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TRACK THEME: LEARNING, TEACHING AND ASSESSMENT IN HOSPITALITY MANAGEMENT EDUCATION.

*Title: Student engagement for retention in Hospitality Management*

*– A digital approach.*

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**Abstract**

It is well known that a significant number of students consider withdrawing from their initial course of study and therefore institutions, departments and academic teams need to have a focus on improving academic and social interventions. There are multiple factors that can influence entry, transition and retention of students in higher education. Among the salient factors noted in the literature which can promote student success and retention in Higher Education are the importance of pre-entry information and transitional support.

A recurring retention challenge on the BSc International Hospitality Management Course at Ulster University initiated the design and implementation of an award winning innovative creative media project to seamlessly engage students at pre-entry and post entry into University. Early indications are presenting some encouraging outcomes in student success at course level, however more widely in Ulster University the project has also had significant impact. This paper considers the complexity of factors related to student engagement. It also demonstrates the positive impact that one specific digital resource has had on student engagement. It further explores pedagogy regarding technology enhanced digital learning for Hospitality Management students to affirm course choice and generate a feeling of belonging in unfamiliar social learning spaces during transition to Higher Education.

Key words: student engagement; student success; enhancing student learning experience;

 digital learning environment; simulation.

**Institutional context and the rationale for a digital approach.**

Ulster University has positioned itself as a widening participation University. It is recognised as being successful in this regard and is one of the 13 UK Higher Education institutions taking part in the current phase Higher Education Academy ‘What Works?’ project. Building on the outcomes of Phase One of the ‘What Works?’ project, Ulster recognises the need for all staff to engage in the retention and success agenda. The report from the Phase One of the project highlights that ‘nurturing belonging and improving retention and success should be a priority for all staff as a significant minority of students think about leaving and changes need to be mainstreamed to maximise the success of all students’ Thomas (2012, p.69). Consequently, the current phase of the 'What Works?' project seeks to analyse and evaluate best practice to ensure strong student retention in Higher Education. Central to Ulster University’s Student Retention and Success Change Programme is the need for meaningful staff student partnerships that engender a shared responsibility and secure a positive student experience within a supportive learning environment. This programme is underpinned by Ulster’s Learning and Teaching Strategy 2014-18 which has an overarching aim ‘to provide students with high quality, challenging and rewarding learning experience…with the intention to enhance the student experience and promote student engagement and success’. (Ulster University Learning and Teaching Strategy, 2013, p8).

Contributing to this, the Ulster University Business School has been set an ambitious retention target of 94%. Whilst the Business School’s retention figures are among the best in Ulster there are some business school programmes that have high attrition rates. This is the case on the BSc International Hospitality Management. Significantly in2012/13 more than a quarter of students on the programme withdrew in the first year of their studies. The programme of study is a vocational degree that engages learners in both academic classroom based learning as well as interacting with customers in Ulster’s Academy Restaurant. This exposes the students to a commercial hospitality experience in a training restaurant environment with the aim of developing ‘work ready’ graduates for the global hospitality sector.

The Academy Restaurant at the Belfast campus of Ulster University is a unique resource for both students and staff that provides invaluable practical experience in a live commercial restaurant environment, however, first year students are overwhelmed by the thought of working in this daunting setting by week 3 of their course. Exit interviews with first year students who had withdrawn from the course stated that the practical nature of training in the Academy restaurant was not what they expected as part of their studies. This created personal anxiety and therefore contributed to their decision to leave the course. This highlighted a need to enhance pre-induction materials for 1st year students and to explicitly demonstrate through a multi-literacy approach what is expected of students during their time studying International Hospitality Management at Ulster. The key to success in pre-induction programmes is to make sure that they are not simply addressing where students can access support when they encounter problems. Critically pre-induction programmes should also contain content that ensures students enter university with a clear understanding of the challenges they may experience academically, socially and psychologically.

In an effort to foster a sense of belonging, engagement and connection for hospitality students, an innovative joint project between the Office for Digital Learning within Access, Digital and Distributed Learning (ADDL) and the Department of Hospitality & Tourism Management within Ulster University was developed. The project focused on supporting student choice and transition into the university experience and combined the creative and technical skills of ADDL together with the academic and business expertise from the Ulster University Business School to deliver an engaging, immersive digital learning and teaching tool called the ‘Virtual Academy’.

**The complexity of student engagement towards emergence of digital learning tools.**

Thomas (2012, p.1) in her summary of findings found that ‘student success means helping all students to become more engaged and more effective learners in higher education, thus improving their academic outcomes and their progression opportunities after graduation’. One of the core themes in the plethora of literature on student engagement (Wimpenny and Savin-Baden, 2012; Trowler, 2010) highlights the links between student engagement and student success. It is recognised that engagement is a valuable exercise with regard to first year students on transition from secondary to tertiary education.

There are various models to suggest a transition pedagogy that serves as a model of student engagement. (Kift and Clarke, 2010; Coates 2007; Solomnides, Reid and Petocz, 2012). Each model exposes that a ‘sense of engagement emerges when students gain a sense of being and transformation by being professional and commanding discipline knowledge’ (Zepke 2013, p3). Fredricks et al. (2004) summarises that student engagement results from appropriate academic behaviour, positive emotions toward learning and a willing commitment to learning tasks in other words an ‘investment in their learning that requires supportive institutions and an enabling external environment’. (Yorke and Longden 2008, p6)

Whilst the American interpretation of engagement is within a pre-determined and generic pedagogical framework (Trowler 2010; Bryson and Hardy 2012), engagement research in the UK tends to focus on understanding a student’s own sense of learning in a constructivist framework. Consequently there is a great variation of views about student engagement. However there are links between them in that they are all linked to student success, focus on learners and assume a student centred pedagogy where lecturers and institutions play a supporting but vital part. Further to this (Heylighen, 1999) notes the complexity of engagement literature in that it is both connective and distinctive. This is a positive position as this can lead to ‘emergence' as a natural feature of complexity and enables new understandings to surface that can generate engagement strategies that support the first year of study with the knowledge that ‘one size does not fit all’ (Davis and Sumara, 2008; Zepke 2013).

The ‘Virtual Academy’ tool created ‘situated’ teaching and learning activities based on a virtual replica of the Academy Training restaurant that could be accessed through the virtual learning environment on the Ulster University VLE- Black Board Learn. The resources can be accessed through the student’s own mobile devices. This provided a means to create a learning tool which would increase student engagement in learning and develop capability using technology to support student learning. Vygotsky’s (1978) conceptualisation of learning as being both cognitive and social informs the ‘Virtual Academy’ constructivists approach.

The ‘Virtual Academy’ tool is built in Adobe Edge Animate which enables the integration of all aspects of creative media to enhance the student learning experience in one user interface that is viewable on all devices. Developing a learning resource using multimedia helps to cater for the different learning styles of students: visual learners learn best through the use of video, images and animations whilst auditory learners understand new concepts when they hear it and tactile/kinesthetic learners learn by doing (Gregory and Chapman, 2012) With this in mind the project included explorable 3D models of the bar, kitchen and dining areas, video interviews, time-lapses, instructional videos and an interactive drag and drop table setting activity along with integration with Wiki and blog tools within the Virtual Learning Environment (VLE). Another benefit of this framework is that it lends itself to the connectivism theory of learning facilitating knowledge construction, which is relevant, up-to-date, applied and customisable (McConatha, 2013). Furthermore, mobile learning is defined as ‘learning that is facilitated and enhanced by the use of digital mobile devices that can be used anywhere any time’ (O’Connell and Smith 2007). Sharples et al., (2007, p5) define mobile learning as ‘the process of coming to know through exploration and conversation across multiple contexts, amongst people and interactive technologies’. This provides a definition linking the ‘Virtual Academy’ tool to mobile learning and therefore aspects of constructivist learning.

Applied technology enhanced learning in purpose built work rooms mirroring the facilities and structure of real world workplaces like the Academy Restaurant provides students with opportunities to learn how to apply knowledge learnt in conditions mirroring real world application. This involves problem solving pertinent to specialised contexts and experience the implications of knowledge learnt and provide support while they learn in a situated learning environment (Collins 1988). Mobile learning complements situated learning through the ‘just in time’ when needed access to information including ready access to support examples to confirm new learning, along with the ability to capture learning moments as they take place. In combining mobile learning with situated learning the concept can be summarised as ‘from learning as content to learning as context’ (Pachler et al., 2010).

Academic and social integration into university life has been recognised as a key factor in reducing the likelihood of student attrition. (Roberts and McNeece, 2010; Lassibille, 2011). More creative techniques for ensuring the social integration of students can improve student engagement toward student success. One of the underlying aims of the ‘Virtual Academy’ tool was to help students to connect or adjust to the social fabric of higher education and aid their psychosocial development and integration into an HE environment (Gerdes and Mallinckrodt, 1994; Harvey and Drew, 2006). The socialisation video within the ‘Virtual Academy’ digital learning tool was developed so that a student feels that they fit in or are connected to those around them and sense that they are less of an outsider from a social aspect. Students who feel accepted, respected, included and have a sense of belonging with their educational institution, will do better in terms of educational engagement, academic behaviour and be more successful than those who do not (Tinto,1975 and 1997; Thomas, 2002; Wilcox et al., 2005; Yorke and Longden, 2008; Roberts and McNeese, 2010). Therefore the ‘Virtual Academy’ tool used at pre-induction could be viewed as a critical first step in a ‘feeling of belonging’ in the social fabric of university life (Forbes, 2008). Those who feel marginalised (Schlossberg, 1989), left out or that they do not fit in often will not be as successful as those who do. In the literature it has been well documented the role of successful social integration and its relation to positive educational outcomes like engagement and success (Yorke and Longden, 2008) however there has been little consideration given to creating innovations that generate or enable the social integration of students.

The rapid advance of mobile technologies means that access to content is no longer text dependent. Approaches to teaching and learning should recognise the emergence and importance of audio and visual multi-literacies. These include visual literacies for working with images and audio modalities to understand vocal presentations, like the successful past graduate interview in the ‘Virtual Academy’ tool. These forms of expressing understanding are especially important in vocational based learning. Much skilled based learning is ‘hands on’ skill and practice centred and requires learning by doing, leading to eventual competency. For hospitality students there is a need to understand what they will be ‘experientially learning’ when in the kitchen production environment and what they will be ‘experientially learning’ when in the restaurant service production environment.

**Project plan and design of the ‘Virtual Academy’ digital learning tool**

Before implementing the design and development process the concept was discussed at a focus group that included 1st, 2nd and 4th year students. There was a unanimous agreement among students that they would use a bespoke simulation and it would be a useful tool. The students stated however that they would prefer imagery of real students in the simulation rather than 3D models, a suggestion that was carried through to the design, including real people as cardboard cut-out avatars.

Following meetings and student feedback sessions it was agreed that the project direction would focus on a ‘Virtual Academy’ Restaurant and the main objectives of the project included, developing resources which would assit student transition to university, provide a realistic insight into the Practice based aspects of the course and significantly how these aspects link to employability.

This resulted in a ‘Virtual Academy’ digital learning tool with explorable kitchen, dining area and bar with interactive hot spots that open firstly to a socialisation video to show where students fit into the overall sector and what to expect while studying at Ulster. Secondly Time-lapses of kitchen and dining room during service and also an interactive drag-and-drop place setting exercise with an instructional video so they can practice before and during their shifts in the restaurant. Finally the tool introduces an interview with an industry special guest, past student and current employer to give a true reflection on job prospects and careers.

The main aim of the ‘Virtual Academy’ is to raise student awareness of the 'hands on' aspects of this course before they make their decisions for UCAS, enabling a more informed decision about their choice of course.

**Integration with technology**

We are in changing times, the mobile internet has revolutionised how students engage with learning materials. One of the challenges facing educators is how to deliver learning materials in a format that works across all devices. Ever since the unveiling of the iPad in 2010, Adobe Flash support has been dwindling rapidly and Adobe announced it had stopped developing the mobile plug-in in November 2011 (Winokur, 2011) and with it the ability to provide a rich, interactive learning experience for students on any device. However HTML 5 has provided some light at the end of the tunnel with the release of Adobe Edge Animate, a HTML 5 editing and animation tool. Edge enables the production of rich, interactive learning objects that work across browsers, computers, tablets and smartphones.

The ‘Virtual Academy’ project is hosted within the Ulster Virtual Learning Environment (VLE) in the course support area for Hospitality Management International degree programme. It has been built in Edge Animate using HTML 5, Javascript and JQuery to enable cross browser and device support. A 3D model of the Academy was built in Maya with resulting animations optimized in Photoshop and Fireworks, the socializing video was created using Maya, Poser, Illustrator and After Effects. The past graduate interviews and table setting video were edited and rendered in Premiere and Soundtrack pro was also used. All videos are hosted in Vimeo, this facilitated the embedding of the resource videos in the interface on all devices.

**‘Virtual Academy’ - Project Outcomes to date.**

A small first year student focus group was held in February 2014 where the ‘Virtual Academy’ was demonstrated in order to evaluate the ‘Virtual Academy’ tool using student feedback so that adjustments could be made accordingly. This resulted in a constructive session and the students observed the tool to be valuable for informing transitioning first year students.

In April 2015 the ‘Virtual Academy’ tool was piloted using supplied ipads and tablets with 18 outgoing first year students. This gave the students an opportunity to engage and interact with the ‘Virtual Academy’ tool and following this exercise the students were asked to complete a feedback survey. The results showed that 100% of the students believed that the ‘Virtual Academy’ tool would ease the transition from school to University and clearly inform course choice because of the focus on the practical aspects of the course. The students also applauded the socialization video because it was ‘fun and a fair representation of the course’.

At institutional level the ‘Virtual Academy’ project has had impact where project dissemination has encouraged other faculties to consider discipline led technological approaches to engage students on their courses and for teaching and learning. Consequently this has fostered creativity in curriculum design and delivery using a range of mobile devices encouraging flexible access to learning opportunities. Furthermore the project encourages best practice in cross faculty collaboration, enables academic enterprise and most importantly promotes learner satisfaction.

In May 2014 the ‘Virtual Academy’ project won the Regional Support Centre (Northern Ireland) eLearning Innovation Award in Higher Education for Learning funded by JISC for stimulating and supporting innovation in Learning.

**Conclusion:**

This paper demonstrated the complexity of student engagement for retention and explains why technology enhanced digital learning is supportive for student engagement particularly in uncertain or unfamiliar social learning spaces during transition to confirm course choice, generate a feeling of belonging and secure student success.

The project continues to be very much ‘work in progress’ in support of student learning In February 2015 the ‘Virtual Academy’ project was released as the first ever Ulster iPad App on iTunes that could be rolled out to schools and careers teachers as well as for the recruitment of international students.

[https://itunes.apple.com/us/app/virtual-academy-restaurant/id951641538?ls=1&mt=8](https://mail.ulster.ac.uk/owa/redir.aspx?C=cBALOJgKJU-jlkfx8nXTx9C59r_XItII3s2JFfkG-cZK9-ZF1RDzwRsJYp0X8HD8VdffbR5kvlc.&URL=https%3a%2f%2fitunes.apple.com%2fus%2fapp%2fvirtual-academy-restaurant%2fid951641538%3fls%3d1%26mt%3d8)

Indeed the Virtual Academy iPad App has also been downloaded globally in 22 countries, from Guatemala to India and from the UK to US.

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