

EXPERIENTIAL LEARNING AND THE VIRTUAL INSTRUCTOR: AN EMOTIONAL JOURNEY ACROSS CONNECTED WORLDS.

Key words: experiential learning, emotions, virtual learning, instructors.

Grewal, S.K.¹ and Panteli, N. University of Bath, UK

s.k.grewal@bath.ac.uk; n.panteli@bath.ac.uk

ABSTRACT

In this paper, we draw from management and educational literature to discuss the emotional experience of instructors when designing and implementing virtual learning activities. Using models of experiential learning (Kolb, 1984 and Vince, 1998) we analyse how the emotional experience of an instructor when designing and implementing a virtual pedagogic activity can lead to its redesign. From our findings we identify how the dynamics of the instructor's emotional experience develop across the pre-implementation stage, the implementation stage and the post-implementation stage of a virtual learning activity. Our findings reveal that instructors of innovative teaching practices start with a positive emotion; however as the instructor progresses through the different stages of the activity, the emotions of the instructor change. We found that an intense 'anxiety based' emotional experience can lead to a heightened sense of negativity towards a virtual learning activity, often resulting in feelings of abandonment. Yet these same negative emotions can transfer into positive emotions leading towards a reinvestment in the virtual task. This study presents the findings from three different student based virtual projects that took place during the period of 2003-2008 to form the basis of our analysis.

INTRODUCTION

The use of virtual technologies to enhance teaching and learning practice at institutions of higher education has gained increasing momentum over the last few years. Undoubtedly, technological advancements and a shift in the composite of students and the dynamic marketplace have all contributed towards the increasing use of virtual technologies as pedagogical tools. Indeed, advancements in information and communication technologies have contributed to the growth and popularity of technology-mediated learning environments (Huynh et al., 2003). Whilst, in the past it was commonplace for bespoke virtual systems to be designed to fit specific course requirements, virtual technologies today are being designed with multifunctional capabilities. This increases the scope of functional uses and allows the virtual technologies to be used in innovative ways across a number of industries, including higher education. Online collaborative tools such as Blackboard, Moodle and WebCT have enabled the design of numerous virtual student-based projects often at a global scale, whilst the emergence of web 2.0 technologies have provided opportunities for further innovations in teaching. A good example of this is Second Life, which although primarily designed for social use, offers tremendous scope to enhance collaborative and experiential learning opportunities.

¹ Grewal, S.K. School of Management, University of Bath, Bath, BA2 7AY, 01225-383499,
s.k.grewal@bath.ac.uk

Many university instructors now engage with their students through diverse virtual learning platforms. These mediated environments may be restricted to within country designs (Alavi et al., 1997; Northcraft et al., 2006) or to between two or more countries (Davison et al., 2003; Panteli and Davison, 2005; Vogel et al., 2001; Sarker and Sahay, 2003) as part of a student's learning process. A study by Alavi et al (1995) that compared two distributed courses (one with campus-based students and the other with non-proximate distant students) with a traditional classroom based course, found that even though none of these environments contributed to significant differences in terms of students' knowledge acquisition, the students involved in the distant distributed course shown higher levels of critical thinking skills. Similarly, Piccoli et al. (2001) in a study on the effectiveness of web-based learning environments found that learning in such environments did not prove detrimental for students' performance while it fostered increased computer self-efficacy. Research has also found that instructors' role in fostering learning is vital in such mediated environments. For example, Webster and Hackley (1997) found that students tend to experience more positive learning outcomes when instructors exploit the full potential of the technology that they made available to their students; in the same study it was found that instructors need to show to their students that they have control over the technology otherwise students develop negative attitudes towards the technology and the virtual learning environment in general.

We agree that such technology-mediated teams are important for enhancing students' learning as well as for giving insights into virtual team dynamics by simulating work based scenarios that our students are likely to experience in the 'real' world. Despite, however, the popularity of these virtual student-based projects, there is no study that examines the instructors' own emotions in virtual learning practices. An exemption to this is Gillmore and Warren (2007) who discussed how emotions have been transformed through the use of virtuality in a teaching and learning setting. Gillmore and Warren present the case of teaching using online seminars and show that these contributed to increased experiences of emotionality which the instructors found very rewarding and re-humanised. For them the online learning practices enabled them to engage with their students in a different way that they would do in the traditional collocated learning environment. The use of online seminars was found to increase the use of playful language among students as well as removed embarrassment when interacting with others which was often felt in the traditional setting. These instigated pride among the teachers involved but also at times shame for the 'bad' language that the students sometimes used in their online interactions. They nevertheless call for further research into the emotional impact of these virtual learning practices for the tutors and teachers involved.

In this paper, we draw from the management and educational literature to discuss the emotional experience of an instructor during the design and implementation of classroom exercises in virtual settings. In particular, we analyse how the emotional experience of the instructor can lead to the redesign of virtual pedagogical activity. We argue that emotional experience of an instructor develops through various stages of the virtual learning activity, which begins with a positive emotion. However, an intense 'anxiety based' emotional experience can lead to a heightened sense of negativity towards a virtual learning activity, often resulting in feelings of abandonment. Yet these same negative emotions can transfer into positive emotions leading towards a reinvestment in the virtual task. We use developed models of experiential learning (Vince, 1998) as a framework to analyse our data. From this analysis we identify how the dynamics of the instructor's emotional experience develops

across the pre-implementation stage, the implementation stage and the post-implementation stage.

The paper is structured as follows: next we present an account of the key bodies of literature which inform the basis of our study. In particular we draw on research in the field of experiential learning in management education to position our research contribution within this field. We then present our case studies and our findings by discussing the different emotions that we experienced during the key stages of the virtual learning activity and by reflecting on our learning experience. Finally, we bring the paper to a close by outlining the practical implications of our study and identifying areas of further research.

EXPERIENTIAL LEARNING IN MANAGEMENT EDUCATION

Kolb's (1984) learning cycle is an influential theoretical model which can help to explain the process of experiential learning in management education. This model acts as a useful framework to help us analyse how our emotions, as instructors, have contributed towards our learning process. The learning cycle suggests that successful learning takes place when we continually reflect on and develop our experiences across the following four stages, concrete experience, reflective observation, abstract conceptualisation and active experimentation. Kolb argues that the learning cycle can commence at any of the four stages and that learning should be viewed as a continual process. The learning process commences when an individual carries out a particular action and then observes the outcome of this action. For successful learning to occur, Kolb suggests that it is necessary to progress to the third stage of the cycle (i.e. forming abstract concepts). This involves forming a generalisation by understanding the outcome of the action so that if a similar action was taken in similar circumstances it would be possible to predict the outcome of the action. The final step is to test the general concept in a new situation.

Whilst Kolb's cycle remains one of the most influential learning tools in management education there are a number of limitations of the model which have been well documented in recent literature (Beard and Wilson, 2002; Miettinen, 2000; Reynolds 1997; Holman, Pavlica and Thorpe, 1997 and Vince, 1998). Beard and Wilson (2002) highlight issues raised by Reynolds (1997) and Holman, Pavlica and Thorpe (1997) argue that Kolb's experiential thinking based on action may result in false conclusions as it may not help individuals to understand and explain change and new experiences. This is partly because the theory positions itself within the cognitive psychology domain and isolates itself from aspects of social, historical and cultural perspectives of self, thinking and action. Further, the learning cycle assumes that individual reflection occurs in a vacuum, unaffected by the social environment in which the learning takes place. In effect social interaction is a critical ingredient in the development of self, thought and learning, something that the Kolb's learning cycle fails to take into account. The conceptual diagram of the learning cycle depicts that individuals will progress sequentially through the stages of the cycle. Whereas Beard and Wilson argue that learning should not be categorised into distinct stages, but rather viewed as a seamless activity in which thinking, reflecting, experiencing and action are different aspects of the same process. Miettinen (2000) suggests that Kolb generalises a model of learning in a very unilateral way as the experience and reflection stages of the learning cycle often occur in isolation, however it is necessary for greater interaction with other individuals and the external environment to enhance the reasoning and conclusions drawn when forming abstract concepts.

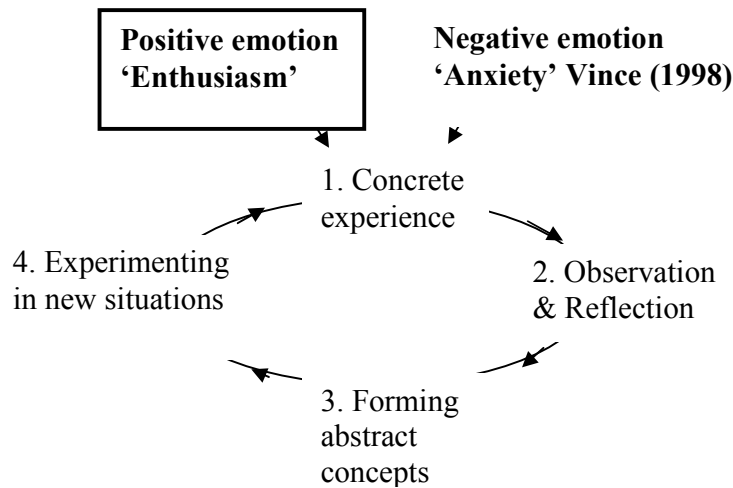
There have been a number of developments to Kolb's original work in management education. Indeed one of the most important contributions is that of Vince (1998). Vince makes an important development to the learning cycle by highlighting how an unconscious experience and emotional anxiety influence the learning process, something which has been overlooked in previous literature and is a particularly relevant area for the purpose of this study.

In particular, Vince suggests that there is a greater need to consider the psychological and unconscious processes as part of the learning cycle. More emphasis needs to be placed on understanding the impact on individual or group emotion on experiential learning. Vince argues that approaches to learning in educational institutions often recreate learning environments that shield certain emotions. This desire to prevent the surfacing of unwanted emotions from management education restricts both the intensity and extent of the actual learning experience. Fears, anxieties and doubts are integral emotional experiences which shape the process of both learning and change. Vince builds on Kolb's model of experiential learning by arguing that the starting point of the learning process is anxiety, fear and doubt. These intense, unconscious emotions have the potential to create the 'fight or flight' reaction, where the emotions can either promote or discourage the learning process. If the individual or group has the ability to control the anxiety then they can to an extent contain these intense emotions. Vince suggests that the concept of controlling [holding] the anxiety is a form of expressing the observation and reflection stages of the learning cycle, where learners choose the risk to remain in a state of uncertainty. This process of controlling or risking the unknown often develops into a form of generalised insight [abstract conceptualisation]; however this may not necessarily be immediately apparent, as the learning may in fact take place at a later stage. Vince argues that experiential learning can be achieved by rejecting the defensive emotions which emerge when faced with the prospect of the turbulence of the unknown. This turbulence represents the continual need to learn once again how to learn, by encompassing the unconscious experience. The anxiety can also cause a defensive reaction whereby there is an urge to run away from the difficult emotions or to develop a combative stance. The emergence of avoidance strategies or defence mechanisms encourages a move towards 'willing ignorance' (Vince and Martin, 1993, p.210) which is a necessary defence against the threat of self-destruction which learning often implies. Vince highlights the issue faced by the learner is working within this paradox.

Vince's (1998) model serves as a useful framework to analyse our own emotions as instructors during the design and implementation stages of virtual learning activities, but we find that Vince's model takes a focus on negative emotions. Our position however is that innovations in teaching start with a positive emotion. This is because there is greater sense of enthusiasm on behalf of the instructors as they are keen to introduce new approaches in their teaching practice and to provide students' with the opportunity to engage in a richer learning environment. Therefore, we build on Vince's (1998) original model by arguing that the learning process can also begin with a positive emotion. This is illustrated in figure 1. In particular, for the purpose of this study we adapt Vince's (1998) model on the theme of anxiety to argue that a positive emotion influences the concrete experience stage of the learning cycle.

During our case analysis, we identify the different emotions experienced by the instructor and discuss how the dynamics of the instructor’s emotional experience develops across the pre-implementation stage, the implementation stage and the post-implementation stage of the learning activity.

FIGURE 1: ADAPTED FROM VINCE (1998) DEVELOPMENTS IN KOLB’S LEARNING CYCLE ON THE THEME OF ANXIETY.



CASE STUDIES

Our study will draw upon three different student based virtual projects that took place during the period of 2003-2008 to form the basis of our results. The projects have been conducted in Second Life and through online discussion forums. The project in Second Life was designed to simulate a work based team decision making process. In this task, groups of students were allocated pre-defined conflicting roles as members of a hypothetical executive board. Their task was to arrive at decision within a set time frame. 196 students participated in forty virtual meetings over a two week period. The other two projects involved a virtual collaboration where students from different universities were asked to work on a group project as part of their assessment within a four-week period. The task mandated the use of web-based technologies, mainly online discussion forums and a cooperative effort on the part of all team members who were assessed as a group.

Case A

Second Life- UK Based

A group-decision making task in Second Life formed the basis of the coursework assessment for 196 first year students on an undergraduate organisational behaviour course in the UK. The intention of designing the coursework activity in Second Life was to allow students the opportunity to experience the process of conflict and negotiation in virtual teams. The assessment involved students participating in virtual meetings in Second Life and then reflecting on their experience of the decision making process during group

presentations. The context of the virtual meeting in Second Life was structured on a role playing scenario in a hypothetical organisation in which groups of students were expected to negotiate a change proposal. The majority of students' first exposure to Second Life was through the coursework activity, yet their lack of familiarity with Second Life did not act as a barrier to participation in the virtual meetings. In fact, only a relatively small percentage [3%] of the total number of students was unable to take part in the virtual meetings, this was partly due to certain technical issues and mitigating circumstances. Further, Second Life accessibility issues were minimal, as the majority of students owned laptops. Nevertheless, PCs with Second Life client software were made available in the undergraduate computer laboratory as a contingency. This proved valuable as some students had issues between graphics card compatibility of their laptops and Second Life

Learning and Emotional Experience

Pre-Implementation

Initially there was a lot of enthusiasm and excitement as the project was innovative and exciting and novel. A significant amount of time, effort and energy was invested in preparing the activity. Organisation of 196 students and the coursework task was particularly time consuming, however this was to be expected as the inception of the coursework task was completely original.

Implementation

Anxiety began to surface during this stage as the extent of the task began to dawn on the instructor. Realisation set in about the time-consuming nature of the task. Enthusiasm began to wane and was replaced with feelings of anxiety and nervousness as a number of issues began to surface. For instance, the instructor was dependant upon an external agency in Second Life where the virtual meetings were to be held. Although the agency had initially agreed to allow access to a virtual island in Second Life for the virtual meetings, two weeks prior to the start of the meetings, communication between the instructor and the agency had broken down. At this moment the instructor became concerned whether the project would actually go ahead, but couldn't convey these emotions or discuss the issues with the students as the instructor was under pressure to provide a well-designed and organised activity out of fear of compromising her professional integrity. The instructor also wanted to provide the students with the opportunity to experience this type of unique innovative activity and was determined to make the project work. These feelings of apprehension turned into determination. The meetings were held in two hour slots with a maximum of five groups meeting in succession for 20 minutes at a time. This meant that meeting times had to be strictly observed, so as not to run over. There was one instance where a particular group was missing 2 members due to connectivity issues and their meeting had to be cancelled as it was running over time. This issue was easily resolved as virtual meeting was rescheduled at a mutually convenient time once connectivity was resumed so that all group members were able to participate.

Post-Implementation

A number of teething problems emerged, but were ironed out after the first set of meetings. The initial feeling experienced was one of relief and elation and a desire not to undertake the task again. However upon reflection and after some time these negative feelings towards the project were soon replaced with practical and rational thoughts based on the fact that an incredible amount of energy, time and effort was invested in developing the task and therefore it would be practical to repeat the activity again.

In the following two cases we describe two projects that involved the formation of global student-based virtual teams (GVSTs). The first involved a UK-Hong Kong collaboration and the second a UK –US collaboration.

Case B

UK - Hong Kong Global Student-Based Virtual Teams

This GVST project took place in Spring 2003. Students were asked to work on a GVST project as part of their course assessment. In total there were 47 students involved, 23 in the UK and 24 in Hong Kong. All the Hong Kong students were postgraduates while at the UK university, there was a mix of both postgraduate and final year undergraduate students who were doing an IS elective. There were eight teams and most consisted of six students, 3 from Hong Kong and 3 from the UK (2 undergraduates and 1 postgraduate). The teams had no prior working experience together and were not expected to work together again in the future. All the teams were given the same task to complete which involved a case study analysis on the use of a knowledge based system within a global consultancy firm. The task mandated a cooperative effort on the part of all team members who were assessed as a group. Random grouping was adopted in the formation of these GVTs as our intention was to expose students to the challenges of working in diverse teams where there was limited familiarity with other co-participants. At the end of the project, all team members were required to submit individual reflections on the project, documenting their personal reactions to the way the project was arranged, the behaviour of the other team members and how the project could be improved in the future.

Learning and Emotional Experience

Pre-Implementation

This was the first student-based project of a virtual nature undertaken by the specific instructor (second author). There was a lot of enthusiasm due to the innovation involved and excitement about setting up a collaborative project with another university. It is important noting that she worked however on this with an experienced professor who had previously been involved in similar projects and who was well known in the academic community for his initiative to undertake this type of virtual projects. Therefore, as far as the UK instructor was concerned, there was trust in his ability to organise such projects.

Implementation

Participants in the project were given access to Blackboard, a web-based conferencing system. Blackboard is defined as a tool for “teaching and learning and provides the functionality required to successfully manage distance, web-enhanced or hybrid education programmes” (<http://www.blackboard.com/products/index.htm>). The Blackboard site was hosted at the University in Hong Kong and all students were given specific instructions on how to access the site. Each team had its own private web space (accessible only by team members and instructors), which enabled such communication activities as email, file sharing, synchronous and asynchronous discussions. The asynchronous discussion forum provides a threading option so that team members can organise messages in a structure of their choice. All contributions made through Blackboard were automatically identified with the real name of the contributor.

At the end of the project, all team members were required to submit individual reflections on the project, documenting their personal reactions to the way the project was arranged,

the behaviour of the other team members and how the project could be improved in the future. Overall, the project went smoothly and there were no particular problems on behalf of the instructors nor the students.

Post-Implementation

With students' positive reflections on the nature of the project, there were feelings of pride by the instructor. These were enhanced with recognition of the importance of such cross-university projects from other colleagues inside and outside her department. The instructor for example received a teaching innovation fund to expand her virtual activities in her teaching and the results of the extended projects were made available to the entire university community. Following the success of the project, this instructor decided to continue the use of such GSVT project in her teaching.

Case C

UK - US Global Student-Based Virtual Teams

Similarly to Case B, students in this case were asked to work on a GVST project as part of their course assessment. The project took place in Spring 2008. In total, there were eight teams and most consisted of eight students, 4 from the US and 4 from the UK. Like Case B, the teams had no prior working experience together and were not expected to work together again in the future. All the teams were given the same task to complete but a different web-space. Each team had its own web-space that was only accessible by the members of the team and the instructors. Students had to write a final joint report after the fourth week of the project and submit a reflection report as part of their assessment.

Learning and Emotional Experience

Pre-Implementation

The collaboration between the UK and US instructors started as a result of them meeting at an international conference a few months before. There was not much familiarity between the two instructors but both were from well-known universities in their countries and internationally and therefore there was trust in the affiliated institutions. The US instructor had assured the UK instructor that she had a lot of experience in organising such projects and that she had collaborated with other European universities in the past. This had given reassurance to the UK instructor who was confident that this GSVT will be another success case. However, there were at times during the pre-implementation stage feelings of uncertainties as the US instructor was not always responsive to her emails and was not providing sufficient information about the project. As the project was agreed to be hosted at the US university site and managed and monitored by the US instructor and her assistants, the UK instructor felt at times anxious about the feasibility of the project.

Implementation

When the project started, it became clear that the US instructor had set up additional weekly activities for the students without the knowledge of the UK instructor and students. UK students therefore found themselves in a situation where they had to get involved in weekly activities without their prior knowledge as well as answer to an automated feedback questionnaire at the end of every week. This caused a lot of anxiety among both students and instructor. While however the students were able to express their frustration to the instructor, the instructor could not do the same to them; it wouldn't have been professional to do so. She rather took the issue up with the US instructor. It was agreed that extra marks needed to be given to the students for their participation in the extra activities. This was a

common practice in the American higher-educational system, but not so familiar in the British system, so even though the instructor agreed to this, she still felt rather uncomfortable with the idea of giving extra marks simply for participation in questionnaires. This arrangement satisfied the UK students but left the instructor wondering whether it was worth organising such virtual projects again in the future.

Post-Implementation

Students in their reflection reports acknowledged the challenges of virtual teaming and as this was a learning objective of their course, the project was seen as successful. They also said that despite the difficulties they enjoyed working on this project. The UK instructor, however, following this case started rethinking the virtual, global and cross-university nature of the assignment. Communicating at a global level and virtually meant as it happened in this case that some information was miss-communicated. There were misunderstandings which caused a lot of frustrations on the UK site specifically and some on the US site (though this was probably limited to the US instructor only and not the students). There was also a sign of regret for signing up to the project.

DISCUSSION

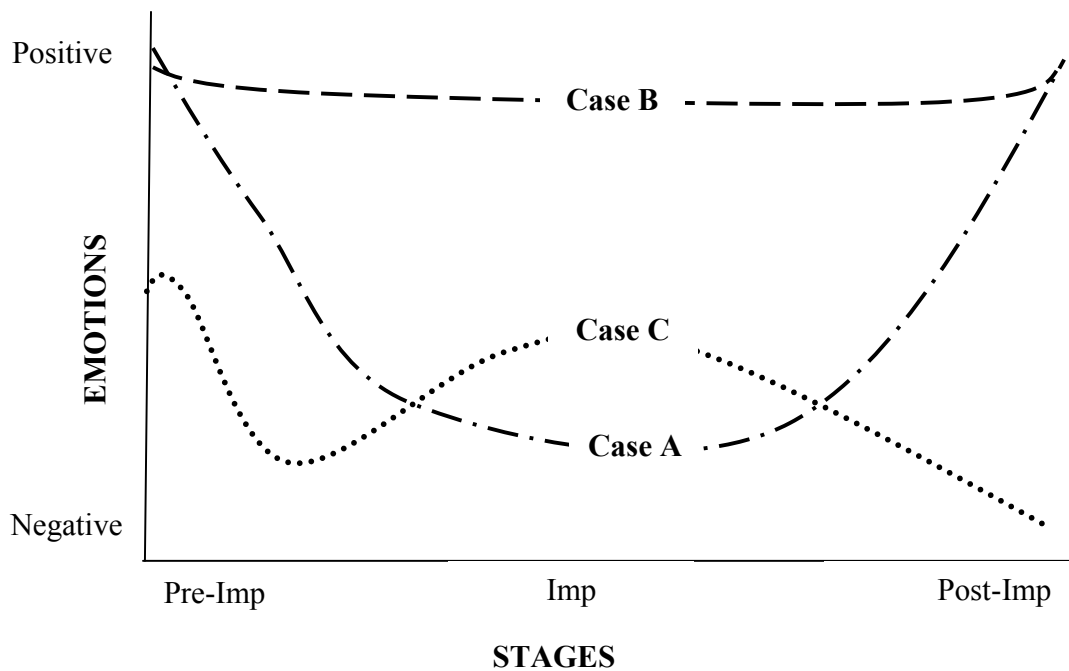
In this paper, we presented three student-based projects that were set up as part of course assessment. In our analysis, we have examined the emotions experience by the instructors involved at different stages of the project. Indeed, the analysis has shown that different emotions have been experienced. Table 1 below shows a summary of key emotions at the different stages of a virtual learning activity.

TABLE 1: SUMMARY OF KEY EMOTIONS DURING STAGES

Stages	Emotions
Pre-Implementation	Excitement, enthusiasm
Implementation	Fear, nervousness, pressure, anxiety
Post-Implementation	Pride, Relief, lack of enthusiasm, elation, pride.

The temporal dimension can be added in our analysis of each of our cases, which is illustrated in figure 2. Case A was undertaken by the first author and Case B and C were undertaken by the second author.

FIGURE 2: TRAJECTORY OF EMOTIONS



It was the first time that the instructor of Case A had developed such a project, but was nevertheless experienced in using virtual technologies for teaching and learning purposes. As figure 2 illustrates the emotions of the instructor were inconsistent as the project went through different stages. Upon reflection, part of the reason that the instructor involved in Case A experienced positive emotions was because there was a level of confidence and belief in the nature of virtual project and the instructor approached the project with high expectations. However as the project progressed issues began to arise and expectations were not being met causing the enthusiasm towards the project began to decrease. In case A one of the main contributors towards the fluctuating emotions experienced was issues of control, because the project was reliant on an access to an abstract system. This meant that part of the control was transferred to the external agency. As the instructor was reliant on the external agency demonstrating the same levels of enthusiasm towards the project she had to place a level of trust in this external agency. Of course, the instructor was accountable and responsible for the project and therefore was more committed towards making the project a success. This placed her in a vulnerable position, due to the element of assessment attached to the project. The non-response from the external agency in the weeks leading upon to the project going live became a source of frustration and huge pressure. As a consequence this led to a re-evaluation of the enthusiasm towards the project. However, once the project commenced, a higher level of control was transferred back to the instructor and the enthusiasm towards the project began to resurface. Thus as shown in figure 2, positive emotions are experienced again especially during the post-implementation stage.

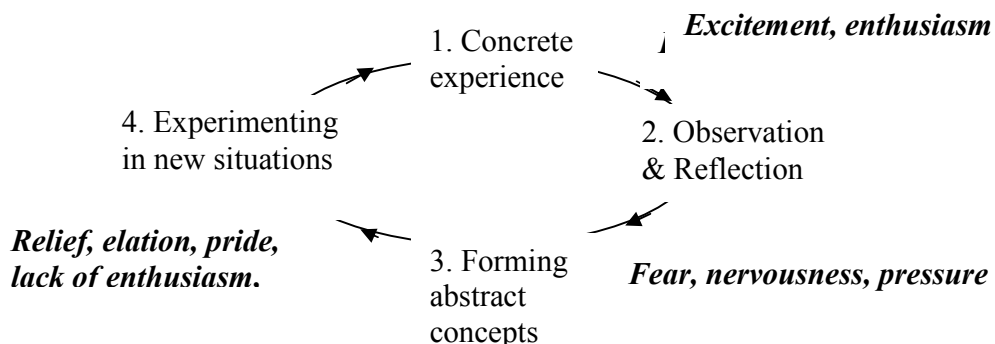
Of course there was always the fear that the technology could crash at any point during the virtual meetings. Nevertheless, it was relatively easy to reschedule a few of the meetings as the virtual nature of the project alleviated any physical classroom space and time constraints. This meant that the meetings could easily be rearranged at a mutually

convenient time as was experienced. Once the project was completed, there was no immediate desire to repeat the project again, but over time the instructor felt that because she invested a lot of time and effort into developing the project she would repeat the project again but would make certain changes, such as changing the assessment weighting.

Case B was the very first project that this instructor had undertaken of this nature. It was an innovative and creative attempt and despite her own inexperience there was trust in the experience of her collaborator. All the instructions were clearly presented to the students and therefore during the course of the project there were no particular concerns or anxieties experienced by neither the instructor nor her students. The project described in Case C took place five years later. By this time, the UK instructor gained more experience in setting up projects of this nature and was willing to collaborate with people she did not know that well. By this stage therefore, the idea for GSVT was no longer novel nor creative for the instructor involved. For her, it was another project of a virtual nature that would be a useful experience for her students. Unlike however Case B, this case involved much anxiety and frustration as described in the earlier section. There was the realization that once you embark on such activities you have to go all the way. Therefore, despite the challenges that may be experience, the instructor cannot withdraw her students from the project just because she is feeling anxious or frustrated with her collaborator. Instead instructors need to show to their students that such activities are well-planned and are pursued in a professional manner. It is only with the completion of such projects, at the post-implementation stage the decision may be made not to undertake these projects again or to undertake them differently. These different emotional experiences are shown in figure 2. Case B depicts a highly stable positive emotional experience throughout the three stages; Case C starts with some positive emotions, despite the lack of novelty but mainly due to past experience, and turns to negative emotions during implementation and post-implementation.

Before we draw our paper to a close we summarise our learning experience by presenting the key emotions experienced at different stages on learning cycle in figure 3.

FIGURE 3: EMOTIONS EXPERIENCED DURING THE LEARNING CYCLE



CONCLUSION

Our paper has presented the findings from three separate case studies which analysed the emotions of instructors during the design and implementation of virtual learning projects. Using developed models of experiential learning (Kolb, 1984 and Vince, 1998) as a framework to analyse our findings we identified that instructors experience a number of different emotions during the pre-implementation, implementation and post-implementation stages of innovative virtual learning projects. Due to the innovative nature of the project we approached the activity with positive emotions, however as the project progressed through various stages our emotions changed and this led to varying levels of commitment. We found that our emotions contributed towards our learning process and the re-design of subsequent projects was influenced by our emotional experience. Of course the innovative nature of the project may have contributed towards a heightened sense of emotions as creativity involves risk. This places the instructors in a vulnerable position as any failings may be exposed to students and colleagues and frustrations may surface when there is lack of control and lack of trust in collaborators.

We have identified a number of practical implications from our research. These include the importance of a contingency plan, particularly when there is an element of assessment attached and the importance of allowing ample time in which to plan and execute the activity. It is critical not to underestimate the amount of time to set up these projects and if working with external agencies, there is the need to trust the collaborators and not just the institutes that the collaborators come from. Although our research has identified a positive emotional aspect which influences the learning process of instructors of innovative teaching practices, further research is needed to explore this temporal dimension by conducting more cross-case comparisons.

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