"LOVING OR LOATHING LYNDA" A PILOT STUDY INVESTIGATION INTO THE INTEGRATION OF VIDEO E-LEARNING RESOURCES WITHIN AN UNDERGRADUATE LEISURE MANAGEMENT DEGREE UNIT

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Abstract

Universities are under increased pressure to respond to the continued development of technology and in incorporating e-learning throughout the Higher Education (HE) environment and infrastructure. This research carried out a pilot case study at Southampton Solent University, focusing on one aspect of e-learning (video tutorials from Lynda.com a global learning resource). Management and leadership video tutorials were selected and integrated into a Level five undergraduate leisure management unit (70 students) delivered over one academic year (14.15) to evaluate the effectiveness of the software as a learning tool for HE.

A mixed method triangulation approach was utilised combining analysis of secondary data produced from the Lynda.com monitoring software, alongside a questionnaire (replicated from similar research) through surveymonkey and SPSS, in addition to a focus group and collation of

open comments from the questionnaire (using content analysis) to explore more qualitative data to enrich the statistical outcomes.

The research reinforced previous literature regarding the complex nature of monitoring and evaluating e-learning in HE. This recognised the need for a systematic approach to the integration of e-learning within an HE curriculum and that clear objectives were needed including whether it is part of formative/ summative assessment or purely optional such as blended learning to enhance the student experience. Results indicated that whilst e-learning may not improve assessment performance it has the power and potential to significantly influence student satisfaction. In an increasingly competitive environment with high student expectations and demands, universities must be seen to be responding to the students 'digital desires' [1] of the modern age. Recommendations focused on, access, training and support, quality and relevance of e-learning, establishing incentives, maximising engagement (the student experience), the need for effective performance monitoring and evaluation and a 'holistic' and strategic university wide approach in responding to e-learning in HE.

Keywords

E-Learning, Higher Education (HE), Blended Learning, Information, Communication Technology (ICT), Video Streaming, Video Tutorials, Human Resources, Management and Leadership, Leisure, Tourism, Event And Adventure Management, Undergraduate, UK

1. Introduction

E-learning is no longer a new concept in higher education (HE) and as Donnison et al states: "there has been an increasing call to incorporate e-learning into HE curricula, learning and teaching as a means to improve student learning outcomes and to enrich the student experience." (2014, abstract.). Pressures on universities to embrace e-learning and more interactive/experiential learning techniques alongside and/or in contrast to more traditional methods are increasing. Ellis et al. (2013) recognise how universities over the last forty years have had to contend with many changes, political, social, cultural, economic and technological. They suggest that the latter being the most dramatic. However the other factors demonstrate the wider influences, and subsequently the more recent HE policies relating to inclusivity, widening participation and maximising the student experience and quality of teaching and learning

(particularly in light of the introduction of student fees). This is reinforced by the UK government's white paper 'Students at the Heart of the System' (BIS 2011) which sets out a range of HE reforms to address these and stressing the importance of 'more variety in modes of learning……" and to ensure the delivery of "innovative forms of HE" (BIS, 2011, p.3).

Over the last decade, extensive literature has examined research in the growth of e-learning as part of this modernisation of HE. Researchers such as Sharpe and Benfield (2005) explored the dramatic uptake of e-learning within HE and its impact for institutions, practitioners, and students, whilst the former, Laurillard (2004, 2007) analysed specific benefits of engagement ie cultural, intellectual, social, practical and even financial. Clegg et al (2010) provided a more critical perspective, challenging myths of government inspired policy towards information and communication technologies (ICT) and education and as they describe 'the irresistible power of globalisation' and the determining effects of technology. This reinforces previous research through studies such as Njenga and Fourie (2010) who challenged the 'compulsive enthusiasts' or 'techno-positivists' and the reality in delivery in HE. Research is extensive and growing but as Price and Kirkwood (2013) acknowledge, whilst e-learning in HE is widespread in more recent times, its educational effectiveness is open to question.

1.1 Rationale, Aims & Objectives

Video streaming and the use of related podcasts and online tutorial media is one such area of e-learning where evidence of its effectiveness in education is limited (Shephard 2003, Boster et al. 2007). Evans (2008) also recognised this describing how podcasts in particular were being utilised in the secondary educational sector but its use in HE as a learning tool for adults, was still to be established. Du Boulay et al. (2008) further reinforced this through their systematic review of literature relating to the effectiveness of e-learning, describing it as dynamic, complex and ever changing. They provided a range of recommendations for future research, concluding that e-learning has evolved from distance learning (ie an isolated learning form) into "technology rich environments" (2008, p.4), suggesting a more holistic, integrated approach to the delivery of teaching and learning in the HE environment. Two recommendations were proposed on the need to research 'student attitudes to different methods of e-learning' and 'the impact of e-learning in relation to assessment'. Based on these two recommendations and further informed by previous research within the last decade on the impact of video

tutorials/online e-learning resources in HE, such as DeVaney (2009), Njenga and Fourie (2010), Clegg et al (2010), Price and Kirkwood (2014), Islam et al (2015) etc, this investigation explored the impact and effectiveness of one particular aspect of e-learning in HE, using a case study approach focused on an undergraduate management based unit, utilising the global online learning company 'lynda.com'.

The aim was: ***To carry out a pilot study of a selected Lynda.com playlist, integrated into a Level 5 undergraduate management unit to evaluate the effectiveness of the software as a learning tool for HE.*** Objectives were to:

- Review the evolution of e-learning over the last decade and specifically the use of video e-learning within HE
- Carry out a pilot study of a selected Lynda.com playlist integrated into a Level 5 undergraduate management unit to measure the effectiveness of these video resources
- Evaluate the effectiveness of the software as a learning tool within HE

Objective one provided a background to the evolution and development of e-learning in HE and considered research that had already been undertaken on related software. It examined the impact / effectiveness of the use of e-software as a learning tool and reviewed and analysed the pros and cons of e-learning strategies, specifically in relation to HE. This provided the underpinning knowledge to undertake a pilot study using the online global learning resource 'Lynda.com'. This leading online learning company was established in 1995 with a mission 'to help you learn the skills to achieve your full potential' (Lynda.com 2015). This online learning company provides an extensive range of online learning resources in business, software, technology and creative skills and offers individual, corporate, academic and government subscriptions. Members have access to a video library of courses taught by recognised industry experts. Southampton Solent University purchased an academic subscription recently and has been undergoing trials in different curriculum areas.

For the purposes of this study Lynda.com modules relating to HR management and leadership were carefully selected and which most effectively linked to a single Level five undergraduate management unit. These video tutorials were then embedded within the scheme of work for delivery of the unit over the 2014.15 academic year. This reflected a 'blended learning'

approach and whilst students were recommended to engage in the Lynda.com modules (and with the incentive of certification for completion), it was not included as a compulsory element, as this could not be justified within the parameters of the unit specification. The pilot study was reviewed and evaluated using a research framework which brought together previous research methodology, mirroring the quantitative format from a previous video-tutorial research study (DeVaney 2009) to establish some comparability and the benefits of mixed method qualitative approaches utilised in similar e-learning studies such as King and Boyatt (2014) and Price and Kirkwood (2014).

2. Literature Review

2.1 Evolution of E-Learning in HE within the last decade and key themes

Parson et al (2009) recognised much before Ellis and Goodyear (2010) and Donnison et al (2014) the increasing pressure on universities to provide even more information and ICT resources to students and in line with the speed of technological development. However previous literature within the last decade, such as Sharpe and Benfield (2005), Jones and O'Shea (2004) and Laurillard (2004), (2007), lay the foundations for more recent research (Islam et al 2015) reinforcing the growth in e-learning within HE and the differing approaches, inconsistencies and anomalies in how universities have been engaging and embracing e-learning across intuitions in the UK and internationally. Salmon (2005) attempted to propose a strategic framework for e-learning and pedagogic innovation in HE, recognising the rather haphazard, piece-meal approach being undertaken likening it to metaphoric aviators learning to fly, and suggesting that institutes tend to spend too much time 'flapping' as opposed to 'flying' "the breakthrough to powered flight and subsequent flying for all came when the inventors rethought the conceptual approach and developed aircraft based upon fixed wings in a stead airflow" (Salmon 2005, p.201).

Salmon went on to suggest that universities were in transition from seeing e-learning as a new way of doing essentially the 'same thing', to seeing learning technologies, advancing beyond traditional classrooms to offer, essentially, something 'different'. As part of this Salmon introduced a strategic framework as illustrated in Figure 1, which provided a useful illustration to recognise the scope of e-learning within university environments, and proposals for maximising 'existing' e-learning resources (core capabilities and capacity) as well as recognising the need to

respond more radically to new and emerging hardware and software in line with university strategy as they become available. Laurillard (2004, (2007), share similar views, suggesting that universities need to build the means for e-learning to evolve and mature as part of the educational change process (reemphasised by BIS 2011 and related government policy) and so that it achieves the improved system of HE required. Kim and Bonk (2006) reflected similar views referring to the misconceptions and myths of integrating e-learning and the plethora of growing online resources which can cause turbulence to the HE environment and could be at risk of the 'perfect e-storm' (2006, p.22) if not managed in a systematic and strategic way. They further reiterated the importance of appropriate training and support to ensure that universities are able to respond to the changing demands of e-learning appropriately.

Cleveland-Innes et al. (2015) provides the most up to date review to further reinforce these perspectives and reinforcing Salmon's proposal for a more strategic approach but recognising the challenges that this presents to HE leaders, faculties and front line academics.
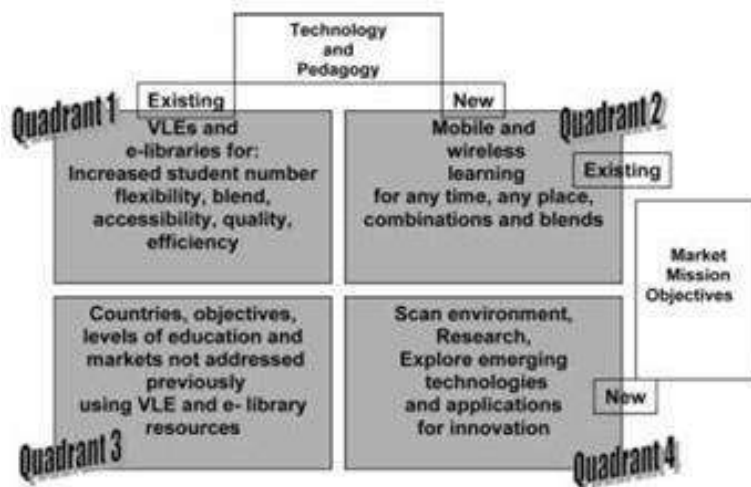
(Salmon 2005: 212)

Figure 1: *The e-learning and pedagogic innovation strategic framework*

Recognition of the need to embed e-learning in a structured, consistent and systematic way reinforced the importance of case study research so that outcomes can be used to inform strategic e-learning development for senior management/leadership teams (Cleveland-Innes et al.

2015). For the purposes of this investigation it was useful, not only to use Salmon's model (2005) to recognise the strategic breadth of technology and pedagogic opportunity in HE institutes but also to examine how effective the existing ICT resources within Southampton Solent University were in supporting the students abilities to engage in the video tutorials from Lynda.com, and potential barriers in accessing the website and resources.

Sharpe and Benfield (2005) can be seen to reflect some of the themes identified by Salmon (2005) during this period, but tended to examine this from the student perspective and how they responded to e-learning and the changes in pedagogic approaches. A number of other authors have explored similar perspectives such as Ellis and Goodyear (2010) who also reiterate Salmon's (2005) messages and the need for universities to take a more strategic and systematic approach. In particular they recognised that to enhance the student experience there needs to be a clear understanding of the relationship between the student experience of learning AND their environment, and that they are not independent of each other. They go on to suggest that the creation of an ecosystem within the university will enable adaption to change and that this should ensure a systematic approach to embracing e-learning at all levels. King and Boyatt's (2014), research again reinforced the importance of an appropriate institutional infrastructure ensuring sufficient resources and appropriate support/guidance to staff for effective implementation (echoing Kim and Bonk (2006). Beetham et al. (2014) undertook an interesting study more recently, focusing specifically on the student perspective of digital expectations (and desires), which concluded that expectations of access and services were high and rising, and most importantly, the implication that arose from the study that students would 'punish' universities that fail to meet their threshold digital expectations (ie through NSS and related surveys). Furthermore students whose experiences did not prepare them for the digital society are being failed, which would suggest failure to comply with government's agenda of 'students first' and in relation to employability BIS (2011). Beetham et al's (2014) outcomes reinforces the importance of case study investigations and in particular in helping to inform practice relating to how the university engages students in developing the digital environment, managing students' expectations and supporting students and staff. Themes addressed through this investigation.

Whilst the literature over the last decade makes clear the important of e-learning and HE institutes responding to the digital age, Clegg et al. (2003) introduced a more critical perspective,

challenging myths of government inspired policy towards information and communication technologies (ICT) and education and 'the irresistible power of globalisation' and the determining effects of technology. This was later reinforced with research such as Njenga and Fourie (2010) who challenged the 'compulsive enthusiasts' or 'techno-positivists' and the reality in delivery in HE. In contrast to the plethora of research promoting the benefits and opportunity of e-learning, Njenga and Fourie (2010) provide a more realistic perspectives and refer to other researchers such as Guri-Rosenblit (2005) and Robertson (2003) (cited in Njenga and Fourie 2010), who suggest a "change in the euphoria of e-learning" (2010, p.199). It could be argued that these researchers are just focusing more on the challenges recognised in other papers such as Salmon (2005), Sharpe and Benfield (2005), Kim and Bonks (2006), Ellis and Goodyear (2010) etc. However these more critical perspectives demonstrate the challenges faced by universities today in embracing e-learning effectively and successfully and in responding to the often complex stakeholder agendas. Research is extensive and growing to examine these different perspectives to aid and inform universities. Price and Kirkwood (2014) also acknowledge these complexities, and whilst recognising that e-learning in HE is widespread and growing, they suggest that in more recent times, educational effectiveness is increasingly open to question. This therefore raises the important issue of e-learning evaluation.

2.2 The Importance of Evaluation and Monitoring in E-Learning

In light of demands on HE to provide differentiation and a more contemporary and innovative delivery, in prioritising the 'student first' philosophy (BIS 2011) it is important that universities maximise the opportunities available with e-learning to contribute to this. However, it is just as important, arguably more so, to ensure that the effectiveness of such strategies and initiatives are measurable and provide evidence to reinforce this (Bouley et al. 2008). As outlined previously, literature suggests that e-learning provides a range of benefits to the learner, university and industry, providing fast and efficient tools for supporting more traditional learning and providing innovative / creative alternatives to engage learners, (Donnison et al. 2014) prepare them for transition to employment (Shopova 2014), where industry utilise e-learning extensively for recruitment, induction training etc, and to respond to different learning styles and the underpinning objectives of differentiation. However evidence to support this both in terms of measurable outcomes ie student assessment/performance results and less tangible outcomes ie

student opinion on resources/learning strategies, continues to be limited or sporadic at best (Price and Kirkwood 2014). Therefore this research looked to build on this evidence and to explore the criticisms, and challenges exposed by previous research.

Concern with the lack of evidence for the effectiveness of e-learning is reflective in literature spanning the last decade. MacDonald and Thompson (2005) is one paper that recognises the importance of quality e-learning experiences. They used the Demand-Driven Learning Model to evaluate an online Masters course. Exploring all stakeholders in the process it reinforced that all five elements of the model (structure, content, delivery, service and outcomes) must work in harmony to ensure quality e-learning. This research reinforced again the proposals of Salmon (2005) regarding the importance of a structured and systematised approach in the management and integration of e-learning, and proposed how the Demand-Driven learning model could be an effective mechanism for providing a holistic approach to evaluation. In relation to the research objectives for this investigation, only the student perspective was examined as opposed to all stakeholders. However MacDonald and Thompson's use of the Demand, Driven Learning Model, informed the study, with the five elements examined from the student perspective.

Kim and Bonk's (2006) research further reinforced the importance of evaluating e-learning, focusing specifically on assessment which was an area of particular focus for this case study. Outcomes suggested that evaluation of e-learning should involve comparison with 'face to face' delivery (ie more traditional modes). However they recognised that the results assumed online learning could replicate face to face and vice versa which is not always the case. As this case study investigation was focusing specifically on 'video tutorials (via Lynda.com), the importance of comparing face to face with the online resources was not recognised as important, particularly as Lynda.com was seen as an opportunity to 'enhance' learning as opposed to replace more traditional methods.

In relation to the impact of e-learning on assessment, Ozkan and Koseler (2009) suggested that there was again, little research available within educational organisations, whether purely web-based or as supportive tool through blended learning. The latter reflected the case study investigation more closely. Their research proposed a conceptual e-learning assessment model which was multi dimensions, involving quality of system, service, content, learner,

instructor and support, reflecting a similar approach to MacDonald and Thompson (2005). The outcomes of the research suggested that evaluation of these dimensions has the potential to significantly affect learners' perceived satisfaction.

As literature progressed across the decade, researchers continued to express concern at the limitations and variations in evaluation and availability of evidence to measure e-learning effectiveness, Jethro et al. (2012) reinforced this on a global scale on their research in Nigeria, focusing on 'process' and 'outcome' as two approaches to evaluating e-learning and recognising that investment in faculty, time, money and space are integral to this. An additional conclusion highlighted that 'blended' learning (much like the pilot case study) proved most effective in terms of student performance.   Recent research through Price and Kirkwood, (2014) continues to reflect previous literature regarding the limited evidence of evaluation of e-learning. However through their research they conclude that evidence only has a partial impact upon informing practice and influencing future e-learning in HE. They also suggest that problems occur due to the ambiguity of 'evidence' ie what constitutes evidence, what is the role and for whom it is intended. They suggest that these complexities need to be acknowledged in trying to inform practice and in driving change in teaching and learning technologies in HE. These outcomes were considered as part of the case study and informed the clarity of evidence to be included, ie assessment results, learner activity in accessing Lynda.com and both the questionnaire and focus group data from the student perspective.

2.3 Video-e-learning

Whilst this literature review has considered the wider perspective of e-learning and the digital age to inform the investigation, the pilot case study itself was based on one specific e-learning tool, that of online video-tutorials. Therefore it was recognised that a review of specific literature of video, e-learning, would be useful to help inform the investigation and to enable some comparability with previous research. Shephard (2003), more than a decade ago, provided a useful starting point. She referred initially to conventional video, recognising its existence for many years to support student learning and offers diverse opportunities a varying stages of the learning process. However her investigation focused on video streaming (online) which reflected more the growing influence of the internet in e-learning. Through her exploration of case studies she proposed a research agenda for streaming, which like much of the previous literature, focuses

heavily on the underlying importance of monitoring and evaluation of its use and impact. This was recognised as a continual theme throughout the literature review.

Zhang et al (2006) provided evidence to help evaluate the effectiveness of video use, in their investigation, comparing the use of learning environments with and without video and with and without interactive elements. Their conclusions demonstrated that learning environments which utilised videos and provided interactive opportunities, performed significantly better and suggesting that interactive videos be integrated into e-learning systems. This was acknowledged in relation to the pilot case study which offered some interactive opportunities through supporting online worksheets, although these were not compulsory. Boster et al. (2006) reflects previous literature that there is an expectation that e-learning such as video streaming, enhances educational performance. However they suggest that results are inconsistent and therefore fuel the importance of evaluation. From their research outcomes suggested that exposure to video streaming did have a positive effective on performance for some but not all levels of students in the US, again reinforcing inconsistencies? In their conclusions they suggested that a more thorough examination of demographic data may enhance evaluation and this was included in the pilot case study. However it was recognised that this investigation focused on younger students and therefore was limited in its ability to inform this investigation.

Fill and Ottewill's (2006) research on the other hand, provided more opportunities to inform the investigation and to offer some comparable data. Based on UK university students their paper explored the potential effectiveness of video streams as learning resources in HE and taking into account the context of the more contemporary and future potential in ICT technologies. In relation to this investigation their outcomes explored the benefits of a blended approach (as opposed to stand alone) and the future accessibility of mobile learning (ie hand held devices etc. For the purposes of this investigation students were asked where they accessed Lynda.com to provide some data on current modes used. This links to Evans (2008) research which focused specifically on m-learning (mobile) and the use of podcasts from the student perspective. Parson et al (2009) also undertook a similar investigation and outcomes for both were comparable. Both studies reinforced previous research regarding the benefits of blended learning and that the use of podcasts were a beneficial additional research alongside more

traditional lectures slides etc and as a tool for revision / assessment (and incorporating distance learning). This would suggest that podcasts in particular offer innovative learning tools for HE.

DeVaney (2009) focused on video tutorials online, which were more comparable to the pilot study than podcasts and provided a useful structure for replication. The research focused on graduate level study utilising online video tutorials and whilst the course was based on statistics (as opposed to management), the format was appropriate to this investigations aim and objectives, based on surveying student attitudes. Results suggested again, that video presentations could provide e-learning tools as effective (if not more so) that traditional face to face delivery. The main questions utilised in the research were underpinned by the outcomes of MacDonald and Thompson (2005) and Ozkan and Koseler's (2009) research regarding the use of multi-dimensions in successful evaluation of e-learning. Whilst DeVaney's research only focused on students (as opposed to other stakeholders), questions addressed quality of systems/structure, service, content and delivery and by replicating this research method for this research, provided a clear framework to the methodology and clear parameters and a structure for the discussion of results and conclusions.

3. Methodology

3.1 Case Study

The methodology undertaken for this research focused on a pilot case study within a university setting (Southampton Solent University) and specifically on one undergraduate Level five management unit. This was beneficial in being able to 'capture reality' in an investigation (Curtis et al. 2014), providing research which can inform future teaching and learning strategies within the university. The university recently purchased a trial academic subscription for access to Lynda.com and pilot studies have been undertaken to evaluate the effectiveness of these online video tutorials when integrated into a range of undergraduate curricula and to see whether it is beneficial in enhancing the student experience and the quality and outcomes (performance) in teaching and learning strategies. Therefore this study was based on informing future practice (Foreman-Peck and Winch 2010) at the university, regarding the integration of e-learning resources such as online video tutorials, and to evaluate whether the subscription of Lynda.com

should be extended across the university setting as a permanent e-learning resource to aid students and academics.

The Managing Services Operations (MSO) unit (LEI439) selected for this pilot study, has four key learning objectives which it was felt was most effectively aligned to the learning material/subjects available on Lynda.com regarding management and leadership. This is a core unit delivered to approximately seventy Level 5 students across three leisure service management degree programmes: BA Hons Event Management / Tourism Management and Adventure and Extreme Sports Management. The nature of these courses reflects a more 'contemporary' example of HE courses ie they are more vocational and real world based (Symes and McIntyre 2000). This was recognised as particularly appropriate to the study, acknowledging the wider government HE agenda of widening participation/inclusivity, maximising employability and focusing on the student first, therefore broadening beyond traditional subjects and methods of HE delivery and looking instead to provide more dynamic, engaging and interactive teaching and learning (BIS 2011). Leisure students tend to have a more vocational approach to their education and learning styles often focus more on active learning, ie more practical, interactive 'learning by doing' methods, as opposed to a more traditional HE academic culture (Dale and McCarthy 2006). Therefore Lynda.com video tutorials provided the perfect resources to evaluate more creative/interactive learning strategies. Students were also provided with a specialist ICT lecture on Lynda.com as part of the unit and with ongoing ICT support by an allocated Lynda.com university technician.

3.2 Mixed methods approach

Reflecting the research methods of King and Boyatt (2014) and Price and Kirkwood (2014), the ontology for this case study research focused on a mixed method approach combining the benefits of both quantitative and qualitative techniques (Johnson and Chrisitensen 2011). Quantitative methods used a combination of primary and secondary data. Secondary data was collated from the online monitoring system available within Lynda.com enabling usage statistics to be analysed from both course and individual student perspective and cross referenced with student performance in assessments. This enabled patterns of usage to be monitored and analysed as the unit delivery progressed and enabled comparisons to be made in relation to performance and those accessing or not accessing Lynda.com. The primary method focused on a

post unit questionnaire using a Likert system to measure the effectiveness of the software from the student's perspective. Initially it was considered that the study would be purely quantitative and would provide a deductive epistemology, replicating solely DeVaney's (2009) questionnaire format on the evaluation of video tutorials and demographic analysis. This was seen as beneficial for statistical comparability and with hypotheses based on examining whether Lynda.com resources had a positive effective on academic achievement and with deeper demographic analysis to recognise any statistical correlations /patterns of significance. However as the outcomes of this research indicated that video tutorials may not be the 'magic pill' that enhances learning for all students, and that differing learning styles / needs of students may vary and will not necessarily have the same benefits for all (DeVaney 2009), it was decided that the inclusion of a qualitative focus group, would provide more enriched data, based on student thoughts, feelings and opinion, ie participant experiences (King and Boyatt 2014) to support and to provide more meaning and strength to the statistical data (Robson 2002). The focus group was recorded and flip chart also used to initially engage participants, encourage interaction among participants and to record initial feedback (Litosseleti 2003).

This combination of methods and inclusion of more arguably subjective / opinion based qualitative data, therefore reflected a more inductive process which aligns itself to a post positivist, interpretive epistemology, enabling statistical data to be complemented by sociological, qualitative based narrative (Punch 2013). As a mixed method approach was selected, and with a combination of both primary and secondary data from more than one perspective, triangulation (Cohen et al 2009) provided the framework for the study and which enabled a coherent picture to be formed in addressing the research aim and objectives (Gray 2009). This embraced Price and Kirkwood's (2014) research approach where they combined the review of literature (secondary) with questionnaires and interviews and based on deriving knowledge about problems in real world, practice orientated situations (Crewell 2003 cited in Price and Kirkwood 2014). Criticisms of this approach suggest that triangulation is at risk of collating data which is just more of the same (Flick 2009). However the data collated for this research was clearly from different perspectives to help respond to the aim and objectives, and reflects more Robson's (2002) opinion that multiple sources enhance the rigour of research.

These methods provided an effective means for measuring both usage and student perspectives on the effectiveness of Lynda.com to enhance learning on the management unit specifically.

3.3 Data Analysis Methods

Analysis of the Lynda.com raw data was analysed through the statistical charts / graphs produced by the software. The sample population were given registration to access the site at the start of the academic year and their online activity on the site was recorded throughout the academic year that the unit was delivered. This enabled effective analysis of usage as the unit progressed. Whilst this did not involve complex analysis, it provided a stable foundation with which to progress primary data analysis, and demonstrated the realistic capabilities (and limitations) of the lynda.com software as an evaluative tool. The post unit questionnaire was designed and completed using the electronic, commercial online resource surveymonkey. This provided a clear and simplistic design format which was utilised in a straightforward, user-friendly manner and easily accessible for the sample population of students (Cottrell and McKenzie 2011). The data was then transferred to the far more comprehensive SPSS software which provided the opportunity to perform highly complex statistical data manipulation (Punch and Oancea 2014) through cross tabulation, frequency distribution and tests such as ANOVA to assess significance of relationships within the data and potentially to explore differences within demographics and other variables. In addition to this the open questions used a more qualitative method for analysis, combined with the data from the focus group. A simple content analysis was adopted for this qualitative data providing a systematic process of 'coding' to examine recurring patterns, provide labels and then categorise /theme accordingly. (Wilkinson cited in Silverman 2011). The approach was based on recognition of emerging themes as opposed to those that were preconceived. The semi structured format of the focus group resulted in some initial categories/themes being present, although a thorough analysis of the qualitative data (including the open question text), allowed for additional categories/themes to emerge (Taylor-Powell and Renner 2003).

4. Data Analysis & Results

The sample population analysed, involved 67 Level five students active and enrolled on the Managing Services Operations (LEI439) unit, broken down into the following subject areas:

- BA Hons Tourism Management (5 students)
- BA Hons Events Management (53 students)
- BA Hons Adventure and Extreme Sports Management (9 students)

76 students were originally registered on lynda.com at the start of the year (29.09.14) but 9 students failed to complete the unit and/or were withdrawn so these have been omitted from the analysis. The following section provides a break down and analysis of usage, using the Lynda.com monitoring software and in relation to performance.

4.1 Secondary data analysis of usage & performance

Lynda.com provided the author (and unit tutor) with administrative access to the students registered from Managing Services Operations (LEI439) unit. The following playlists were assigned to students:

Part A: Soft Factors of Management – Period 1 (October 2014 – January 2015)

- Management Fundamentals
- Leadership Fundamentals
- Leadership Insights
- Motivating & Engaging Employees
- Managing Teams

Part B: Hard Factors of Management – Period 2 (January 2015 – April 2015)

- Hiring Your Team
- On-boarding New Hirers
- Performance Review Fundamentals
- Delivering Employee Feedback
- Letting an Employee Go

Figure 2 provides an overview of the administrative screen including a summary view and list of available reports for deeper analysis for the use of Lynda.com resources. The software provides a range of reports from total usage summary through to a breakdown of individual access, certification and ranking.
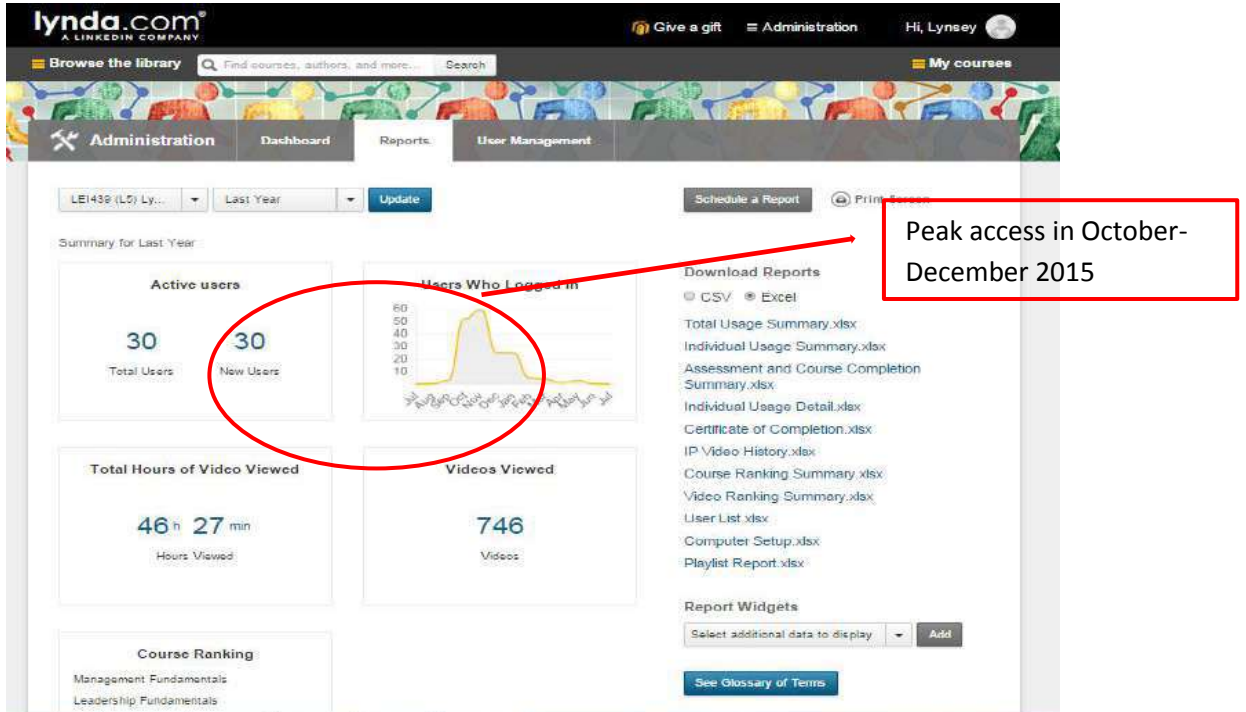
Figure 2: *Lynda.com monitoring administration screen shot*

Of the 67 active students studying the MSO unit, 30 users (45%) logged in and accessed Lynda.com through the academic year and period of the course. 46 hours and twenty seven minutes viewing time was recorded and 747 videos were viewed. However the average viewing time per login was 15 minutes which would suggest students' concentration was limited and/or distractions potentially influenced their viewing. Figure 3 provides a breakdown of the 30 users that were logged in and active on Lynda.com during the academic year. As illustrated, the event management course had the largest number represented, (40% of course area, 21 out of a possible 53), tourism/cruise management (80% of course area, 4/5) and Adventure and Extreme Sports Management (56% of course area 5/9).
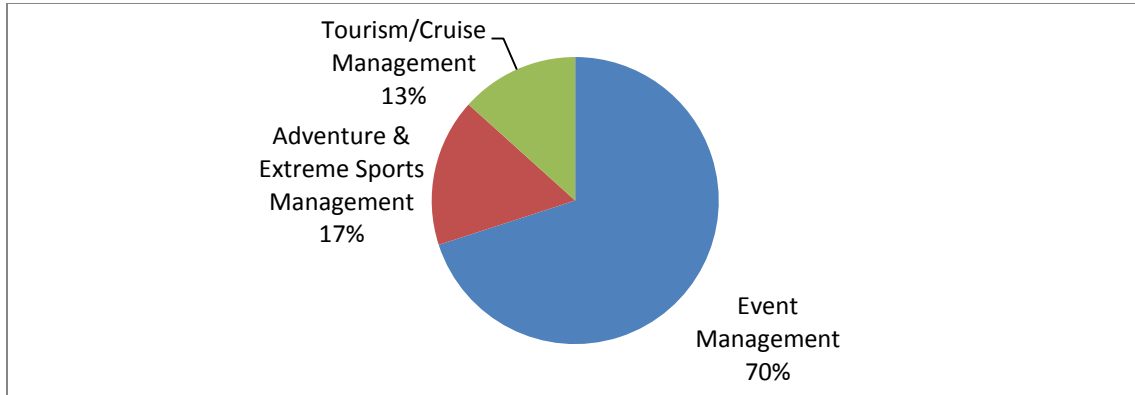
Figure 3: *Breakdown of engagement with Lynda.com by course*

Statistics illustrated that the majority of users logged in at the start of the academic year and within the first month of unit delivery; 25 users in October 2014, 29 in November 2014 and 30 in January 2015. This suggested that students were most engaged in the unit and motivated to use Lynda.com during the first three months from October-December 2014 and this was expected, based on the introduction to Lynda.com in the first few weeks of the unit (including a specialist lecture delivered by an ICT technician) and on reflection of the scheme of work and allocation of video tutorials alongside taught elements of the programme. It should be noted that there were some reports in the first few weeks of students having difficulty logging in and so the ICT technician had to assist with this, although the issue was resolved for those students that raised their concerns. This reinforced previous literature regarding the need for technical support to aid student engagement with e-learning (Laurillard 2004, 2007, Kim and Bonks 2006, Cleveland-Innes 2015). There was a drop from end of December to January, but a slight increase again in mid January –February 2015 when the second period started and again video tutorials were integrated into the taught delivery (as per the scheme of work). However it should be noted that there were only half as many students logging on during the second period in comparison to the busiest stage of the first period. This could suggest a negative response to the first set of video tutorials and/or a general apathy, reduction in student engagement with learning (which is often the case for students after Christmas).

Examining individual results in detail it can be seen that some students engaged consistently and thoroughly with Lynda.com and built up a significant number of viewed hours

and completion of certification. Figure 4 below provides a breakdown of student usage including hours viewed, number of log-ins and certifications. The two columns on the right then provide performance results for the unit and comparison with the average grade for each student for the year (plus or minus).

Student (code)	Distinct courses viewed	Distinct videos viewed	Total views	Hours viewed	Logins	Completed certification	Unit Assessment result	Comparison with Level 5 average performance
JS	10	226	227	15	8	10	68%	-3%
LA	3	76	77	5	16	3	83%	+8%
MF	5	62	79	5	12	0	68%	+4%
KN	3	57	59	4	11	2	62%	+1%
SD	2	49	54	3.5	33	1	63%	+2%
CC	1	32	34	2	9	1	26%	n/a (late withdrawal)
RL	2	33	34	2	13	1	83%	+13%
GH	1	32	32	2	2	1	71%	+4%
OS	1	32	32	2	1	1	76%	+11%
MA	5	36	38	2	31	4	58%	+4%
AN	1	17	17	1	1	0	64%	+1%
BP	1	25	25	1	3	1	60%	+8%
BD	2	11	12	0.5	5	0	68%	+13%
AM	1	8	9	0.5	8	0	80%	+9%
JL	1	6	6	0.5	6	0	70%	+3%
KG	1	3	3	0.25	2	0	50%	+1%
NS	1	3	3	0.25	1	0	80%	+ 8%
CR	1	4	4	0	1	0	74%	-2%
MM	1	1	1	0	1	0	57%	+ 2%
GC	0	0	0	0	1	0	62%	-5%
ED	0	0	0	0	1	0	52%	+9%
CE	0	0	0	0	1	0	74%	+11%
NK	0	0	0	0	1	0	42%	-6%
AL	0	0	0	0	2	0	11%	-15%
SP	0	0	0	0	1	0	0%	n/a (transferred)
MP	0	0	0	0	1	0	47%	+6%
MR	0	0	0	0	2	0	40%	+3%
GT	0	0	0	0	1	0	57%	+6%
BV	0	0	0	0	1	0	62%	+1%
KW	0	0	0	0	1	0	64%	0

Figure 4: *Breakdown of student engagement with Lynda.com and performance results*

From Figure 4 it is clear that there was mixed engagement with Lynda.com. Of the 30 students that were active users, only 15 logged in once or twice and viewed less than 15 minutes

of videos. Five logged in for up to an hour of viewing and nine logged in between 1-5 hours viewing. One student logged 15 hours of video views. Patterns of usage varied but generally the more students logged in and spent longer viewing videos, the more they explored different videos and courses available on Lynda.com, furthermore the statistics show that students widened their access beyond the playlist.

Twenty five courses were completed with certification by ten different students. Figure 5 displays the ranking of courses based on usage / hours viewed and completion. It is clear that the first video-tutorial was the most popular with 8 users completing the module and views of over 359 records. However from the initial play list order, usage significantly dropped from the first module which would indicate that students did not respond positively to the video and therefore engagement and motivation was effected from this point onwards.

KEY

Playlist units		Additional units	

Rank	Course	Duration	Total views	Unique users	Hours viewed	Users completed
1	Management Fundamentals	2h 9m	359	15	23.81	8
2	Leadership Fundamentals	1h 24m	92	6	5.46	3
3	Hiring Your Team	1h 14m	43	2	2.47	2
4	Leadership Insights from Dan Rockwell	45m 36s	33	2	1.5	1
5	Motivating and Engaging Employees	1h 50m	32	2	2.21	1
6	Performance Review Fundamentals	2h 20m	28	1	2.34	1
7	Designing a Resume	1h 6m	25	1	1.11	1
8	Managing Teams	1h 23m	22	1	1.39	1
9	Letting an Employee Go	1h 33m	21	1	1.56	1
10	Delivering Employee Feedback	1h 7m	18	1	1.12	1
11	Onboarding New Hires	1h 0m	17	1	1	1
12	Ideas that Resonate	36m 0s	14	1	0.59	1
13	Management Tips	4h 50m	10	1	0.4	0
14	Top 5 YouTube Channel Tips	13m 48s	8	1	0.3	1
15	Top 5 Tips for Search-Friendly Press Releases	10m 12s	6	1	0.17	1

16	Building an Online Community	25m 48s	5	1	0.43	1
16	Writing Marketing Copy	1h 51m	5	1	0.29	0
17	Financial Literacy: Reading Financial Reports	1h 25m	4	1	0.08	0
18	Social Media Marketing with Facebook and Twitter	5h 27m	2	1	0.17	0
19	How to use lynda.com	1h 22m	1	1	0.03	0
19	Access 2013 Power Tips	2h 50m	1	1	0.02	0

Figure 5: *Analysis of course playlist views/completion & wider course access*

In terms of the potential impact of Lynda.com video tutorials on student performance, statistics would suggest that there little evidence emerging from the data to provide any strength that the video-tutorials have had a positive impact on performance. In Figure 4 the results for MSO LEI439 are illustrated and there are no patterns emerging from the grades. For example the student who accessed Lynda.com the most (code JS) had an overall grade of 68% when compared with their overall Level 5 average grade was marginally down. The second student (code LA) did have an increase in the unit from their grade average (+8%) but there is no evidence to directly link access to lynda.com to this result. Had there been patterns emerging which showed a generally higher performance grade for students accessing Lynda.com more, then there could have been some suggestion of a correlation. However validity and reliability of this would also have been limited as there are so many other influencing factors. For example, it could be argued that students who accessed Lynda.com are generally more conscientious and engaged with learning and would therefore respond positively in utilising numerous supportive learning tools as part of the unit's delivery, the actual impact of the video-tutorials may not have effected their actual grades at all. The average grade for the 30 students who accessed Lynda.com was 59%, this is slightly above the average result for the whole 67 students on the MSO (LEI439) unit of 54%. However whilst this demonstrates a positive result, there is no direct evidence to relate this to Lynda.com. Furthermore the average result for the same unit last year (2013/14) when Lynda.com was not part of the delivery mechanism was again 54% which would suggest that there is little to correlate these video-tutorials with the performance of the course. However, whilst this analysis may appear quite disappointing, in isolation, and specifically in relation to performance, it does not necessarily mean that it did not have a positive impact on the overall student experience. As the literature has demonstrated, there are contrasting perspectives

on the benefits/criticisms of e-learning. For example, Njenga and Fourie (2010) could argue that this lack of increased performance, substantiates their view that the 'techno-positivists' are at work, promoting benefits that do not exist. However the likes of Donnison et al. (2014) and Shopova (2014) are more likely to focus on the more holistic impact on the student experience and as Beetham et al. (2014) suggest, failure of universities to respond to the needs and demands of students could be costly in the future in terms of student satisfaction.

4.2 Analysis of student engagement and attitude with Lynda.com

4.2.1 Quantitative results - questionnaire

Out of the original cohort of 67 registered for the MSO (LEI439) unit and Lynda.com, 28 completed the questionnaire although one only completed the first question so was omitted from analysis. Whilst the actual number of completed questionnaires was relatively low, a response rate of 42% of the available sample provided strength to how representative it was of the population and therefore strengthened validity and reliability of the data.

Q1 identified student codes (to maximise confidentiality). Although anonymity could not be guaranteed, analysis by student code, as opposed to names limited exposure /identity and only the author (tutor) for the unit had administrative access to correlate performance grades, Lynda.com engagement and questionnaire completion together. Of the 27 that completed the questionnaire 24 (80%) were also one of the 30 active Lynda.com enrolees. This meant that 3 did not access Lynda.com (20%), as illustrated in Q8, regarding access and usage. This was a disappointing statistic as whilst it was useful to have good response rates for users of Lynda.com, it limited the opportunity for feedback from those that chose not to engage. Furthermore it suggested that those unwilling to engage with e-learning were less inclined to engage with feedback. This would indicate that in the future there is a need focus on why students do not engage with the e-learning tools. In terms of response rates from different courses, this is illustrated in Figure 6, Q2 and reflects a similar split to the actual access statistics to Lynda.com.
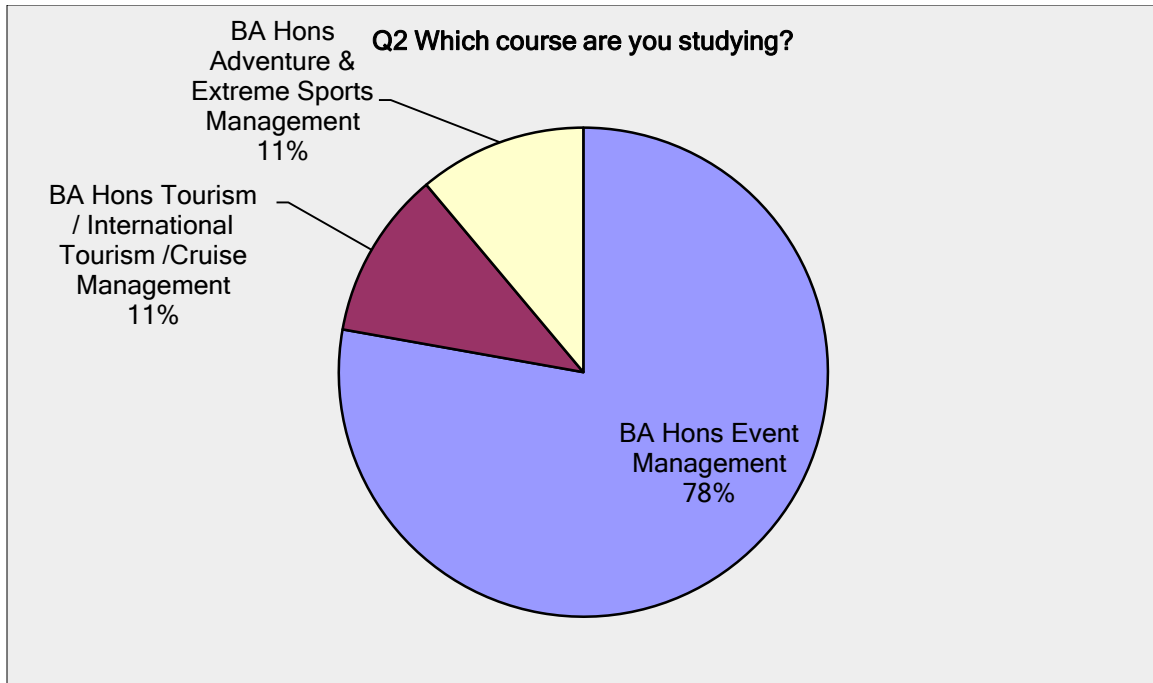
Figure 6: *Course breakdown*

In summary the gender split for completion was 60% females and 40% males. In terms of ethnic background, 79% were white British, 7% Mixed / multiple ethnic groups: (white/black Caribbean), 4% Asian/Asian British: Indian, 4% black British African, 4% black British Caribbean, 4% Preferred not to answer. All respondents were within the 18-24 age group. Due to the small sample there were no significant patterns / correlations between demographic data and other questions. Boster et al (2006) and DeVaney (2009) had indicated that demographic information was an area for future development, but for the purposes of this study, no significant issues were highlighted.

Q6 enquired as to the primary location for internet connection with 96% selecting their term time home (accommodation) and 4% university. This was a particularly interesting statistic as it strongly indicated that students prefer to engage in e-learning /online activity independently from the university. Q7 as illustrated in Figure 7 identified that the majority of access was via laptop computers, although smartphones were 30% which demonstrate the influence and potential for m-learning with the growth of mobile digital hardware and software as recognised by Evans (2008).
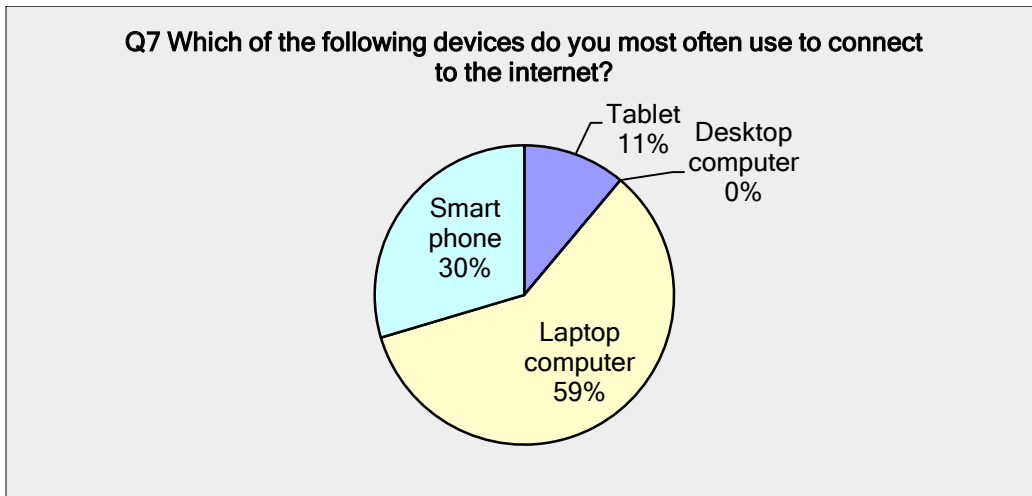
Q7 Which of the following devices do you most often use to connect to the internet?

Tablet 11%

Desktop computer 0%

Smart phone 30%

Laptop computer 59%

Figure 7: *Devices used*

Figure 8, Q8 not only distinguished the number of students that logged into Lynda.com and those that did not, but it also indicated patterns of use, with numbers declining as access increased. This reinforced the Lynda.com monitoring data which showed a sharp decline in general use and access after the initial video tutorial was watched. Again emphasising that the quality of the first video-tutorial may well have had an impact on subsequent student engagement.
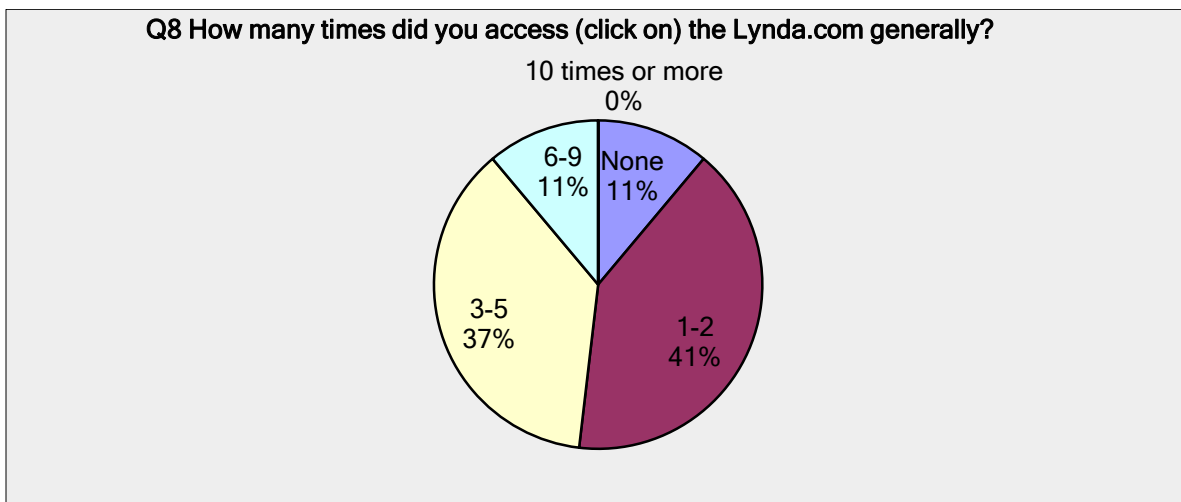
Q8 How many times did you access (click on) the Lynda.com generally?

10 times or more 0%

6-9 11%

None 11%

3-5 37%

1-2 41%

Figure 8: *Access to Lynda.com*

Figure 9, Q9 was particularly significant as it illustrated patterns of usage for the allocated play list. As had previously been identified through the Lynda.com monitoring software, usage declined from the first video tutorial. Management Fundamentals began with over 60% of respondents starting or completing the tutorials but then there was a general pattern of decline until the final module 'Letting an Employee Go' and the additional videos outside of the playlist which had less than 15% logging on. It is also interesting to identify that the highest completion rate to certification was still only just over 20%, suggesting that this had not proved to be an incentive for completion.

Q10 was particularly significant with each category replicated from DeVaney's (2009) survey. Figure 10 presents clearly the breakdown of each sub question and the likert scale (1-5) that was provided through text as opposed to numbers. Figure 11 provides a bar chart to help illustrate the allocation of scores. Generally the results reflected a relatively positive response to Lynda.com. In particular level of 'interest' was positive with around 65% in agreement, and factors relating to ease of information / use of software were quite high in agreement (60-70%). However only 35% indicated that tutorials were actually enjoyable, which is a particular area of concern, along with over 40% that disagreed that the software provided better levels of understanding in comparison to traditional textbook and MyCourse resources. This would suggest that Lynda.com was not entirely favourable for students and nor did it offer a better or enhanced learning opportunity.
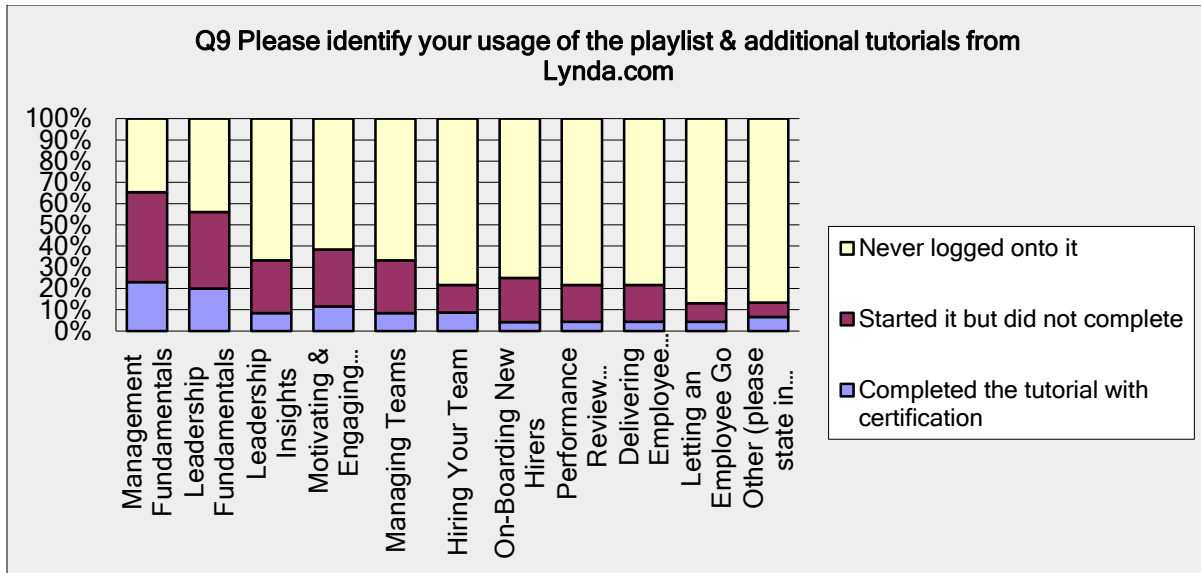
Figure 9: *Allocation usage per module Q9*

Technical difficulties were relatively low with only 30% indicating that they had some problems. This would suggest that the way in which Lynda.com was set up and integrated into the unit (and the technical support provided), had been relatively effective, reinforcing Kim and Bonk (2006) and King and Boyatt (2014) who expressed the importance of appropriate technical support for the integration of e-learning. 60% also stated that they would recommend the use of Lynda.com for other classes which also reflects a fairly positive response, although reasoning for not recommending would have been useful. It should be recognised that this was significantly lower than DeVaney's results which were at 93% and furthermore, DeVaney's statistics for enjoyment were significantly higher at 75% agreement. However it should be recognised that the software and undergraduate course used for the pilot was different and therefore results were not expected to be the same due to such differing variables and influencing factors. This further reinforces Symes and McIntyre (2000) of the more vocational leisure learner which reflects the cohort being investigated here, in comparison to DeVaney's statistics students.

In hindsight the use of 'uncertain' for this pilot study, was unnecessary and potentially affected the strength of the data and validity /reliability. A large proportion of responses across the sub questions (between 20-50%) selected this midpoint, when perhaps a 1-4 likert scale would have been more effective in removing the opportunity to 'sit on the fence' (Russell 2011).

Q10 To what extent do you agree with the following statements regarding the Lynda.com online video resources (tutorials)?					
Answer Options	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
The tutorials were interesting	1	16	6	3	0
The tutorials were enjoyable	1	8	12	3	2
The length of the tutorials was appropriate for the information	0	9	13	3	1
The information was provided in a straightforward and easy to understand manner	1	16	8	1	0
Compared to textbook & MyCourse learning resources I was able to better understand the material by viewing the tutorials	0	9	11	3	3
I had technical difficulties when trying to view the tutorials	1	7	7	8	3
The Lynda.com software was easy to use	4	14	6	2	0
The tutorials met my needs	1	13	10	2	0
I would recommend the use of tutorials in other classes	4	11	7	2	1

Figure 10: *Summary of student attitudes to Lynda.com (Q10)*

Q 8, 9 and 10 also had opportunity for open comments. The analysis of this narration is discussed in section 5.2.2. and provided an opportunity for more enriched data to help make sense of the statistical analysis.
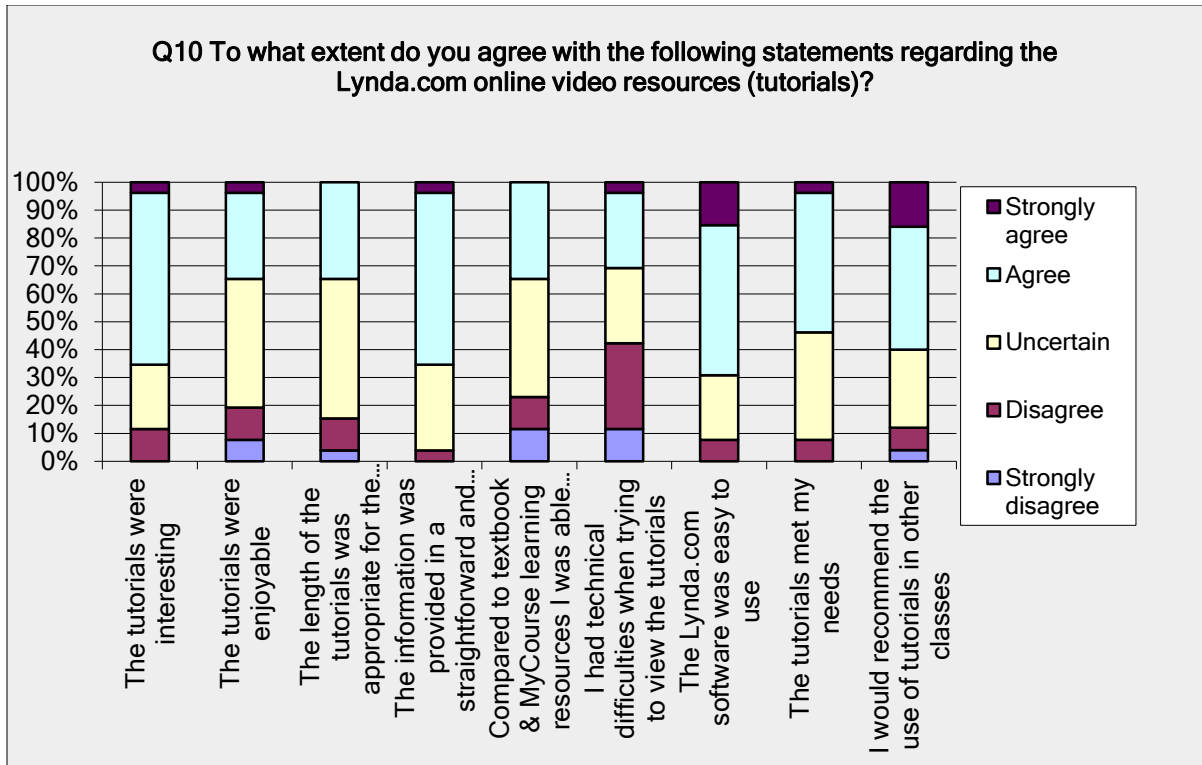
Figure 11: *Q10 Bar chart illustration of student attitudes of Lynda.com (Q10)*

In order to provide more detailed analysis SPSS was used to explore deeper statistical patterns and correlations between variables where relevant. Initially a one way ANOVA was completed to compare question 10 regarding student attitudes by each of the three leisure management degree areas (tourism, events and adventure) but this did not highlight any significant values. However this does provide a positive outcome to suggest that students with 'leisure' related subjects all share similar opinions / expectations on e-learning tools. It is also more widely reassuring where these three courses are brought together to be taught MSO LEI439.

Due to the patterns emerging about the first play list video potentially influencing the rest of the Lynda.com materials and subsequent student attitudes, an ANOVA was completed to look at Q10 (attitudes) in relation to Q9 drawing out the first (Management Fundamentals) and last module (Letting an Employee Go). Figure 12 illustrates that there was a significance which reinforces the view that students became disengaged and satisfaction and opinion of Lynda.com decreased over the period of the playlists and the academic year delivery.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.164	1	6.164	14.516	**.000**
Within Groups	19.958	47	.425		
Total	26.122	48			

Figure 12: *Q10 (attitudes) compared with the first & last Lynda.com playlist modules (Q9)*

Further analysis as illustrated in Figure 13 demonstrated that the mean likert grade 1-5 (disagree to agree) reduced significantly from the first to the last module, further evidencing that student satisfaction with the tutorials (in all of the attitude variables from Q10) decreased from the start to the end of the playlist. It should be noted that even the first module's mean was low.

Statistics

		Management fundamentals	Letting employees go
N	Valid	26	23
	Missing	30	33
Mean		*1.8846*	*1.1739*
Std. Deviation		.76561	.49103

Figure 13: *Comparison of student satisfaction (Q10 attitudes) from first the final playlist module*

A frequencies test was also run to compare specific variables of Q10 (student attitudes) with those that actually completed the certification (from Q9) for the first 5 units in the playlist (Part A) as illustrated in Figure 14. This evidenced that those that actually completed the certificates had positive responses in terms if interest, enjoyment and satisfaction with duration, with all mean statistics in 'agreement' (based on a likert from 1-5). A further test was completed to compare with students that logged on but did not complete. However there were no significant values identified.

Statistics

		Interesting	Enjoyable	Duration
N	Valid	7	7	7
	Missing	0	0	0
Mean		3.7143	3.2857	3.0000
Std. Deviation		.75593	.75593	.81650

Figure 14: *Comparing Q10 variables (student attitude) with those that completed the certificates (Q9) for Part A of the Playlist*

A further table was completed for those that had completed the second playlist (Part B). This is illustrated in Figure 15 and suggests that interest and enjoyment scores increased further, whilst satisfaction with duration decreased. There are limitations with the validity and reliability of this data as only two completed certification for the second playlist. It could however suggest that the second Playlist had the potential to be more interesting / enjoyable, but the criticisms of the first few modules resulted in disengagement and lack of completion.

Statistics

		Interesting	Enjoyable	Duration
N	Valid	2	2	2
	Missing	0	0	0
Mean		4.0000	3.5000	2.0000
Std. Deviation		.00000	.70711	.00000

Figure 15: *Comparing Q10 variables (student attitude) with those that completed the certificates (Q9) for Part B of the Playlist*

The SPSS analysis was able to provide some additional data and findings to reinforce the initial analysis of raw data and secondary data from Lynda.com monitoring software. It was recognised that there were limitations to the analysis and particularly due students general disengagement of the modules at the time progressed. However the qualitative results provided further detail to help explore the patterns and themes emerging from the research.

4.2.2 Qualitative results – focus group and open question narrative

Content analysis was undertaken to identify recurring words / labels and patterns to draw together categories. Additional material in the form of appendices is available on request. The four main themes which have developed from the qualitative data have been analysed and the main outcomes are detailed below *n.b. For the purposes of referencing quotes, codes are used eg FG.8.S8 (Focus group, question 8 student 8) and OC.9.b (open comments, question 9 comment b).*

- *Theme 1: Time & Duration*

  Numerous comments were made on the time consuming nature of engaging in additional learning resources ie video tutorials, alongside taught elements of the unit. This also linked to other recurring topics such as pressures / priorities outside of university: ***"Does not fit in with social life and jobs"*** (FG.8.S8)…. ***"at the beginning of term I was working two jobs as well as having hand ins"*** (OC.8.d). As opposed to seeing it as a complimentary learning aid to independent learning, the data suggested that it was seen more as an additional pressure.

  Alongside pressure, 'time' in relation to the videos themselves (ie duration), were also particularly significant with continued and repeated commentary that the videos were too long: ***"It is very time consuming"*** (FG.8.S6). One in particular made it clear that if they were not 5-10 mins then they would not engage "***if it says it's more than 30 minutes it's not happening!"*** (FG.6.S9) ***"the shorter ones were better – for others they talked too much and I gave up"*** (FG.6.S9). This reinforced results from the quantitative research where 65% responded with 'uncertain' or disagree in relation to the length of the tutorials.

  There were positive comments about the videos having potential benefits for example describing that it ***"it breaks the time up"*** (FG.12.S8) ie used in taught sessions and/or through independent learning videos "***so you can recap from the lectures, just short snippets, visual learners, put information together, I personally find that quite useful"*** (FG.12.S6)….. ***"I find it helpful if it's something short – as it applies to real life situations"*** (FG.12.S6). This also demonstrates how students are keen for e-learning to be applied and related to real world, industry scenarios. Unfortunately the overwhelming

response that videos were too long, limited the benefits and resulted in distraction and apathy to engage further. *"They can be very long and tedious, requires a lot of time to sit and watch all the videos"* (OC.10.d)… *"Honestly, I also found it a little bit long winded"* (OC.8.f). This reflected the quantitative feedback also, and in particular the Management Fundamentals module which was the longest video (more than 2hours). As the first video in the playlist it had the most views but appeared to have a catastrophic impact on repeat access. This then also had huge impact on theme (4) regarding incentive and engagement.

- *Theme 2: Access / Support*

Underpinning the other themes was the technical, structural and support related elements for the Lynda.com system and its integration into the taught unit MSO (LEI439). As MacDonald and Thompson (2005) and Ozkan and Koselar (2009) made clear regarding multi dimensions: the structure, support, quality of e-learning is essential to provide positive outcomes for students. Feedback was fairly positive here, *"I thought it was quite systematic - the topics….…..I accessed it easily*" (FG.5.S6)….. *"the headings and stuff are good and, like it's in good sections"* (FG.5.S2) Some students also recognised the technical support *"at first I could not even get onto it – I emailed you and it was sorted out really quickly"* (FG.5.S2) and demonstrating the speed at which support was provided if problems occurred. However it was apparent that some students struggled in accessing the site and some were put off by this "*it was quite a long process to get to it and I could not find the right videos and stuff and put me off a bit at first"* (FG.5.S2)….. *"Found it a little bit confusing, and preferred to use sites that i was more familiar with"* (OC.8.f). Furthermore, despite clear instruction and technical support and a specific lecture by the technician, some students were not impressed with this. It may have provided reassurance of support, but the delivery again did not inspire students to engage "*No ones really sold it to me if I am honest"* (FG.8.S12)… *"Even the guy that was talking about it, he never sold it"* (FG.8.13). Despite this there were positive responses to the integration of the software to LEI439, *"it looks like a really good management tool and some really useful, interesting learning points"* (OC.8.a), *"Lynda*

was useful to me" (OC.10.c)…. *"very useful"* (FG.12.S1)…. *"progressive checklist…..systematic"* (FG.2&3group B). This again reflected similar statistical outcomes from quantitative data with only 30% recognising technical problems (see previous section 5.2.1) which provided some reassurance that the infrastructure for the pilot scheme had been effective.

- *Theme 3: Quality of Delivery*

Both quantitative and qualitative data reflected strong student criticisms of certain aspects of video delivery in addition to duration and limited recognition of benefits. Unfortunately there were significant criticisms of the first module Management Fundamentals in particular and combined with such a lengthy duration, it appeared to have an irretrievable effect on student engagement. This was reflected in the Lynda.com monitoring software (section 5.1) and reinforced with the quantitative data where disengagement increased as the playlists and academic year progressed (section 4.2.1). The main concerns focused on the tone, as well as accents of presenters *"I think it depends on whose actually giving the lecture which depends on whether you engage with it or not – deliverers – accents – there is an American who is really annoying"* (FG.6.S6) which caused confusion / difficulty in focusing "*I don't want to be harsh but in the video – with strong accents I found it hard to understand"* (FG.12.S5) *" it's quite hard to concentrate"* (FG.12.S2).

Lack of activity to break up the session and the need for more of an applied/interactive learning opportunity were expressed by students to improve the quality, *"needs more visuals….hard to concentrate for long periods of time….activities for recap"* (FG.2&3.group b) "it would have been better if there were activities to do at the end so they know you have actually taken it in" (FG8.S6). Failure to do this resulted in harsh criticism and repetitive comments such as *"boring"* (FG.2&3.S4)….. *"dry"* (FG.2&3.S1)… *"in one ear and out the other"* (FG.2&3.S10), culminating in a presenters worst nightmare: *"I will be truthful, I fell asleep half way through the first one"* (FG.6.S2). This clearly resulted in apathy and a very negative response which had a knock on effect as peers who had not yet accessed Lynda.com were told about it and

subsequently put off from using it "***All the feedback from the site was very negative***" (OC.8.e)…. "***I did not do it – because someone I know who did it described it as really boring***" (FG.8.S10)…. *Negative feedback from those that did use it putting me off*" (OC.9.f).

As highlighted, the American accent / cultural differences were raised as areas for concern and this suggested that students may have engaged more effectively with UK related professionals / organisations. This was an interesting issue following Clegg's (2003) recognition of 'globalisation' in e-learning providing so much potential. It would appear that this example which utilised a US professional failed to attract the attention or imagination of students and lacked energy and inspiration ***"found it hard to concentrate/take-in what was being said (perhaps due to accent)"*** (OC.9.h). The quality of the professionals were also questioned and whether an industry professional is capable of delivering learning resources effectively ***"just because someone is a good CEO they are not necessarily a good teacher in an online format in the video"*** (FG.6.S1). Students also suggested that activities along the way could engage further the videos and this further reflects and reinforces Beetham et al's opinion (2014) regarding engagement of student feedback in digital development, whilst also reflecting MacDonald and Thompson (2005) and Ozkan and Koseler's (2009) guides, that quality of content and delivery is paramount, and that without it there is serious risk of disengagement.

- *Theme 4: Incentive & Engagement*

   Incentive and engagement were inextricably linked, but in isolation, incentive revolved around purpose, whilst engagement covered topics such as motivation, content, delivery and access. Incentives were largely based around certification. This was seen as a positive outcome of this e-learning resource ***"now I know other people have got certificates – I am now competitive and feel that I want to"*** (FG.11.S2)…***"I would probably do it just for the certificate"*** (FG.11.S9)…. ***"you can put it on your CV / linkedin"*** (FG.8.S7) and this reinforces Jethro et al's (2012) suggestions to ensure that e-learning focuses on process and outcome ie measurable benefits. However, some students failed to utilise the opportunities due to lack of knowledge of the software,

asking ***"what's a certificate?"*** (FG.5.S4) in relation to Lynda.com, and suggesting an increase in promotion of benefits was required.

Reliability was raised as an issue as some students questioned the reputation of Lynda.com in industry/employment. ***"I did not see any real benefit from watching them – I know you get the certificates – but how recognised are they, how well recognised is Lynda – are people going to care?"*** (FG.8.S6) …..***"so how do you know how reliable it is?"*** (FG.8.S2). They also made reference to the loop holes that were discovered through use of the programmes, where participants could just 'run' the video and not have to watch it to achieve certification… ***"also just because you let the video run does not mean you watched it yet you still get a certificate – like great so how do they know you listened to it?"*** (FG.8.S11). This was discussed during the focus group where a number of students had discovered this first hand or had heard from others ***"I heard others just left it on and come back when they have finished – I heard people just let it roll"*** (FG8.S11). Peer influence was seen as another reason to disengage. This also raised questions as to the benefit for students and appeared to weaken their confidence in Lynda.com as a reputable learning and certification body. Even though there were worksheets and tools accompanying the videos, these were not compulsory to achieve certification and therefore measuring performance and formative learning was impossible and suggested at best that it was purely 'surface' learning rather than applied. This raised an interesting point which reflects Price and Kirkwood (2014) who questioned the ability to be able to measure performance and the actual impact on learning. Furthermore if students did not actually watch some of the videos then it questions the validity/reliability of the quantitative data.

Students were in agreement that certification could be a positive incentive but it appeared that the ability to 'trick the system' resulted in students losing respect/ confidence for the resource. Students did feel that making the videos compulsory and/or part of assessed work would increase focus and incentive. ***"I was busy with graded work"*** (OC.8.g)….. ***"be made an assessment to ensure people do it"*** (FG.2 group A). Clearly assessment and deadlines are significant priorities and unless students saw it as particularly beneficial to assessment and/or was made mandatory then they were likely

not to engage *"as it wasn't assessed, I felt as if it was unimportant"* (OC.8.d). *"I think because it is not assessed I was not very motivated"* (FG.8.S11). It was clear from both the quantitative and qualitative data and reinforced by previous studies that students must see the benefits to be motivated to engage above and beyond the existing resources *"I can get the same information from skim reading a book, I can get that information and get to the point …. and get on with my essay faster than having to watch a video"* (FG.12.S10). Additional benefit is essential when offered as an optional tool to enhance their learning experience as opposed to it being mandatory.

Engagement as a linked theme to incentive emerged from recurring labels covering motivation, time/duration (theme 1), influence of peer feedback as previously evidenced, and in particular if and how the content was relevant and enhanced existing learning strategies/styles and associated resources. Students recognised the benefits of visual-audio sources and demonstrated their mature knowledge in relation to learning styles *"It might be good for people that are dyslexic or cannot read books for a long period of time …..or something like that, it might be another way of learning"* (FG.9.S9)… *"are you referring to VARK?!!" [laughs]* (FG9.S7). This clearly shows how well informed undergraduates are and their high awareness levels of teaching and learning related strategies and subsequently meeting the expectations of learners *"dependent on learning style – good to have as an option"* (FG.12.S9)….*"I strongly agree that video learning adds to a holistic way of learning"* (OC.10.b). However whilst students recognised the benefits in responding to different learning styles, those in the focus group tended to distance themselves from their own need *"good for other people"* (FG.12.S8), *"Yea I don't like videos ….but for other people"* (FG12.S9). Despite this, a few did recognise personal benefits *"easy to recap on previously learnt knowledge"* (FG.2&3. Group b)… *"Lynda was useful to me, although, I didn't use it as much as I should've"* (OC.10.c), the latter again suggesting motivation and incentive is key, even for those that see it as beneficial.

Content was particularly important and linked again to duration of videos and also style of delivery (linking to theme 3 quality of delivery). Unfortunately as highlighted, there were high numbers of comments suggesting content was boring, not interesting,

which severely weakened the quality, and also students could not always see the benefits above the existing resources already available ***"I have places I go to find academic information – cannot be bothered to learn another way"*** (FG.5.S7)… ***"I used the information from lectures and seminars to get me through the unit. I did not feel the need to seek additional information"*** (OC.8.b). Time and time again the qualitative data highlighted shared views… ***"don't see the point…"*** (FG.5.S9), ***I did not see any real benefit from watching them"*** (FG8.S6) ***"You can still get a good grade and understanding of the unit without taking part in Lynda"*** (FG.9.S10)…This again reflects MacDonald and Thomas (2005) and related sources regarding the importance of responding to multi dimensions when integrating e-learning and ensuring quality in service / content and clarity of benefits. If students could not see the benefits then it influenced their decision to engage, and the following quote evidences this further, ***"it may have been my own fault, but i wasn't aware of how useful the software could have been…"*** (OC.10.e).

Overall, whilst theme 2 (access/support) could be seen to provide the foundations for all of the other themes, it could also be suggested that this theme, alongside themes 1 (time/duration) and 3 (quality of delivery) all influenced, arguably, the most important theme, ie theme 4 regarding incentive and engagement. Results would suggest that time and quality of delivery, had the most significant impact due to the volume of recurring themes. These were then seen as the most powerful influences overall to actual student 'incentive and engagement', or disengagement as the qualitative and quantitative data suggested.

5. Conclusion

Salmon (2005) recommended a holistic approach and 'flying not flapping' with the engagement of e-learning. Kim and Bonk (2006) warned of a perfect 'e-storm' if this systematic approach was not adopted, and more recently sources such as Price and Kirkwood (2014) and Cleveland-Innes (2015) reinforced these perspectives. In relation to this study it could be argued that whilst the integration of Lynda.com has not created a tornado on any such level, there is certainly evidence to suggest some 'gusting winds' at times which arguably the university needs

to learn from. The results from both the quantitative and qualitative data provided evidence to suggest that there is positivity in the way in which Lynda.com was integrated into MSO LEI439. This is best reflected in theme 2 regarding access/support, and suggesting that a systematic / structured e-learning tool was utilised which did not impact negatively on the unit itself, and provided some enhancement for some learners. Furthermore the technical support ensured that Kim and Bonk (2006) and King and Boyatt's (2014) concern for appropriate staff support and training was in place to support the students. As a pilot study therefore, it could be argued that the systematic approach recognised, moved beyond the concerns of 'flapping' (Salmon 2005).

Unfortunately (or fortunately) the study did uncover the cause of 'gusting winds' though, which arguably reinforced the challenges of Njenga and Fourie (2010) and criticised the 'techno-positivists'. Even before analysis of the primary data, the literature review highlighted the concerns with lack of consistency and the sporadic nature of evaluation and monitoring as recognised by the likes of Price and Kirkwood (2014). Njenga and Fourie (2010) and other sources such as Boster et al. (2006) and DeVaney (2009) suggested e-learning doesn't always impact on performance. Through this investigation it became apparent just how important recognition of MacDonald and Thompson's (2005) multi dimensions were, regarding structure, content, delivery, service and outcomes, and supporting similar approaches by Ozkan and Koselar (2009). Themes 1 (time and duration), 2 (access and support), 3 (quality of delivery) and 4 (incentive and engagement) were all fuelled by these factors and in particular 1 and 3 demonstrated just how influential, poor quality of delivery and content could be in impacting negatively on student engagement. This further reinforced Salmon's (2005) proposal for a structured framework for e-learning.

Kim and Bonk (2006) suggested that studies of e-learning performance should be able to compare with traditional methods and this was possible through comparison of average pass rates for the MSO unit (LEI439) from the previous year to this year. However the result revealed a disappointing stale mate of 54% average pass rate for both years. Therefore there was no evidence to suggest that Lynda.com enhanced performance. In addition to this, and as recognised through the study, the lack of certification and/or ongoing formative assessment available through Lynda.com meant that specific performance measures were not possible. Furthermore the discovery by students of 'loop holes in the system' that enabled certification without viewing

or any form of formative assessment, weakened the quality of Lynda.com as a resource. However both the quantitative and qualitative data did provide some light on the horizon, perhaps a silver lining on Kim and Bonk's (2006) potential e-storm clouds.

Whilst there was significant criticism in quality of delivery, duration of videos and subsequent impact on engagement, it could be argued that highlighting this information will enable better and more informed decisions for future integration of e-learning tools. Lynda.com has hundreds of courses and obviously this study only focused on ten videos under the management and leadership playlists. There were clearly problems, criticism and disillusionment on the quality of some of these, but these criticisms should help reiterate the importance of reviewing and selecting the most effective sources in future. In particular the monotony of delivery and lack of interactive /applied activity appeared to weaken further the appeal and would therefore reinforce Zhang et al's (2006) view that 'interactive' videos are most effective, and where there is clear incentive (reputable certification / linked to assessment) and/or other benefits for engagement (enhanced learning). Having recognised through the secondary data from Lynda.com and the pilot unit assessment results (LEI439) that there was little evidence of increased performance, it demonstrated even more the importance of highlighting alternative benefits ie in enhancing the student experience and as advised by Bettham et al (2014) the importance in responding to student's 'digital desires'

It should be recognised that the pilot is not reflective of the whole of the Lynda.com resources. However this study has made clear that lecturers, faculty departments and senior managers need to consider the importance of a well-researched and 'systematic' approach to e-learning integration as reinforced by MacDonald and Thompson and Ozkan and Koselar's (2009) Salmon (2005) and Price and Kirkwood (2014) and Cleveland-Innes (2015). In particular the positive feedback through the pilot study (ie students recognising the benefits to respond to learning styles / alternative delivery mechanisms etc) reinforced the importance of Beetham's (2014) advice in focusing on satisfying student expectations and in particular Ellis and Goodyear (2010), Fill and Otewill (2006) and Parson et al (2009), regarding the use of e-learning as part of 'blended' learning to enhance and not to replace existing strategies. Results further reflected the power and dynamism of advancing technologies and how blended learning / distance learning and mobile, m-learning (Evans 2008) are continually testing and pushing universities to respond.

The quantitative data which demonstrated the use of smart phones / tablets and access away from university campuses, reinforced this further.

Applying previous literature to the pilot study, it is suggested that Solent was not 'flying' when it came to the integration of Lynda.com to the MSO unit (LEI439) but nor was it overly 'flapping'. It could be argued that the integration of Lynda.com to this sample population demonstrated perhaps *'a newly hatched bird venturing from its nest with 'L plates' and facing a few gusty winds as it headed out on its maiden voyage'.* It is now for the rest of its siblings watching to learn how to minimise / avoid the meteorological disturbances and glide smoothly to the future of e-learning in HE, which is not going away, any time soon.

6. Recommendations

The following recommendations reflect the key outcomes from the review of literature on e-learning and subsequent analysis of Lynda.com monitoring data and primary data from the pilot study:

1. *Access, training and support*

   Essential for universities integrating e-learning into teaching and learning strategies to ensure there is a solid infrastructure, and clear information, structure and technical support to aid students and staff

2. *Quality and relevance of e-learning resources*

   Staff responsible for integrating e-learning resources (such as video tutorials into course units), need to research the software packages available and select resources (eg video tutorials) that best enhance teaching and learning.

3. *Establish incentives*

   Clarify if e-learning resources are for formative or summative assessment. If formative, promote additional benefits to existing programme to enhance student experience ie certification (reputable and industry recognised). For summative assessment build e-learning tasks into assignments

4. *Maximise engagement (and student experience)*

Incorporate e-learning as part of a blended learning approach to 'enhance' as opposed to replace traditional methods. Ensure e-learning such as video tutorials are relevant, good quality (in delivery) and short and sharp with ongoing interactive tasks to engage students

5. *Performance monitoring and evaluation*

Establish comparable systems for managing performance (where appropriate), whether through formative or summative methods and/or through measuring student satisfaction

6. *E-learning strategies (university wide)*

Embrace Beetham et al's (2014) recommendations in response to 'digital desires', focusing on a strategic approach to the:

- o engagement of students in developing the digital environment
- o managing student expectations of the digital environment
- o Supporting staff and students to use their own devices (including growth of m-learning)

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