Abstract

Purpose: The aim of this paper was to investigate if Moodle, as a Learning Management system, could be effectively used to help support the socialisation of new entrants into a central government Department in Ireland.

Design Methodology/approach: The methodology used for this research was a qualitative one that will be presented as a case study; in which the author designed and developed an elearning object that could be deployed using Moodle. This was an intrinsic case study examining real life training from multiple perspectives. The methods utilised were online surveys and focus groups. Data was gathered from new entrants, line managers and senior managers.

Findings: The study indicates that Moodle could be used to support new entrants into a large organisation. During the analysis the researcher, using coding and triangulation, identified that both managers and staff identified similar topics that needed to be included. The management features in Moodle also meet the needs of the organisation.

Research Limitation: One major limitation to the research was that Moodle was prescribed as the Learning Management System to use, this was a clear bias. As a result no other systems were evaluated.

Practical Implication: The practical implication of this research was that elearning can be effectively used in this large organisation.

Originality/Value: As a result of this research the Department requires a shift towards online social constructivism necessitating a pedagogical shift from behaviourism and cognitivism. As a trainer the notion of self-directed, empowered, interacting, self-reflective learners was very attractive.

Keywords: elearning, socialisation, government department, large organisation, qualitative, case study, survey, focus groups

Paper Type: Case study

Introduction

This study explores the use of Moodle, as a Learning Management system, to manage induction of new entrants into a central Government Department. The researcher will detail why he looked at this topic and the aim of the research. The methodology used was a case study approach using an interpretative non-positivism social constructionist model. The methods that have been used are surveys and focus groups, ethical considerations will also be detailed.

The research question set for this study was:

Can Moodle be used to help support new entrants into a Central Government Department?

As we are exiting the financial downturn in Ireland, value for money is still paramount in the public sector. New staff entering the Department are provided with an induction course that informs them what the Department is about, its responsibilities and how it operates. However, as there has been a recruitment embargo for several years there has not been the opportunity to run many of these courses. Staff have transferred in from other Departments but due to the lack of numbers a timely induction course has not been feasible. An induction course allows the learner to understand what the Department is about and how their role contributes to its goals and objectives and helps them socialise into the organisation.

There is also a requirement to use a Learning Management System to manage staff interaction and record learning achieved. Moodle has been identified as the system to use. This system is already in use in other Government Departments and the literature shows it is one of the top systems stating *Moodle has constantly maintained its top spot among the LMS tools* (Saxena, 2013)

The aim of the research was to assess if Moodle could support new entrants into the Department through the design, development and deployment of an elearning module for these staff members. This module would give new entrants key information about the Department until they are able to complete the full induction course.

Literature review

There was extensive literature covering elearning, learning management systems and training and a wide variety of theories. This review will focus on six major themes; they are the adult learner, social constructivism, instructional design, socialisation, cognitive load theory and the use of a Learning Management System. Although the literature covers many different aspects of each area this paper will focus on how they could be used in a training and development environment.

The adult learner

The research took place in an adult learning context. A major problem was the definition of an adult learner, with Holmes and Abington-Cooper (2000) concluding that there was no agreement in the literature as to what constitutes an adult learner. They state age was a characteristic and not an identifier and other characteristics have to be used. Pappas (2013) states adults are characterised by maturity, self-confidence, autonomy, solid decisionmaking, and are generally more practical, multi-tasking, purposeful, self-directed, experienced and receptive to change. All these traits affect their motivation, as well as their ability to learn. Whitby (2013) in describing his experiences as a retired educator states that 'relevance' was important to the adult learner so the course design would need to have relevance. Malcolm Knowles defined andragogy as "the art and science of helping adults learn" (Knowles et. al., 2005:P61). Learners also need to be able to construct knowledge through interaction with other learners; this was referred to as social constructivism.

Social constructivism

Social constructivism takes the position that meaning is generated through the interaction of people and stems from the work of Vygotsky (Jordan, 2008). Knowledge is constructed in the context of the environment the learner is in; learning therefore possesses a strong contextual nature. Social constructivism promotes authentic learning due to its social and contextual nature (Murphy et. al., 2005; Ruey, 2010). Social constructivism extends constructivism by incorporating the role of others and culture in development. In this sense it could also be contrasted with social learning theory by stressing interaction over observation (Palincsar, 1998)

Huang (2002) uses the prism of Knowles andragogy to view social constructivism to develop guiding pedagogical principles for adults; emphasis was placed on the importance of interaction with peers and instructors to construct knowledge collaboratively. Authenticity encourages self-direction and reflection on the part of learners (Huang, 2002), while the presence of a strong facilitative capacity engenders a safe, positive, idea sharing environment. The fundamentals of online social constructivism include active collaboration, reflection, interaction, negotiation and self-direction (Maor, 2001). These themes of collaboration, collective goal setting, student empowerment and self-direction matched with strong facilitation are widespread in the literature (Ruey, 2010).

Social constructivism in the educational setting is about active meaning making (Jordan, 2008) and the social component is derived from interaction between peers and teachers (Huang, 2002). Jordan (2008:P59) also tells us that 'knowledge was constructed in the context of the environment in which it was encountered' which indicates that learning has a strong contextual nature and promotes authentic learning (Murphy et. al, 2005; Ruey, 2010).

These authors suggest that resources for adult learners need to give autonomy, encourage decision making, self-direction and have relevance for the learner. Learners must be given the opportunity to construct knowledge they need with support from peers through collaborative interaction. Learners need the power to manage their learning in a positive safe environment and the intervention needs to be designed to allow this.

Instructional Design

The design of any training intervention should be underpinned by instructional design theory. The designer needs to be cognisant of both the Macro (i.e. training in general) and the Micro (i.e. within the organisation) models to ensure consistency. Quality was better than quantity for online training (Allen, 2007:P55) so the design would need to focus on small succinct amounts of information presented to the learner at any one time.

The ADDIE model is well known in the field and is therefore a good starting point in this study as a Macro level model, it is a five-phase instructional design model of which evaluation should not be a standalone step but is continuous throughout (Hodell, 2011;

Morrison et. al., 2010). Biggs constructive alignment was a principle used to directly address the learning outcomes of the learner by aligning their teaching, learning and assessment tasks of the learner (Biggs and Tang, 2011). It represents a marriage between a constructivist understanding of the nature of learning and an aligned design for outcomesbased teaching.

The Micro models of learning used were Kolb's experiential learning theory, Bloom Taxonomy, Gagné Stages of Instruction and collaborative working (Beetham and Sharpe, 2007). These models identified the mental conditions for learning and the mental events that occur when adults are presented with various stimuli. Gagné's model was a step by step approach which showed potential to ensure the learners attention was focused at all times.

Cognitivism involves encoding knowledge to long-term memory to provide a deeper rather than surface form of learning. Cognitive Load Theory argues that learners will be more effective in retaining information in long term memory for recall when required, so as not to overload the working (short-term) memory (Sweller et. al., 1998). He presented three types of cognitive load 1) intrinsic 2) germane and 3) extraneous. If the interactivity between the elements in working memory is high then the intrinsic cognitive load is high (Sweller, 2010).

All elements in the working memory must be processed before meaningful learning can continue (Paas et. al., 2004). Information and activities should be designed in ways that optimise cognitive processing and lead to better formation of mental models, i.e. schema, and better retrieval of the information by the learner (Tzanavari and Tsapatsoulis, 2010). Mayer and Moreno (2003) distinguish among three kinds of cognitive demands: essential processing, incidental processing and representational holding.

By utilising the macro and micro models, discussed in the literature, the elearning course designed for this project will allow learners to develop at their own pace whilst not over burdening them cognitively. The findings from the literature informed the design of a resource to support induction training. How individuals fit into an organisation, through socialisation, is important and these models could be used to achieve this.

Socialisation

Socialisation was a term used to refer to the lifelong process of inheriting and disseminating norms, customs and ideologies, providing an individual with the skills and habits necessary for participating within his or her own society, or in this case a central Government Department. Socialization could be described as the means by which social and cultural continuity is attained (Macionis and Gerber, 2010:P104). Scientific research provides some evidence that people might be shaped by social influences and their interactions with others can influence behaviours.

Newcomers need to learn what to do and how to do it and they are eager to learn. However, other individuals cannot be relied upon to consistently provide this support (Korte 2010). Socialisation of the learner into the organisation is important for the learner (Natarajan and Nagar, 2011; Beattie, 2006) and the learners manager play an important role (Korte, 2010). The literature shows that early induction leads to greater job satisfaction and increases productivity (Natarajan and Nagar, 2011; Korte, 2010). A formal induction process could help the newcomers' socialisation into the organisation and if done effectively and efficiently should increase productivity. Identifying what newcomer should know will aid in the design of the elearning module.

Use of a Learning Management System

One of the Departments aims in introducing elearning was to ensure the management of individuals learning. This research investigated if this need could be met by the introduction of a Learning Management System to manage staff interaction and record learning achieved. Moodle was already in use in other Government Departments and was going to be used in this Department. The literature shows it was one of the top systems stating Moodle has constantly maintained its top spot among the LMS tools (Saxena, 2013). Stewart et. al. (2007) looked at three Learning Management systems and it was clear that Moodle was the best choice of the three systems they reviewed.

With Moodle the role of the teacher changes from that of the expert imparting knowledge to that of a facilitator (Huang, 2002; Murphy et. al., 2005). It actively promotes collaboration, reflection, interaction and self-direction which are the fundamentals of social constructivist learning (Huang, 2002; Maor, 2001). The themes of collaboration, collective goal setting, student empowerment and self-direction matched with strong facilitation are widespread in the literature (Ruey, 2010). The role of the learner also evolves from that of an inactive receiver of information to an active creator of knowledge with them becoming more self-disciplined and responsible (Ruey, 2010).

This review has looked at six major themes of the adult learner, social constructivism, instructional design, socialisation, cognitive load theory and the use of a Learning Management System. It was clear from the literature that all these elements have to be in place for the induction training module to be effective.

Methodology

The epistemological stance for this research was a constructionist one with an interpretive theoretical perspective. It uses an interpretative non-positive social constructionist model which allowed an examination of the *how & why* (Silverman, 2013; Denscombe, 2010) the Department operates and the reasons that govern behaviour (Flick, 2007). The methodology used was a qualitative one presented as a case study.

Case Study research focuses on a particular phenomenon with a view to providing an indepth account of experiences (Denscombe, 2010; Cohen et. al., 2011) which allows researchers to describe events based on participants experience (Creswell, 2009). Yin (2009) states they can allow multiple levels of analysis within a single study.

This project will reflect multiple realities, line managers, senior managers and staff, and relied on individuals' description of experiences and feelings to tell an interesting story (Silverman, 2013; Denscombe, 2010). This was an intrinsic case study as it was trying to identify an instance that a new work practice (Bell, 2010) will be of benefit to the organisation.

Delimitation

As Moodle was used in other Government Departments this project did not look at different Learning Management Systems and their benefits. There was a clear bias towards Moodle that must be highlighted.

Research Ethics

Approval was sought from and granted by DIT Ethics Committee for this project with consent forms that were developed from Denscombes (2010:P333) template and relevant permissions granted from the gate keepers of the Department.

Data collection

The methods employed for the research were online surveys, focus groups and analysis of Moodle reports. Before the elearning module was designed there was one on-line survey and two focus groups to identify what was to be included in it. There was also one postmodule survey for evaluation.

Survey

Surveys give a snapshot of people's thinking at a given point in time and collecting factual information relating to groups of people (Denscombe, 2010). A sub-group of the Departments Staff, i.e. line managers, were chosen as a sample of the population (Denscombe, 2010).

Bryman and Bell (2007) state that a researcher can achieve a higher response rate with online surveys and Denscombe (2010) states one advantage of online questionnaires was that there are no transcription errors. For the surveys the researcher used an online tool, Google Forms, which provides good reports with anonymised data for each question, results were downloaded for further analysis.

The work of the Department is very diverse with Administrative, Veterinary, Inspectorate and Laboratory staff. The questionnaire comprised of open questions as well as some based on the likert scale. The researcher chose not to use demographic questions, i.e. age-genderlocation, as he believed it could be used to identify individuals and respondents find this type of question threatening (Cohen et. al., 2011).

It is important to pilot-test a questionnaire, as it could help tease out technical matters; (Rowley, 2014; Berg and Lune, 2014: Saunders et. al., 2012; Bryman and Bell, 2007; Cohen et. al., 2011; Scott and Usher, 2011; Greener, 2008). The questionnaire was piloted with colleagues that were not participating in the survey and corrected based on their feedback.

The online survey was issued to 654 line managers across the Department asking what they would like new entrants in their area to know. There were 161 responses to the survey, which was a 25% response rate. A post-design evaluation by new entrants, after they had completed the elearning module, was done by online questionnaire.

Focus Groups

Focus groups can be useful in gauging the extent to which there was a shared view amongst a small group of people and could be enriched by the group dynamic that produces socially constructed data (Denscombe, 2010; Cousins 2009; Berg 2004). A focus group should be made up of individuals who have enough in common to make discussion possible but have varying experiences or perception to allow for debate amongst them (Barbour, 2007).

Two pre-design focus groups were convened; 1) those that have joined the Department within the last year and 2) senior managers from key areas of the Department such as Human Resources and Health & Safety. The focus groups were facilitated by an independent Trainer from within the Department and the researcher was present as an observer. The audio from each focus group was recorded and transcribed; the transcriptions were checked against the original audio files to ensure accuracy.

Moodle Reports

Moodle allows instructors to request reports outlining which resources and activities in a course have been accessed, when, and by whom. Learning analytics and elearning reporting offer insights into the progress of learners and ensure that objectives are being met. Viewing trends of participation and other data can assist educators improve the elearning experience, vastly helping retention rates and student successes (Moodle.com1).

Progress reports were downloaded from Moodle after the evaluation was complete.

Data Analysis

Any piece of research has to be rigorously designed to ensure the research data is valid and reliable. To improve validity the researcher used coding and triangulation to analyse the data.

Coding

Coding is a key stage in qualitative research (Bryman, 2012) and the categories must be applicable to and indicated by the data (Buchanan and Bryman, 2012). Miles et. al., (2014) sums it up nicely by stating:

Codes are first assigned to data chunks to detect recurring patterns... ...similar codes are clustered together to create a smaller number of categories.

Coding is a two stage process, basic (or open) coding helps distinguish overall themes and detailed (or axial) coding identifies more specific trends, interrelationships and patterns which can categorise into similar themes giving a family theme (Miles et. al., 2014; Creswell, 2013; Buchanan and Bryman, 2009; Flick, 2007). Codes are either prefigured or emergent that breaks the data into themes to allow a comprehensive understanding of it (Miles et. al., 2014; Creswell, 2014; Creswell, 2013; Bryman, 2012; Denscombe, 2010; Flick, 2007). The researcher identified emergent themes from the questionnaire and focus groups and then categorised them into family themes.

Triangulation

Triangulation is the method of viewing things from more than one perspective and helps cross checking of more than one source of data in a study (Bryman, 2012; Bell, 2010; Denscombe, 2010). Triangulation takes multiple sources of information and maps one set of data onto another to give a more comprehensive, accurate representation of the data; it lets the research take different contexts and construct them into one (Silverman, 2013). Researchers search for convergence among multiple and different sources of information to form themes or categories in a study (Creswell and Miller, 2000:P:126), by using this tool researcher bias has been eliminated and the data can be relied on.

Data sets from the three methods was triangulated which gave the perceptions of staff and managers.

Course Implementation

For this project to take place a Moodle installation was required. The researcher gained the required approval and Moodle 2.6 was installed. There were a few initial issues with the

managed internet browser in the Department but these were overcome with the upgrade of users' internet browsers.

As discussed in the Literature Review, the ADDIE and Gagné models were utilised to support the development of the online module. Designers need to be aware that their training has to be meaningful, memorable, motivational and measurable from a designer's point of view (Allen, 2007). The course was built to support learners until such time they can complete the full induction course. The researcher took cognitive load in to account and allowed user time to encode the learning into long term memory so it could be easily recalled at a later time (Sweller et. al., 1998). The elearning module was designed into small bite sized pieces to allow the user to encode the information to long term memory.

The finished elearning course was rolled out to, and evaluated by, the new entrants who took part in the focus group. Moodle was used to deploy the course.

Findings

In this project the research question was:

Can Moodle be used to help support new entrants into a Central Government Department?

Line Managers Survey

An online survey of line managers was conducted to gauge their reaction to online learning and if they believed new entrants would utilise it. It was interesting to see that 90% of respondents (Q5) believe that *induction was beneficial*. 53% responded (Q6) that they had *not taken part in an elearning training course*; however 82% believed that new entrants *would be willing to take part in an elearning course*. Over 78% of respondents (Q11) stated that a *blended approach, i.e. online and face to face, would be their preferred approach* with only 1 respondent (0.6%) opting for *100% online*. Conversely when asked where staff should complete training (Q12) 55% said *out of the office* and how long they would release staff (Q13) only 13% replied *less than a day* with 41% opting for *a full day*. When asked (Q14) for *reason to their answer to question 13* the general comments were *staff need to be in an environment conducive to training* and *releasing staff for one to three hours can be* disruptive. When asked for any other comments they replied online should not replace existing Course, new entrants don't know what the Department does, EZone out of date, all forms should be online, culture is resistant to change, induction is also the responsibility of managers and Department too far spread all over the Country.

New Entrants Focus Group

A focus group for new entrants was held to ask about their experience of induction training. They were asked *how long they were in the Department before being sent, if at all, on an induction course*; their answers ranged from not at all to two years. During the discussion one participant told the group they had done the course for a second time after 10 years in the department and found the information as useful as the first time. This discussion led into the second question of *when should new entrant complete induction training*; discussions varied on this point but the general consensus was within three months. However caution was aired not to overload them on their first day or week.

For question 3 the group were asked *what would they like to have known on their first week*. In the discussion that ensued it was clear a lot of what was cover on the existing course was relevant; areas such as leave arrangement, Departmental Structure and what the Department responsibilities are. It was also stated that more functional information could be given on an elearning module; areas such as Unions and financial schemes they offer, function of the Civil Service, European Institutions, freedom of information, legislative process and how to access computer systems.

Questions 4 and 5 asked the group whether they thought, in their own opinion, *elearning would be accepted by new entrants and if it would be beneficial to them*. A discussion ensued about the age profile in the Department being so high; in 2013 it emerged that only 1% of the employees were less than 30 years old. Any future new recruits will probably be a lot younger and have had exposure to elearning prior to joining and will come to expect some form of elearning. For current staff the new elearning system will have to be user friendly and well tested. It was also stated that people have exposure to online learning but are not aware of it, such as booking flights – tickets or using internet banking, and would have learnt how to use these systems. Fear of change and technology were cited as reason why existing managers may not engage with an elearning course.

The participants were then asked if they were told about the Departments Intranet site and directed there for more information about different areas in the Department. Only one participant replied *Yes* and informed the group that had been after contacting Training and Development Unit and being directed by them. No one had been told by their managers that more information was available on the site although they were all aware it was there.

Other discussions in the group included, *having a managers' version of the induction system*, which could detail what managers need to tell new entrants and would increase consistency; *culture and traditions of the organisation*, different offices/locations have different cultures which reflects different work practices; *change needs to be driven from the top down*, i.e. senior manager buy in; *managers approve all training and should allow staff to complete training at their desks*, i.e. give them time not answering telephones; *help to link Department Structure through Statement of Strategy to the Business Planning to performance management and individuals goals*. One of the main areas of agreement was that anything new identified for elearning module should carry through to existing face to face courses.

Senior Managers Focus Group

A focus group for senior managers was established to find out what they would like new entrants' to their areas to know. The first question asked was, *have you heard of or ever completed induction training in the Department?* There was a mixed response but the majority answered yes with only two saying no. Those who completed the training indicated the timing ranged anywhere from six month to three years after joining the Department. One person did state he only became aware it was still running recently.

When asked what they would like a new entrant to know when they join the Department the following areas were highlighted during discussion, structure of Department; business planning process including performance management; IT Security awareness; data protection; confidentiality, officials secrets act and non-disclosure contracts; freedom of information; personnel (HR) issues such as leave entitlements; and regulation/legislation process. At this point the manager wanted to highlight that on the first day new entrants would be better finding out how to enter the building, how to get an identification card and how to access the computer systems such as email and internet. A discussion ensued about how new members of staff are welcomed into the Department and it was stated *the practice of giving them a file or procedures manual has to change,* currently when a new member of staff enters they are given a file or procedures manual to read with no background information or support. The managers' discussion concluded that the newcomer needs to be supported and not just left adrift.

Then the managers were asked what benefits they perceived elearning could bring to the Department. A discussion ensued and the following benefits were identified, increased interaction between new employee and manager; progress can be tracked by managers; link to information on the intranet site could be given; and it could help those who have been on extended leave as well as new entrants. At this point a discussion on the fact the Intranet site did not contain current up to date information and it could not be relied upon for new staff members. Information such as organisational charts are out of date. There was an IT representative in the group who said it was interesting to hear the feedback from this group as they don't normally get it first-hand.

When asked if there were any new areas that could be added to the existing course the following emerged bullying and harassment policy, ethics in public office information, HR problems, salary problems, freedom of information, health & safety and links between business planning/statement of strategy through to performance management. This discussion led on to the managers being asked what else could be done to improve induction training to which their reply was maybe new employees should receive a general induction course on Departmental structure before reporting to managers; elearning should support face to face course not replace it; on the first day people just want to get orientated with where they are and where the toilets/canteen/smoke room is and not get bogged down; enthusiasm can be lost if induction training is not done in a timely manner; new people need to be made to feel part of the organisation; cloud or extranet solution can extend elearning to people at home, i.e. for those on long term leave; induction elearning should be split into smaller modules with the ability to skip modules; managers need to manage time and allow new people the time to do induction training; needs support from senior management – i.e. top down; elearning can complement on-the-job training; and EZone needs to be kept up to date.

All the data received and analysed from the pre-course online survey and focus groups help in the design of the module. Family of themes were identified, i.e. *human resource issues*, when triangulation was complete. New areas not already included on the current course, i.e. *legislative procedure*, came from the data analysis and will need to be accounted for.

Evaluation of the elearning module

An online survey, for the evaluation of the elearning module, was sent to the seven participants, all seven responded. In question 1 the participants were asked in question *To* what extent do you feel your personal learning objectives have been achieved? On a scale of 1 - 5 with 1 being fully satisfied, two participant answer 4 and 5 indicating not satisfied; conversely in question 5 they were asked *How would you rate the programme overall?* On a scale 1 - 6, with 1 being Not useful at all, every respondent gave a 4 or above. In question 2 they were asked *Which part of the course do you feel will be most useful?* To which 71% responded the module on Human Resources. In question 3 they were *Which part of the course do you feel will be were Which part of the course do you feel will be least useful?* To which 43% responded overview of veterinary services. Question 6 asked *Would you recommend the course?* 100% replied Yes. In question 7 57% responded that this was not *their first experience of elearning*. In question 8 83% responded *it was easy to log onto the elearning system*. In question 9 they were asked *Was the content lay out in a logical manner?* to which 86% answered yes. In question 11 respondents were asked for general comments, these comments were positive, such as

"Very good course, a lot of useful information" – "The page looks very well - Excellent module" – "the learning provided is both appropriate and essential to all staff and most importantly the design is formatted clearly to give easy understanding".

The only negative comment was that "it did not work in the Firefox browser".

Moodle reports

The data from the Moodle reports was downloaded in Microsoft Excel format and formulae were added to help analysis. Table 1 below gives a summary of the data:

Table 1						
		Personnel				
	Overview	/ HR	Inspectorate	Tecchnical	Veterinary	Mods Comp
User 1	>	~			>	3
User 2	>	~	~		~	4
User 3	>	~				2
User 4	>	~	~		>	4
User 5	>	~	>		>	4
User 6	>	~		~		3
User 7	>	~	~			3
No. of Participants	7	7	4	1	4	

From this data the researcher could identify who did which module and it is clear from the above table that not all the participant completed every module of the course and that only the Overview and Human Resources modules were completed by all.

From these reports the research was also able to see that each user accessed the course only once. They gave details on how long users spend in a module, the amount of time ranged minutes to hours. The researcher estimated that each module should take approximately 15 minutes to complete. Users who spent less than 5 minutes were counted as clicking through. Some session lasted hours and these had to be disregarded as it was not clear if they user was actively engaged or if the system was running in the background.

Discussion

To answer the research question an elearning course needed to be developed that could be deployed through Moodle to new entrants. Moodle was installed by the Information Technology area and the course designed in a way that people would engage based on the theory.

Through reviewing the literature for this project it was clear that the adult learner was not a passive receiver of knowledge and indeed they need to see the value in the knowledge they are receiving. Up until recently the main pedagogic approach to Training in the Department has been one of tell the learner what they need to know. After completing this research it was clear now that a more andragogical aspect should be adopted by implementing a more socially constructivist approach.

This will require a pedagogical shift from behaviourism and cognitivism, the notion of selfdirected, empowered, interacting, self-reflective learners is very attractive and new. This paradigm shift casts the Trainers and learners in new roles. The role of the Trainer changes from that of the expert imparting knowledge to that of a facilitator (Murphy et. al. 2005; Huang, 2002) and a co-learner (Maor, 2001). The role of the learner also evolves to an active creator of knowledge becoming more self-disciplined and responsible rather than just an inactive receiver of information (Ruey, 2010).

While analysing the data from the survey and focus groups it was reassuring to know that the two day face to face course already gives most of what the groups were saying new entrants' need; however there were a few new areas identified such as European Institution and Legislative Process. These new areas if added to the face to face course could make it too long. In the elearning module the learner was not under the same time pressures so certain areas could be made mandatory before attending the full induction course.

When designing the module the researcher had to allow for as much free space in the working memory as possible for essential processing to be maximised. The course was split into bite sized chunks, as suggested by the literature and data collected. The Induction course was presented in small chunks rather than just one long course by breaking the information into different sessions that the learner could work through sequentially or jump from session to session at will. It was also suggested in the focus groups that a new course could be developed for managers, giving them access to the required information that new entrants would need and a suggested time scale for its delivery. This would ensure consistency for induction training and allow the new members of staff to be socialised at a reasonable pace.

The answers to questions 12 and 13 of the online survey, detailed in the findings, are interesting. At present most courses are at least a full day, very few are less. If a blended model was used, the newcomer may be best to sit at their desk for an hour to do one specific module. Releasing staff for at least a day may be an answer given because the manager was relating it to what currently happens.

During both focus groups it was clear that those taking part were not convinced the current method of induction into the Department helps newcomers' socialisation. Both the survey and focus groups were in agreement that the induction training should be given in a timely manner, however it was important not to overload the new entrant on their first day. The general consensus was that too much information on the first day would only confuse the new entrant; information on this day should be restricted to getting access to the systems, i.e. obtain a username, and the relevant Information Technology Policies in place, e.g. email and internet; general building lay out, i.e. bathrooms and catering facilities, should also be given on the first day along with any security arrangement in place to enter or exit the building. It also emerged that the Intranet was not up to date and some of the information cannot be relied upon.

During both focus groups the role of the manager was highlighted. It was suggested that there could be two online courses concerning induction, one for managers and one for new entrants. The managers' version would let the manager know what and when to pass onto the new entrant. This will ensure the new entrant are not overloaded at any point and provides consistency to all new entrants. There are a lot of forms, Human Resource and Information Technology, that need completed within the first few days; a list of these with links would be one area to look at. This idea has a lot of merit however outside the scope of this project and will be investigated later.

The reliability of the Departments Intranet site was discussed in both focus groups. It was evident that there was a need to look at the site as it was believed that it is out of date and the information cannot be relied upon. This area was outside the scope of this project and will need to be looked at separately.

From the Moodle Reports it was interesting to see who did which module. It was clear to see who was engaging with the elearning module and those that were just clicking through. These management features will be a vital element in the future. It was evident from the reports that the user focused on specific areas that were relevant to them. It was clear, see Table 1 above, that the common areas of Departmental Overview and Human Resources were completed by all whereas only one user completed the Technical module.

Conclusion

This study has shown that training for new members of staff is vitally important to ensure they are made to feel part of the organisations, i.e. socialisation. The design of the induction course has taken into account what new entrants and managers' needs were. Online surveys and focus groups were used to triangulate these needs. It was clear from the literature and those consulted that it was important not to overload the new entrant so cognitive load theory was used to ensure this. Finally although Moodle was the mandated choice of Learning Management System the literature supported its use as one of the leading systems.

During this research it became evident that a more socially constructive pedagogy would be more appropriate. Trainers need to give the learners the support they need to construct their own knowledge. Indeed as a result of this research work, practices have already started to change with learners being included in course design. Discussions have taken place within the Department about changing the name of the Unit from Training and Development to Learning and Development to better reflect its role.

New areas such as legislative procedure, European institution, employee assistance officers, ethics in public office and central veterinary laboratories will be added to both versions as appropriate at a later stage.

References

Allen, M. (2007), *Designing Successful e-Learning: Forget What You Know About Instructional Design and Do Something Interesting*, Pfeiffer, San Franciso

Barbour, B. (2007), Doing Focus Groups, SAGE, London

Beattie, R. S. (2006), *Line managers and workplace learning: Learning from the voluntary sector*, Human Resource Development International, 9(1), 99-119

Beetham, H. and Sharpe, R. (2007), *Rethinking Pedagogy for a Digital age Designing and Delivering E-Learning*, Routledge, Oxan UK

Bell, J. (2010), *Doing your research project: a guide for first-time researchers in education*, health and social science, Open University Press, Maidenhead

Berg, B. (2004), *Qualitative research methods for the social sciences (5th ed.)*, Pearson, Boston

Berg, B. L. and Lune H. (2014), *Qualitative research methods for the social 8th Edition*, Pearson, London

Biggs, J. and Tang C. (2011), *Teaching for Quality Learning at University*, McGraw-Hill and Open University Press, Maidenhead

Bryman, A. (2012), Social research methods 4th ed., Oxford University Press, Oxford

Bryman A. and Bell E. (2007), *Business Research Methods 2nd Edition*, Oxford University Press, Oxford

Buchanan, D. A. and Bryman, A. (2009), *The SAGE Handbook of Organizational Research Methods*, SAGE, London

Cousin, G. (2009), *Researching Higher Education: An Introduction to Contemporary Methods and Approaches*, Routledge, New York

Cohen L., Manion L. and Morrison K. (2011), *Research Methods in Education (7th ed.)*, Routledge, Falmer Creswell, J. (2013), Qualitative Inquiry & Research Design, SAGE, London

Creswell, J. (2009), Research Design: Qualitative and Quantitative and Mixed Methods Approaches, SAGE, London

Creswell, J. W. and Miller, D. L. (2000), *Determining validity in qualitative inquiry*, Theory into Practice, 39(3), 124-131

Denscombe M. (2010), *The good research guide: for small-scale social research projects 4th Edition*, Open University Press, Maidenhead

Flick, U. (2007), Designing qualitative research, SAGE, London

Greener S. (2008), Business Research Methods, Ventus Publishing ApS eBook

Hodell, C. (2011), *ISD from the Ground Up: A No-nonsense Approach to Instructional Design*, ASTD Press, Danvers MA (Accessed through Google ebooks)

Holmes G. and Abington-Cooper M. (2000), *Pedagogy vs. Andragogy: A False Dichotomy*, The Journal of Technological Studies, Volume 26, Number 2, <u>http://scholar.lib.vt.edu/ejournals/JOTS/Summer-Fall-2000/holmes.html</u>, Retrieved 18 Dec 2013

Huang, H. M. (2002), *Toward constructivism for adult learners in online learning environments*, British Journal of Educational Technology, 33(1), 27-37

Jordan, A. (2008), *Approaches to learning: a guide for teachers*, Maidenhead: Open University Press

Knowles, M., Holton, E.F., and Swanson, R.A. (2005), *The Adult Learner. (Sixth Edition),* Elsivere, Oxford

Korte, R. (2010). 'First, get to know them': a relational view of organizational socialization, Human Resource Development International, 13(1), 27-43

Macionis, J. J., and Gerber L. M. (2010), Sociology 7th Canadian edition, Pearson, Canada

Maor, D. (2001), *The Teacher's Role in Developing Interaction and Reflection in an Online Learning Community*, Educational Media International, 40(1), 127-138

Mayer, R. E. and Moreno, R. (2003), *Nine Ways to Reduce Cognitive Load in Multimedia Learning*, Educational Psychologist, 38(1), 43–52

Miles, M. B., Huberman A. M. and Saldana J. (2014), *Qualitative Data analysis A Methods Sourcebook 3rd Edition*, SAGE, London

Moodle.com1, 7 Ways to Get Started with Analytics & Reports in Moodle, <u>http://moodle.com/7-ways-to-get-started-with-analytics-reports-in-moodle/</u>, accessed on numerous occasions

Murphy, K., Mahoney, S., Chen, C., Mendoza-Diaz, N. and Yang, X. (2005), *A Constructivist Model of Mentoring, Coaching, and Facilitating Online Discussions,* Distance Education, 26(3), 341-366

Natarajan, N. K. and Nagar, D. (2011), *Induction Age, Training Duration & Job Performance*, Indian Journal of Industrial Relations, 46(3), 491-497

Palincsar, A.S. (1998), Social constructivist perspectives on teaching and learning, Annual Review of Psychology, 49, 345–375

Paas, F., Renkel, A. and Sweller, J. (2004), *Cognitive Load Theory: Instructional Implications of the Interaction between Information Structures and Cognitive Architecture*. Instructional Science 32: 1–8. (cited by Wikipedia (http://en.wikipedia.org/wiki/Cognitive_load) 6 Dec 2013)

Pappas, C. (2013), *8 Important Characteristics of Adult Learners*, Published in Concepts Wednesday, 08 May 2013, <u>http://elearningindustry.com/8-important-characteristics-of-adult-learners</u>, retrieved 19 December 2013

Rowley, J. (2014), *Designing and using research questionnaires*, Management Research Review, 37(3), 308-330

Ruey, S. (2010), A case study of constructivist instructional strategies for adult online *learning*, British Journal of Educational Technology, 41(5), 706-720

Saunders, M., Lewis, P. and Thornhill A. (2012), *Research Methods for Business Students*, Prentice Hall, London

Saxena S. (2013), *Why was Moodle the Best LMS?*, Ed Tech Review website <u>http://edtechreview.in/news/742-moodle-the-best-lms</u>, published 06 November 2013, accessed 21 May 2014

Scott, D. and Usher R. (2011), *Researching Education Data; Methods and Theory in Educational Enquiry 2nd edition*, Replika Press, India

Silverman, D. (2013), *Doing Qualitative Research: A Practical Handbook – 4th Edition*, Sage, London

Stewart, B., Briton, D., Gismondi, M., Heller, B., Kennepohl, D., McGreal, R. and Nelson, C. (2007), *Choosing MOODLE: An Evaluation of Learning Management Systems at Athabasca University*, International Journal Of Distance Education Technologies, 5(3), 1-7

Sweller, J. (2010), *Element Interactivity and Intrinsic, Extraneous, and Germane Cognitive Load*, Educational Psychological Review, 22, 123-138

Sweller, J., Van Merrienboer J. J. V. and Paas F. G. W. C. (1998), *Cognitive Architecture and Instructional Design*, Educational Psychology Review, 10 (3)

Tzanavari, A. and Tsapatsoulis, N. (2010), *Affective, Interactive and Cognitive Methods for Elearning Design*, Information Science Reference, Hershey:PA.

Whitby T. (2013), *Pedagogy vs. Andragogy*. Retrieved October 22, 2013 from <u>http://networkedblogs.com/KTGol</u>

Yin R. K. (2009), *Case Study Research: Design and Methods - Fourth Edition*, SAGE Publications. California