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'Does e_learning deliver better results than traditional classroom training?'

Dissertation

I hereby certify that this material, which I now submit for assessment of the programme of study leading to the award of Master of Science in Learning Technologies is entirely my own work and has not been taken from the work of others save and to the extent that such work has been citied and acknowledged within the text of my work.

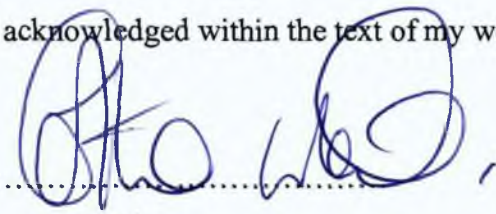

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Table of Contents

Abstract

This research was undertaken to inform an e_learning strategy being implemented in a large financial services organisation. The organisation used traditional teaching methods and was about to implement an e_learning strategy. The author of this document was charged with implementing the e_learning infrastructure and methodology for the business. To understand the contribution of e_learning the research conducted in this document was undertaken. The research focussed on examining the question 'Does e_learning deliver better results than traditional classroom training?' To establish the facts a short training programme was delivered in (a) traditional classroom style (b) through a blended learning approach and (c) through independent e_learning so that the methods could be compared and contrasted in terms of performance both from a participant and organisational perspective. Employees were invited to volunteer to participate in the study. As the organisation has 40 branch outlets it was decided to divide participants into three groups of 12. One group undertook traditional classroom training. A second group undertook a classroom event combined with e_learning event in head office. A third group undertook took the e_learning course independently at their branch office or at location of their choice. Performance outcomes were assessed on two levels. The first level was participant satisfaction. The second level was the results achieved through an assessment. The blended learning approach yielded higher levels of participant satisfaction and indeed higher levels of performance through the assessment conducted than traditional classroom training alone or through the independent e_learning approach. These conclusions have been taken on board by the business and incorporated into the learning and development strategy.

Introduction

According to Faherty (2003) "E_learning involves the use of internet technology to deliver training material to a target audience in a cost effective, productive and sustainable manner." This research thesis will examine whether or not e_learning is better than traditional classroom training or a blended learning approach.

Many organisations are now developing e_learning strategies. This activity is driven according to Pam Pervenanze, LearnSource by the following business needs:

- Global employees
- Global Competition
- Speed to market with products
- An effort to implement cost savings
- The exponential rate of change in technology
- Demand for exemplary customer service
- Demand for high quality goods and services

(Pervenanze, 2010)

"E_learning has emerged as a viable training option for corporations that need to respond quickly to constantly changing training needs" (Faherty, 2003).

The question however, is whether or not e_learning delivers better performance than traditional classroom training and is likely to replace it in the future. Performance can be measured in many ways. In this research proposal performance will be evaluated based on participant responses and on an assessment of the learning achieved.

Research reveals that a comprehensive approach to e_learning strategy development and implementation is critical to its success. There are many advantages to e_learning in terms of providing additional employee support and extending training reach and reducing costs. Flexibility and accessibility are also considerable benefits of an e_learning proposition.

In much of the research, traditional classroom training, while it has its limits is not dismissed although restrictions in terms of resources, time, cost and location apply. Essentially many of the research papers ultimately recommend a blended e_learning approach to achieve the best overall gains from an individual and organisational perspective. Chandana (2002) contends that traditional classroom training has many constraints as follows:

- Bringing the students into the classroom can result in lost productivity.
- A suitable training room may be difficult to source along with suitable trainers.
- The inability to measure the impact of the training on organisational performance.
- Traditional training is focussed towards scheduled events.
- Content is not delivered in a manner adapted to the needs of the individual.

However, according to Pam Pervenanze "it is important to keep in mind that e_learning is not the absolute solution. E_learning should be integrated into ongoing training programmes and should be viewed as a supplement to face-to-face instruction. This is called blended learning". (Pervenanze, 2010)

According to (Urdan & Waggen, 2000) e_learning covers a number of activities including computer based learning, web based learning, virtual classrooms, and digital learning and collaborations.

Also, e_learning by its very nature must sit within the organisations IT infrastructure and this has to be carefully planned at the outset to ensure its success. It is vital for success to include your IT department early in the development of an e_learning strategy. Often IT is not included until the actual implementation and this can lead to the failure of the e_learning program.

In terms of an e_learning strategy much of the research points to the requirement of support from top management. An e_learning strategy can succeed or fail on this basis. Effective change management is also considered fundamental to success (Boxall, Purcell, & Wright, 2008).

What is sometimes also underestimated is the capability of the Training Department itself to handle the change. When delivering e_learning courses, the locus of control shifts from the trainer to the participants. According to (Pervenanze, 2010) organisations will face the following challenges:

Level of effort required. If the online course is truly a student centred it will take more time on the part of the trainer. There will be e-mail communications from students to answer on a regular basis.

Change of role. The trainers will need to be able to make the change from being a trainer to a facilitator. Trainers will need to provide the necessary materials, examples and demonstrations.

New ways to teach. A powerful method of instruction is the asynchronous discussion. Trainers will need to keep participants motivated, on track and coach them.

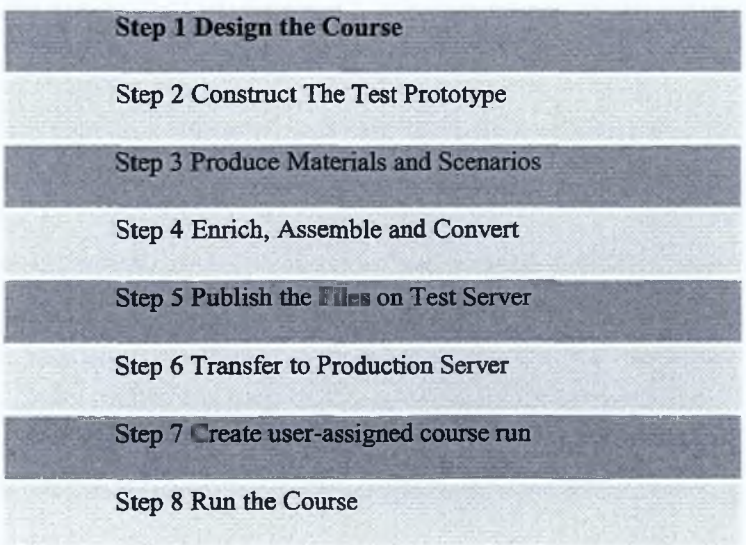
Methods of evaluation. Many on-line training courses do include assessment tests however, it is vital to ensure the training transfers back to the job and e_learning must incorporate ways to measure this.

According to Rodger Faherty, Corporate E_learning, "while technology is important, change management is crticial, without changing the processes and competencies of the corporate training professionals, manager and learners will neither adopt or benefit from e_learning on a wide scale".

The success of e_learning will also be defined by the quality of course content and the design process. E_learning courses must be designed and tested to ensure they are fit for purpose. According to Chandana (2002), Rodger Faherty, Corporate E_learning "that in order to satisfy the training requirement with the appropriate content it is important that the training provider clearly identifies the course tasks, objectives, and technology requirements, including those of the learner and author".

The following steps are recommended in learning design and workflow by the Open University of the Netherlands

Steps in Creating IMS LD based learning arrangements



The design of e_learning is a systematic and detailed process. The ISM LD learning construction process ensures that the e_learning event provides an excellent participant experience and achieves the learning objectives. (Etherington, 2008).

According to Bates, for any e_learning programme, we need to incorporate the tasks – these tasks are the ones the participant actually carries out in their work environment. Secondly, the course must provide the participant with supporting information so they can resolve the problems presented. Thirdly, there must information provided to the participants when they need it. Fourthly, there must be practice sessions for the participants to work on so that they can develop their skills (Bates, 2001).

There is a view that in future e_learning will be handed over to technologists resulting in the demise of educational value and content.

"It would seem that we have given up trying to improve traditional face to face pedagogy and handed the gauntlet over to technology as the great hope for the future. Therefore a laissez faire approach to technology in education will not produce positive educational experiences. Instead the potential downside of e_learning must be recognised and wise use of technology for both the individual and the collective good" (Etherington, 2008).

The research points to the fact that "e_learning should not be viewed as a stand-alone alternative to traditional training methods. The blended or flexible learning approach combines the best features of both to capitalise on the strengths of e_learning" (Author, 2003)

Chen, Lin and Kinshuk (2004) note that e_learning is now being implemented by almost every educational facility. This is seen as a way to deliver improved performance, better learning, enhanced speed, greater flexibility, better versatility, higher levels of interactivity along with supporting students to be more self reliant. As a result there is an unproven expectation that e_learning will provide for greater student control over their own performance and higher levels of interactivity.

In this research thesis the author will investigate the question as to whether e_learning delivers better results and better performance than traditional classroom training or a blended learning approach.

Literature Review

The overall approach taken to the review of research was to identify the most pertinent material to guide the research ideas, to broaden my understanding of the field and to critically analyse and test the conclusions.

The research involved utilising electronic resources available at the NCIRL library. In addition, web searches for good quality reputable sites such as EBSCOhost and Chartered Institute of Personnel and Development (CIPD) site.

My research was structured into five sub headings as follows:

1. Traditional Classroom Training
2. e_learning
3. Blended Learning
4. Learning Theory
5. Corporate Strategy

Classroom Training

A leading and highly successful training organisation promotes its offerings on the basis of classroom training only. This is in fact typical of many training organisations supplying to many industries. It is interesting that classroom training is still the predominant method of learning.

The IIST website outlines the following reasons to take IIST their courses:

- To learn on the job skills and techniques that have increased sales performance
- To be taught in a classroom and be provided with additional mentoring support
- To begin an exciting career with enhanced selling capability
- To be able to earn much more money quickly and at a young age
- To have an opportunity to set up your career and build for the long term
- To become part of a selling community
- To be thought by faculty known and respected in the field

The IIST is a part of the world-renowned National Insurance Academy, Pune offering world-class training for life insurance sales persons (Set up by successful Life Insurance Sales Trainers, 2005). Classroom training has been a traditional method of choice for most training, but with the advent of new technology there is a shift to delivering learning via the web 2.0. E_learning has many advantages over classroom training. An example of this transition is a study to deliver cardiopulmonary resuscitation (CPR) via on line methods. This is the first recognised provider of this type of education. They offer training and certification using methods other than classroom training. Students were able to access the learning anywhere there was an internet connection. Since then a number of programmes are now available using this method.

While computer based CPR training appears to offer many positives, several questions have been raised regarding its effectiveness compared to video self instruction and traditional classroom training. Computer based training may lead to better results in terms of knowledge and retention. However, further research is necessary and further developments in computer based CPR course considered. (Rehberd, Diaz, & Middlemas, 2009)

e_learning

Learning, facilitated by educational systems and the pedagogic process, is undergoing dramatic changes on a global basis. Instructional design development for e_learning is becoming a bigger issue. An instructional design tool for e_learning, named IDEL (Instructional Design for Electronic Learning), provides trainers with the tools to build their own courses with the necessary material and to manage communication with participants. In a commercial sense this allows companies to develop their own learning material more effectively. It is more adaptable in terms of learning build and provides for reusable resources. IDEL is a model it is a web based and is designed to facilitate course design in line with the ADDIE model and instructional design principles – the focus is on the use of technology based learning. (Zimnas, Kleftouris, & Valkanos, 2009).

Rosenberg outlines strategies for creating company-wide online learning. This goes beyond the clear technological challenges of web-based training to identify that the technology and the learning content are ineffective without a culture that is predisposed to learning in the first place. Creating the culture means changes to strategy, policy and it involves challenging organisational norms and politics. Rosenberg provides for a balance between learning structure and its successful implementation (Rosenberg, 2001).

A lot of e_learning literature starts with statements related to the dissemination of technology in learning and education. Certainly the amount of technology and its influence upon learning and education is real. One of these influences is the development of internet and the delivery of on-line education. This method of delivery has grown substantially and offers connectivity to others and access to content and sources. Until recently there has been little emphasis on the quality of the content and learning provided. This has implications for student learning and with respect to learning styles. This is supported by (Urdan & Waggen, 2000) online courses "need to develop learning activities which address different learning styles" (p. 5). This is also consistent with more recent findings by Garland and (Karen, 2002) who concluded that "when designing online courses the learning style... of all students must be considered" (Nixon & Leftwich, 1998)

It is a challenge to sustain an educated, high performing workforce in today's current economic climate. Increased competition, regulatory bodies, changing technology and cost challenges mitigate against investment in education and development. The need for training, re-training, and life-long learning and development means that staff need to be learning in diverse environments including their home, office, off-site or in the training room. To ensure this can be supported organisations are investing in technology and distance learning to help deliver training. (Schreibe & Berge, 2009)

In viewing your business response to the opportunities presented by technology and e_learning the following should be considered:

(1) business preparedness

(2) developments in learning and e_learning

(3) instructional and e_learning design

(4) change management

(5) restructuring the training department

(6) the e_learning industry

(7) personal commitment (Rosenberge, 2000)

e_learning according to Rosenberg refers to the use of internet or wireless technologies to deliver training solutions. Students access the learning from a computer, or through the intranet or from a hand held device. In 2001 Marc Rosenberg suggested the following definition of eLearning: "the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance." (p. 28). In less than two years this definition has developed to include wireless as well as internet technologies with the two technologies often working together to deliver the training event.

This research also examined the preparedness of the academic lecturers for the introduction of e_learning at the International Islamic University Malaysia. According to the report the response rate was ninety eight percent from three hundred and twenty four respondents. The initial findings showed that training in e_learning and confidence in e_learning were significant predictors of the readiness for change and e_learning adoption.

These outcomes have practical importance. Phase of the study two demonstrated that the academic staff was making progress, but more efforts would be needed in terms of infrastructure and personal capability. (Agboola, 2002).

Blended e_learning

Learning requirements and preferences of each individual person are not the same. Individuals have different learning styles which have to be accounted for. Blended e_learning tends to encompass most styles.

Organisations need to use a number of blended learning approaches in their training strategy to get the right content, to the right people at the right time. Blended learning is comprised of multiple delivery channels and media that are designed to complement and mutually support each other to promote learning.

Blended learning may incorporate several types of learning tools, for example real-time, virtual, collaboration software, self-paced, web-based courses and knowledge-management systems. Blended learning comprises of various activities, including one to one classroom events, live e_learning and self-paced learning.

Often this is a combination of traditional instructor led training; synchronous online training or conferencing, self-paced study, and workplace training from a co-worker or mentor. Organisations have a multiplicity of learning approaches and choice.

Blended learning is grounded in the idea that any learning is not simply a once off event. Blended learning has many benefits over one single learning delivery mechanism alone. (Singh, 2003). Many organisations use clear use online learning as preparation for to face to face training. Employees use the on-line facility to learning theory, and to practise practical skills in a safe environment at their own pace. The success of e-learning is down to ensuring the learning replicates the real working environment as much as possible so that the individual can demonstrate competence that relates to their day to day job. There are many benefits for the individual and these include: learning at own pace, the flexibility involved and reduction in stress. (Bennick, 2004).

The student response is very positive when it comes to the provision of online courses to enhance traditional learning. Students value flexibility from both home and on campus. (Sharpe, Benfield, Roberts, & Francis, 2006)

The term blended learning is now used frequently in both the corporate and academic world. In 2003, the American Society for Training and Development stated that blended learning was now of the top ten trends in terms of knowledge management and delivery (Carman, 2002). In 2002, The Chronicle of Higher Education quoted the president of Pennsylvania State University as saying that "the convergence between online and residential instruction was the single-greatest unrecognized trend in higher education today" (Cooze, 2007)

The first generation of e_learning or internet training programmes focused on copying and delivering classroom learning on-line. The experience gained indicated that a single mode of instructional design and delivery was not sufficient to deliver the choices, engagement, social interaction and relevance necessary to facilitate successful learning and improved performance.

The literature reveals emergence of several key themes relating to the importance of evaluation, skills training, pedagogy, human aspects, technology itself and implementation approach and there are practical recommendations to support the development and implementation of blended e-learning approaches.

Increasingly, many organisations are considering a blended approach to learning, this often results from recognition that:

- Current learning and delivery mechanism are too rigid and therefore limited
- Employee geographic spread may be a limiting factor in delivering learning
- Blended learning may provide a more flexible and more responsive way to learn

As organisations grow, an integrated, strategic, best practice approach to learning development and delivery is necessary to ensure that all employees have access irrespective of job or location (Harris, Connolly, & Feeneyz, 2009)

Learning Theory

The latest developments in the learning and technologies afford cost effective opportunities to create well designed, engaging, affordable, accessible, flexible, interactive e_learning environments. The e_learning P3 Model outlines a comprehensive process to support and identify the roles and responsibilities involved in design, development, evaluation, implementation, and management of e_learning and blended learning materials and systems (Khan, 2004)

e_learning presents a number of new opportunities at individual, organisational and societal level. However, it also presents some serious questions going forward including: How can high quality learning be assured in an e-learning environment? How can we assess if the learner is actually acquiring the knowledge in a learner centred environment? How do we provide certification of results? How do we provide equitable access to the learning technologies? (Merril, Masiel, & Wiggenhorn, 2001)?

Online courses are time consuming to create, and they may lack the advantage that emanates from one to one interaction. Some form of asynchronous activity can be monitored and acted on, but in the main participants are left to their own devices most of the time. The case for classroom learning is also untenable due to the costs involved and the fact that e-learning offers more in terms of economy of scale. Therefore, there is a case for mixing the two delivery channels. Given this is the case many institutions can see that there are many benefits in developing a complimentary on-line environment. (e.g., the Pew Grant Programme in Course Redesign http://www.center.rpi.edu/PewGrant.html).

Corporate Training

This research thesis examines a variety of issues associated with the area of corporate e_learning. E_learning involves the use of technology to deliver training material to a targeted audience in a cost effective, efficient way. E_learning presents itself as a viable option for institutions and companies which seek to respond quickly to training needs. There are a myriad of e_learning products and services and channels available to meet the majority of most organisational training needs (Faherty, 2003).

Currently there are a number of free software tools available to support e-learning design, development and management. Examples of these are Moodle LMS system, audacity audio recording and CamStudio video production software. Audacity and CamStudio enable the development of rapid e-learning whilst Moodle manages the rapid deployment of that material.

A free content movement is also emerging. An example of such a movement is the Creative Commons'. This movement allows users and institutions to use some of their content for free under certain conditions. In addition, we are currently seeing the emergence of learning object repositories. A number of these repositories provide free licensing arrangements. (Lopez, 2008).

Based on research and interviews with staff engaging in corporate e_learning it is clear that there is no one right answer for how to develop and deliver e_learning effectively. Tapping into actual needs of the organisation and the learners is the key to success. A key message is to learn from others' experiences, to utilise their skills and expertise, and where possible form partnerships with organisations with similar or complementary needs (Bennick, 2004).

It is important in any research to identify practical case study examples of the impact of e_learning in a real work context. An example is Hewlett-Packard and their move to distance learning as part of a new corporate strategy. Although not a cost saving initiative, it has delivered substantial cost savings. In order to accelerate the development of new products, field engineering was required to learn more in less time. Learners could no longer come to class, the class had to go to them. Distance learning became an integral part of Hewlett-Packard's new competitive strategy. Other companies are also convinced that distance learning works including Federal Express, Domino's Pizza, Xerox and General Motors Corporation. General Motors started the GM Satellite Network in 1984 (Portway & Lane, 2000).

E_learning continues to grow at a tremendous rate. Brandon Hall, editor of e_learning magazine predicted that by the year 2003, half of all training may be online. E_learning companies are springing up everywhere. It seems as though you can't pick up a business or training magazine without seeing articles about the benefits or the problems that are a result of e_learning. The field is growing at an amazing rate and its standards have yet to be developed or even agreed upon.

So how in the world does a training department go about implementing an e_learning program in an organisation? One way is to develop a strategy for creating e_learning courses that can serve as a guide or road map as you are working your way through the chaos (Pervenqanze, 2004).

Medical Physics and Engineering was among the first professions to develop and apply e_learning. The profession provides excellent background for application of simulations and other e_learning materials. There are several layers for e_learning development: Programming specific simulations; Building e_learning modules; Development of e_learning web based programmes. The focus is on the business learning environment that presents business organisations as dynamic, time dependent networks of business transactions. The aim is to represent real world complexity and authenticity in the learning environment (Tabakov, 2008).

This aim is justified by introducing the constructivist view of learning which supports the use of learning environments which capture the learning context as a whole. According to the constructivist principles learning tasks should also be relevant and the reason for solving problems must be authentic to the context in which the learning is to be applied. The learning environment should provide the learner with control over the learning activity and also enable the re-creation of highly realistic situations in which the learner personally experiences the content of instruction (Lainema, 2004).

It is important to emphasise that although technology has been used for over thirty years for training, through the use of 'Computer Based Training' programs, the major transformational change has been the introduction of the Internet and the ability to network people and information, regardless of time and place (Rosenberg, 2001).

In addition Rosenberg emphasises that training should have a clear return on investment. Corporate training should be focused on performance improvement. There is no one model that is right for an organisation. Each of the organisations develops a different model to suit their own circumstances. Each organisation must assess its own needs to develop a unique model that may be based on what has been shown to work effectively for others (Rosenberg, 2001).

Hypothesis/Research Question

The research question is 'does e_learning deliver better results than traditional classroom training?'

The hypothesis is that the outcome of this research will demonstrate that neither in fact is more effective than the other but that a blended learning approach is best which involves identifying and utilising the best attributes of both.

The null hypothesis is that there will be no difference in the three training conditions. Condition 1 is training delivered to 12 participants in traditional classroom approach. Condition 2 is training delivered to 12 participants through a blended e_learning approach. Condition 3 is training delivered through independent e_learning. All groups are staff members of the same organisation.

The Method

The participants were selected from the same company. An email invitation was circulated. The groups were selected from the people who elected to participate. Fifty people applied to participate and each person was asked to their level of computer literacy on a scale of 1 to 3. One being poor and 3 being excellent. The purpose of this rating was to ensure each group had the same level of competency. Each of the groups had 4 candidates selected randomly from each computer literacy category.

Research Design

The participants were divided into three groups – traditional learning delivery classroom group, the blended e_learning group and the independent e_learning group. The outcomes were tested at two levels (1) on participant overall satisfaction (2) assessment of the learning. To identify significant differences in the outcomes an independent t-Test test was completed. The independent variable was a one hour training programme on the Data Protection Act.

There were no particular ethical issues addressed as the Data Protection Act (1998, 2003) training was to be done by all employees in the organisation. The only issue presenting was the consent of the individual to allow their scores to be utilised as part of this study.

The Procedure

The procedure was to measure the performance of three different groups. Group 1 received traditional classroom style training. Group 2 received a blended e_learning approach. Group 3 participated in independent e_learning from a location of their choice.

Procedure 1 – Traditional Classroom Training

The training was undertaken in a fixed location in Head office - the room is a dedicated training room. The time chosen was 9am. The training duration was 1 hour and was based on the Data Protection Act (1998, 2003). The training was delivered by an Instructor. It consisted of a power point presentation. It also incorporated a 3 minute video. The assessment was based on the content in the presentation and related to the learning objectives. At the end of the training participants were asked to complete a short assessment. Participants had to achieve a score 70% to pass the assessment. [See appendix 3] In addition participants were asked to complete a learning evaluation questionnaire to ascertain levels of satisfaction [See appendix 4]. It took two days to deliver feedback to participants and the facilitator compiled and calculated the scores of the learning event himself.

Procedure 2 – Blended Learning

The training was undertaken in a fixed location in Head office - the room is a dedicated training room. The time chosen was 9am. The training duration was 1 hour and was based on the Data Protection Act (1998, 2003). The training was delivered by an Instructor. Participants logged on to Moodle and accessed their learning material. The training had the same learning objectives and content as the training delivered by classroom and power point.

It also included the 3 minute video. Participants were able to access the slides, go back and forth at various points and replay the video. The instructor provided time for e_learning and also delivered some of the programme directly. The assessment was conducted on line and a score of 70% was also required to pass the assessment at the end. To keep conditions similar participants could only complete the assessment test once. The assessment feedback was immediate so participants knew their scores before leaving the learning event. In addition, the participant evaluation form was completed on line and the Instructor also knew the outcome before participants left the room.

Procedure 3 – Independent e_learning

Participants were e-mailed an informed of the instructions to go on line. [See Appendix 2] Participants were given one week to complete the 1 hour training programme. The training again was based on the Data Protection Act (1998, 2003). With respect to accessing the material, local trainers provided technical support where difficulties arose. An IT help desk number was also provided and trainers were on hand should support be required. The participants were fully empowered to pace their own learning. All participants elected to complete the training at branch learning stations rather than complete the training at home. Participants were supplied with headsets and an e_learning guide. The training had the same learning objectives and content as the training delivered by classroom and power point. It also included the 3 minute video.

Participants were able to access the slides, go back and forth at various points and replay the video. The assessment was conducted on line and a score of 70% was also required. To keep conditions similar participants could only complete the assessment test once. The feedback was immediate so participant knew their scores before leaving the learning event. In addition, the participant evaluation form was completed on line and the Instructor knew the outcome before participants left the room.

Results

Table 1: Results of three Groups in the Study

Group	N	Assessment			Satisfaction		
		Mean	Std.	p	Mean	Std.	p
Classroom Base Line	12	72.25	4.56		79.80	3.77	
Blended	12	83.67	4.11	0.000	84.92	2.88	0.005
On-line	12	78.50	4.59	0.005	73.25	5.29	0.004

Table 1 above shows that the classroom training with 12 participants achieved a mean score of 72.25 on the assessment and a satisfaction score of 79.8. This was the baseline against which the other two conditions were compared using an independent t-test.

The blended learning condition showed a mean assessment result of 83.67 and an independent t-test resulted in a p-value =0.000 which shows a significant difference between the classroom training and blended learning approach indicated by a $p < 0.05$.

The on-line learning condition achieved a mean assessment result of 78.5. An independent t-test resulted in a p-value=0.005 which again shows a significant difference between classroom and on-line training indicated by a $p<0.05$.

In relation to participant satisfaction the results were again compared against a baseline of classroom training. The blended learning condition showed a satisfaction score of 84.92 with a p-value=.005. This again reveals that a significant difference exists. The on-line learning condition produced a satisfaction score of 73.25 with a p-value=.004. These results show a significant difference in the blended learning approach as compared to classroom training alone. The training when delivered by e_learning scored higher than classroom alone but lower than the blended learning approach.

Discussion

The study was to determine if e_learning resulted in a better learning outcome and performance than classroom training or a blended learning approach. The results demonstrate that indeed on the two dimensions assessed blended e_learning performed significantly better. This is consistent with all of the research findings.

The study outcomes do assist in informing an e_learning strategy. For example, the employees who participated in the independent e_learning event, found the facility very good, however, the absence of class interaction was viewed as its biggest constraint. In remote situations the main benefit was cited as being the flexibility, ease of access, ability to revisit the learning before completing the assessment.

A key limitation of the study is that it was based on a 1 hour learning event. It is likely that many of the participants had come across the subject matter prior to the learning event and therefore it was not overly complex. The lessons learned may not be directly transferable to a larger more complex environment e.g. a 20 hour training event.

Another observation is that the participants actually volunteered therefore, they may be more motivated and positive and this can have an impact on the results for all tests as this would be similar to the 'hawthorn effect'.

A positive outcome from this research is that it can provide a degree of confidence in e_learning as a learning delivery channel. In addition, the staff who participated in the study were advocates for the new learning environment and liked the e_learning experience and in particular the immediate feedback they received on their own performance.

The learning theory points out that people learn in different ways therefore, there is an opportunity to investigate further how the impact of learning styles can be accommodated through a blended learning approach.

This research is important in that the conclusion leads us to believe there are merits in the traditional classroom training approach and the e_learning approach. The main conclusion indicates a blended learning approach is best.

The research suggests that further investigation is needed relation to blended learning with particular focus on its potential strength in terms of delivering training events that are of longer duration, more complex, modular in structure and requiring continuous assessment.

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Appendices

Appendix 1: Data Protection Act (1998, 2003)

Data Protection

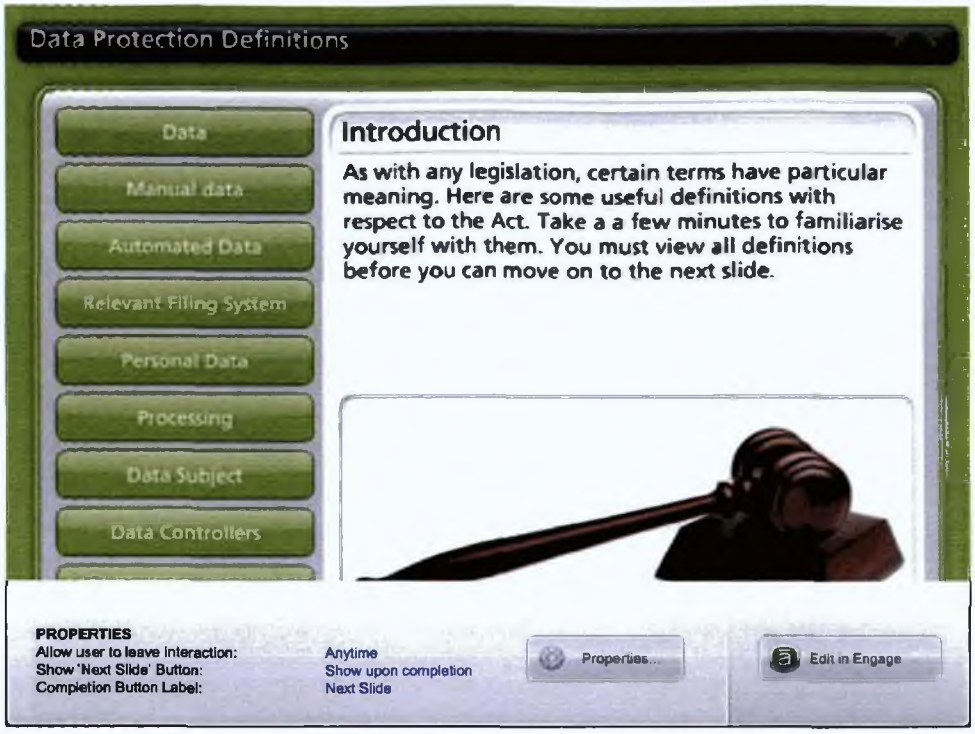
Please ensure your earphones are connected and turned on as this course contains audio and video.

Data Protection

Objectives

At the end of this course you will:

- Understand the 9 rules of the Data Protection Code of Practice for the insurance sector
- Be able to apply the 9 rules to your role
- Know where to get additional information
- Understand the legal requirements when dealing with Data


Data Protection Definitions
Data
Manual data
Automated Data
Relevant Filing System
Personal Data
Processing
Data Subject
Data Controllers
Introduction
As with any legislation, certain terms have particular meaning. Here are some useful definitions with respect to the Act. Take a a few minutes to familiarise yourself with them. You must view all definitions before you can move on to the next slide.
PROPERTIES
Allow user to leave interaction: Anytime
Show 'Next Slide' Button: Show upon completion
Completion Button Label: Next Slide
Properties...
Edit in Engage

Appendix 2: E_learning Guidelines

FBD

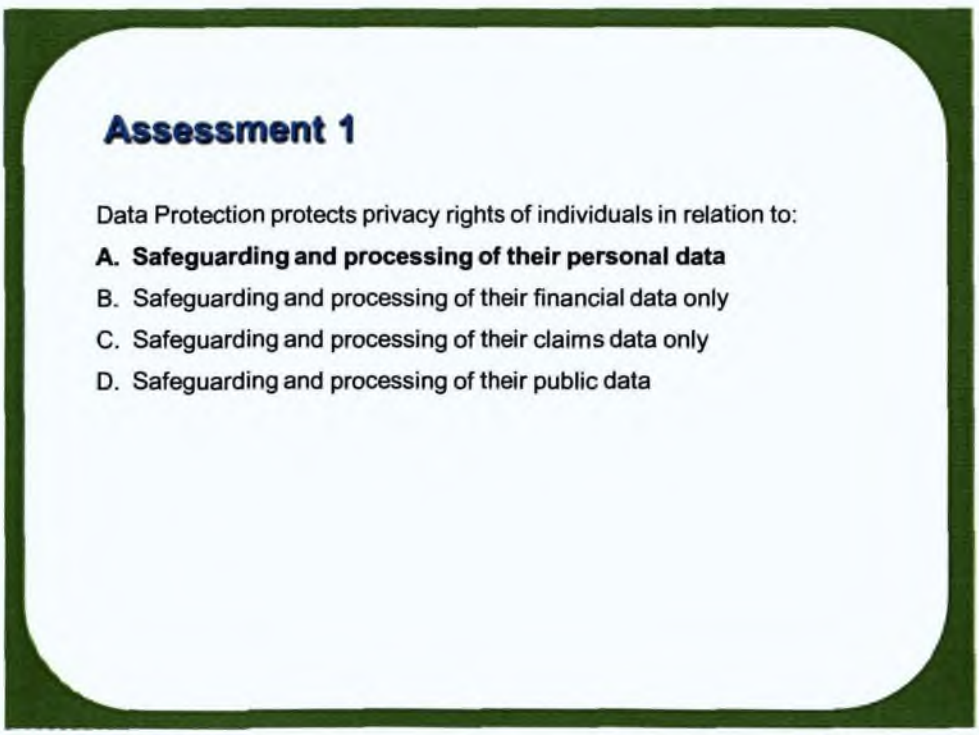
My e-Learning Guide

Version 1.1

Page 1 of 22

Contents

Appendix 3: Learning Assessment



Assessment 2

A 'Data Controller' if found guilty of an offence under the Data Protection Acts can be fined up to:

A. €250,000

B. €100,000

C. €10,000

D. €1,000,000

Assessment 3

The main Irish law dealing with Data Protection is:

A. Data Protection Acts 1988 and 2003

B. Consumer Protection Code 2007

C. Data Safeguarding Act 1986

D. Personal Data Act 1988

Assessment 4

Under the Data Protection Act 'Data' means:

A. Computer held records only

B. Telephone recordings

C. Manual records only

D. Automated and manual data

Assessment 5

Under the Data Protection Act 'Data Controller' means:

A. Those who control the contents and use of personal data

B. A person who processes personal data

C. A person who deals with customers

D. Those who control financial data and the use of same

Assessment 6

Based on the Code of Practice for the Insurance sector the collection of data by insurers happens at three main stages

A. Inception, Renewal and Cancellation stage

B. Notification, Investigation and Settlement stage

C. Proposal, terms of the policy and claims stage

D. Proposal, renewal and claims stage

Assessment 7

Under the Code of Practice for the Insurance sector how long can a quotation be held for the purposes of checking fraudulent applications:

A. One year

B. 15 months

C. Two years

D. For as long as the insurer requires the information to be held

Assessment 8

The security of personal data held on laptops falls under the Data Protection Act:

A. True

B. False

Assessment 9

It is the responsibility of the 'Data Controller' to ensure Data is kept accurate complete and up to date:

A. True

B. False

Assessment 10

The information that a 'Data Controller' can collect from a customer must be adequate, relevant and not excessive

A. True

B. False

Assessment 11

Data Controller is entitled to hold information after the ending of a policy for up to:

A. Two years

B. Three years

C. Five years

D. Six years

Assessment 12

Where a customer makes a formal request for Data under the Data Protection Act, a 'Data Controller' must supply this information within:

A. 14 days

B. 21 days

C. 30 days

D. 40 days

Assessment 13

Information held by private investigators on behalf of insurers is exempt under the Data Protection Acts:

A. True

B. False

Assessment 13

Information held by private investigators on behalf of insurers is exempt under the Data Protection Acts:

A. True

B. False

You have achieved over 70% in the assessment.

Congratulations.

Thank you.

Appendix 4: Employee Evaluation Form

Learning & Development Department

Module:_____ Facilitator:_____ Date:_____

Participant Name and Department (optional):_____

Please rate the module by marking a tick in the box which best describes your opinion.

A: The Module	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
This module was a worthwhile learning experience					

If someone asked you about this module what would you say?

Were the learning objectives met? Yes / No

Was it pitched at the right level? Yes / No

B: The Facilitator (if relevant)	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The pace was right					
I was encouraged to participate					
The training content was good					
The facilitator kept my attention					
The facilitator checked for understanding					

Learning & Development Department

C: e-Learning (if relevant)	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The facility was easy to access					
The navigation was easy to understand					
The training content was good					
It kept my attention					
Checked for understanding at various points					
I could pace my own learning					

Overall Comments:

Thank you for taking the time to complete this