analysis matrix for the evaluation of the program (see Teräs, Curcher & Leikomaa, 2012 and Teräs, Teräs & Herrington, 2012 for further details). Table 1 below illustrates the nine principles of authentic e-learning and their implications on the learning design.
| Authentic context | The learning environment represents the kind of setting where the knowledge will ultimately be used.  
|                  | The learning design is non-linear and it preserves the complexity of the real-life setting.  
|                  | The pathway through the learning environment is flexible. |
| Authentic tasks  | The activities have strong real life relevance.  
|                  | There are ill-defined, overarching complex problems instead of multiple small tasks.  
|                  | The students will spend a sustained period of time for investigation.  
|                  | The students have the opportunity to evaluate the relevance of sources and make decisions. |
| Access to expert performances | Students have access to expert thinking and modelling of processes.  
|                  | Students have access to other learners with various levels of expertise.  
|                  | Students have the opportunity to share narratives and stories about professional practice. |
| Multiple perspectives | Students have the opportunity to explore issues from different points of view.  
|                  | There are multiple pathways through the learning resources and materials.  
|                  | Various sources of information are in use, instead of for example a single textbook. |
| Collaborative construction of knowledge | Tasks are completed in pairs and groups rather than individually.  
|                  | The nature of the tasks direct towards group collaboration instead of simple cooperation.  
|                  | The group effort is assessed, not only the individual performance. |
| Reflection       | Students are required to make decisions about how to complete the tasks.  
|                  | Students work in groups that enable discussion and social reflection.  
|                  | Nonlinear organization of materials allows students to return to resources and act upon reflection.  
|                  | Students can compare their thoughts and ideas to experts, teachers and other learners. |
Articulation & Scaffolding and coaching & Authentic assessment

| Articulation | The tasks require students to discuss and articulate their growing understanding. |
| | Students are required to publicly present and defend arguments |
| Scaffolding and coaching | There is collaborative learning where learners are able to assist with coaching. |
| | Coaching and scaffolding are available when needed. |
| Authentic assessment | Assessment is seamlessly integrated with the activity. |
| | There are multiple indicators of learning. |
| | Significant student time and effort is spent in collaboration with others. |

Table 1: Elements of authentic e-learning. (Based on Herrington, Reeves & Oliver, 2010).

At an earlier stage of the research process, a comparative analysis was conducted based on data from two different authentic e-learning based programs. Based on the data it could be seen that authentic e-learning as a pedagogical approach was new and very different to what the participants were used to. The way some of these nine elements was implemented in both programs seemed to cause duibity and even anxiety for some learners - a “learning culture shock”, whereas some other elements actually promoted cultural sensitivity, appreciation of diversity and dialogue between people with different backgrounds. The most important sources of uncertainty and even stress were the ill-defined and complex nature of authentic tasks, issues regarding communication and group dynamics, and expectations and experiences with scaffolding and coaching. (Teräs, Leppisaari, Teräs & Herrington, 2012).

Based on these findings, significant redesign took place prior to the second module of the program, and a new survey was conducted after the module to evaluate the success of the modifications (Teräs & Herrington 2013). The process was repeated for module 3. In the following section I intend to dig deeper to the data collected in each stage, in order to gain better understanding of learning culture shock as a phenomenon.

Analyzing the data

Oberg (1960) identified symptoms and phases of a culture shock that may occur for example when moving to a new country. Interestingly, similarities can be found between these phases and the experiences of the participants in the 21st Century Educators program. Authentic tasks and the collaborative nature of the studies represented an unfamiliar territory for those who were accustomed to the learning methods characterized by academic activities, multiple small assessment tasks, clearly defined learning paths, direct instruction and individual or simple cooperation based studying. In addition to the pedagogical approach, the learners had to adopt new technologies. The participants’ comments reflect anxiety that corresponds with Oberg’s model: many felt that the instructions were not clear and they were uncertain of what was expected from them. The familiar signs and symbols were not there, and some participants undoubtedly felt like “fish out of water”, as Oberg describes the rejection stage of culture shock. It is noteworthy that this does not only occur with individuals who are resistant to change. According to Oberg, it does not matter how open-minded of full of good will one is; when the familiar cues are absent, what follows is a feeling of frustration and anxiety. (Oberg, 1960 p. 177-178). Oberg also points out that the individual might have the feeling that the people around him do not understand the great concerns, which makes the situation worse. Therefore it is essential that there is timely and sufficient scaffolding and coaching available, and that the facilitators are aware of and appreciate the concerns of the learner.

In Oberg’s model, the stage of rejection is overcome and followed by increasing openness to the new
cultural environment. It is important to notice that this happens when the individual gets more knowledge of the language and learns to get around by herself in the new environment. Reflection and peer support are tools that help the individual reach this stage. (Oberg, 1960, Ward, 2001). Evidence of this stage could also be found in the data. Many participants mention how the help from facilitators and sharing the concerns with other learners through online discussions was very much valued.

The final stage in Oberg’s model brings the individual to adjustment and acceptance. In the course of time, the cues of the new culture become familiar, and the individual accepts these as another way of living. (Oberg, 1960 p. 178). Especially the data collected in the final survey reveals plenty of evidence of learners having reached this stage. The elements that first caused anxiety had now turned into valued aspects of the program for many. The most rewarding learning experiences included aspect such as collaboration, working in team projects, learner autonomy, reflection and multiple perspectives - the very things that were first found unfamiliar and hard.

It is important to stress out here that these stages happened to different participants at different times during the program. Some seemed to have reached the second stage already during the first module, whereas for others it was the further development informed by the survey findings that helped them move forward in their learning journey. Whereas the majority of the learners went through a “learning culture shock”, for some it was harder than for others. Also Oberg (1960) points out that individuals differ in the way and the degree in which culture shocks affects them. However, it is worth considering that there is such a phenomenon as a learning culture shock and that it can be taken into account in the learning design.

Although authentic e-learning can be a new and unfamiliar way of studying for many, it should not be avoided as a pedagogical approach, on the contrary. The findings from the data also clearly point out that authentic e-learning can be a very powerful way of enhancing cultural sensitivity, appreciation of diversity and dialogue. The collaborative nature of the studies, which at the beginning was a major source of frustration, turned out to be extremely valued by the learners. Indeed, many wished in the end that there would have been even more collaboration. Moreover, the ongoing reflection through blogs, the need to articulate one’s learning process, and the way the program encouraged multiple perspectives of the learners with diverse backgrounds were among the most appreciated features. The iterative process of educational design research has revealed that the initial stage of anxiety is very much worth the effort, and if appropriately dealt with, it has the potential to lead to the development of multicultural social competence, self-efficacy and other skills that are highly useful in the 21st century working environment. Moreover, as Trigwell, Prosser and Ginn (2005) argue, a conceptual change driven, student-centered teaching strategy leads to deeper learning than one based on knowledge transfer.

It can also be argued that authentic e-learning as an approach has the remedy to the learning culture shock “built in”. Ward et al. (2001) suggest that successful remedial actions to reduce the distress in culture shock include both personal resources, such as self-efficacy, and interpersonal assets, such as social support. Both of these are highly applicable to an online learning setting, and they resonate well with the authentic e-learning approach. Self-efficacy refers to the ability of a person to reflect, control and observe her or his cognitive, affective and conative behavior in order to reach a goal (Ruohotie, 1999). Again, parallels can be drawn with the earlier discussion of “thinking, feeling and acting” (Ward et al., 2001; Hodkinson et al. 2007). If we see self-efficacy as a tool that may assist in dealing with a culture shock and thus promote successful multicultural learning, it is crucial to find effective ways to support the development of the self-efficacy skills of the learners. The development of self-efficacy is dependent on the affordances and limitations of the learning environment. High degree of teacher control, linear learning paths, predigested content and a focus on completing assignments are examples of a learning culture that does not support self-efficacy skills particularly well. Instead, according to Ruohotie, the development of these skills can be enhanced by learning paths that encourage learner autonomy, awareness of and ability to employ different learning strategies, the development of metacognitive skills and frequent opportunities for reflection. (Ruohotie, 1999 pp.102-103). All these aspects are also included in the philosophy of authentic e-learning.

Conclusions

In the globalizing world, the importance of multicultural competence in all fields is ever increasing. The impact of globalization and technological development has various implications for education, perhaps one of the most evident impacts being the increased accessibility of education through internationally available online
programs. With the current trend of massive open online education, this is an exponentially growing phenomenon. Therefore, taking cultural aspects into consideration in e-learning design and implementation is becoming ever more crucial.

In order to truly promote cultural sensitivity and appreciation of diversity, the online learning environment should not leave individual students in isolation with content customized to meet the learning styles prominent in their home culture. This approach would not even be feasible in many cases, given the great diversity and evolving nature of the concept of culture. Instead, the learning environment should offer plenty of opportunity for dialogue and encourage collaboration and multiple perspectives. Based on the findings of this research process, authentic e-learning seems to provide a promising pedagogical model for such learning design.

Authentic e-learning is in many ways different from more traditional learning and teaching methods and at the beginning learners may respond to it in ways that greatly resemble what is often referred to as a culture shock. However, scaffolding and coaching, reflection and peer support have proven to be effective ways to facilitate the learners’ journey through the learning culture shock. Although students may experience anxiety and frustration at the first stage of the learning culture shock, the authentic e-learning approach should not be abandoned. As the iterative educational design research process has revealed, it has great potential to support the development of multicultural social competence, self-efficacy and other highly useful 21st century working skills. The long-span and iterative nature of the educational design research has allowed for rapid prototyping and responsiveness to learner feedback, thus enabling informed redesign and immediate improvements. This has made it possible to better support the learners and ensure that the remedies for learning culture shock are in place. Based on the findings of the final evaluation, this has led to appreciation of diversity, collaboration and reflective practice.

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