

E-Learning: First Steps with Computers

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Sample

## Abstract

Due to the projects nature in which a self-study computer course, about a specific group of society was to be designed, and the products success dependant upon research, both types, primary and secondary were sought.

The primary research involved viewing a working computer literacy course, in which the designer listened to what the users had to say and a questionnaire was given out to a sample of 30 people. A highlight of the results is given below however; the full results are shown in appendix E.

60% of people said they owned a computer, 36% of the older generation came to the course to develop basic computer knowledge with 15% wanting to gain a specific skill, such as using the Internet and 76% of people said they would find an interactive self-study course on CDROM useful.

The secondary research was more in-depth, and involved using the Internet, books, and journals to gain the information required. The areas that were looked at are: The elderly, who are deemed to be of pensionable age, 60 for women, 65 for males, and are a high percentage of the United Kingdoms population but despite this are a forgotten user when it comes to computer usage,. Their health issues, such as short-sightedness, learning theories and usability issues in design were all discussed.

## Acknowledgements

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## 1. Introduction

The objective of this dissertation was to create a self-study introductory computer literacy course to be aimed at a specific user. When the user finishes the course, they will be able to tackle a number of tasks. Using word processing software to write letters or learning how to use the Internet and sending emails are all basic examples. All of which could help to improve their lives.

For the purposes of this report the writer will refer to himself as the 'designer'

The specific aims that were had for this project are:

- ❖ To expand the designer's knowledge of the older person
- ❖ For the CD-ROM to be successful at teaching the elderly people about computers and how to use them.
- ❖ To broaden his experiences and skills in designing interactive CD-ROMs, using software such as Macromedia Director, Adobe Illustrator and Adobe Photoshop.

The project will try to demonstrate that the elderly have different needs and learning styles to that of other computer users; In addition, the designer is hoping it will make other users more conscience about accessibility issues.

On a personal level, it will demonstrate the designer's skills as a web, multimedia and graphics student.

Motivation for choosing this was to due to a recent employment position the designer held, teaching underprivileged children how to use computers, he found it challenging, rewarding and enjoyable and it made him want to improve his understanding of how certain members of society learn.

## 2. Primary research and the findings.

In order to get an insight into the target user, and how they learn, the designer could of mainly used secondary research, however to achieve his aim of a better understanding and for the project to be successful the designer wanted to see for himself what is entailed in a computer literacy course.

Firstly, information on the numerous centres dealing with computer literacy courses aimed at the target users was sought. The organizations that were looked into were:

- ❖ Learn Direct
- ❖ Age Concern
- ❖ NIACE

Emails were then sent to each of these to gain basic information on whether they were relevant for the study, and a copy can be seen in Appendix B.

NIACE, the National Institute of Adult Continuing Education is a company dedicated to helping older people. They replied stating that they were more concerned with publications and advised to get in touch with Age Concern.

Age Concern replied (Appendix C) with names and address of places that held computer literacy courses for the elderly but were in Preston and the surrounding area, however due to no transport other options were sought.

In 2002, the designer worked at Langworthy Cornerstones in Salford as an instructor on a computer course aimed at helping children. He contacted the course organizer and gained details of when a suitable course was available. The course was run throughout the year as part of Learn Direct and lasted for ten weeks. The course was aimed at the desired age and when completed, the users achieved the European Computing Driving License (ECDL) qualification.

The course ran on two days: Monday evening from 6pm until 9pm and Thursday 9am to 1pm

During two weeks in October, the designer arranged to sit in midway through a course on both days. To prepare for this, a questionnaire was designed (Appendix D). The aim for the questionnaire was to gain an insight into computer usage by the older generation and the features that are the most beneficial to them when learning, the option of visiting on both days gave a bigger sample of results.

### Findings

The results from the questionnaires were the bulk of the findings:

63% of the users asked were female, 60% of the total sample owned a computer, 36% of the sample came to the course to learn basic knowledge, and a surprise result was that only 16% came to learn a specific skill, like email.

With regard to question five, 66% of the sample wanted a quiz to give them feedback on how well they were doing, 56% wanted neutral colours, and 33% thought large text was essential when learning. As these are all high percentages, they are a predominant feature in the product. (For the full list of results, see Appendix E) Findings from viewing the course in action are also relevant.

The course was delivered by the instructor at the front of the room, in two ways, through a lecture style in which systematic instructions were handed out, and by a visual process, where the instructor went through the lesson on a computer linked to a projector screen.

After discussing informally with the users which style they preferred, over half said they found it difficult to follow the handouts and preferred a visual style, although they did stress that if he was to use this approach, to be clear, which was noted.

The users also stated that the course was well structured and that before the lesson started they knew what would be involved which made them at ease when learning a new subject. This led to the conclusion that in order to reduce the risk of anxiety when designing the product, structure was vital.

Webster. M (2004)

### 3. The target users

This section looks at the intended users that the CDROM is designed for

For example, Betty is a woman of age 70, she has never used a computer before and has health issues such as anxiety and short-sightedness, and despite this wants to be able to use a computer to write e-mails to friends.

The target group focussed upon are the elderly, however to prevent discrimination the designer will refer to them as older persons or the older generation.

According to the National Statistics 2003, the term older person is someone male or female, who is of retirement age and shall be the definition used.

United Kingdoms population based on mid-year estimates was 59,229,000. Of this figure, 18.4% were over pensionable<sup>1</sup> age

(For the full list of statistics, see Appendix F)

Mintel (2004)

As you can see from these figures, the older generation represent a vast amount of the United Kingdoms population and due to advances in medicine is likely to increase but despite this, the older generation are an ignored market when it comes to computers.

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<sup>1</sup> pension age is deemed by the government to be 60 for women, 65 for males

#### 4. The older generation and computers

At a first glance, many of the statistics describing computer and Internet activity among older people are discouraging. In 1998, people aged 55 and older trailed all other age groups for both computer ownership and Internet access. Seniors are the least at ease with using the Internet and in considering themselves experienced or skilled Internet users (Bucar, A. et al. 1999). However, statistics show that the tide is slowly changing and once elders become avid users, their online skills and activities do not differ much from other age groups.

This is also confirmed by SeniorNet, a volunteer run non-profit organisation of senior citizen PC users who in mid 2001 randomly surveyed 603 senior adults (Avalos, G. 2001). The survey found that 70% of computer owners 55 or older have internet access at home, which is an increase from 17% in 1955. This increased usage has come at a time when the government has increased spending on technology, such as broadband.

The document titled Broadband Britain Vision and Goals 2005-2010 explores the nature of the vision and goals of the government to increase availability of broadband and have it installed in every home by the year 2010.

Cape, J. (2004)

Elderly people are living longer, and are often living alone, geographically separated from family, coupled with the astonishing rates of growth in computer usage, particularly the Internet it is no wonder that they are seeking to join the computer age.

Deets, H. B. (1999)

## PC USAGE AMONGST THE TARGET USERS

According to Packard Bell Electronics, who are a leading supplier of personal computers used in the home, they annually conduct surveys of purchasers of their products. Their latest research indicates the following breakdown of senior adult PC usage: (For the full list see Appendix G.)

- ❖ Used most often for personal correspondence (e-mail) with family and friends. (72%)
- ❖ Used to research a particular issue or subject. (59%)
- ❖ Used to access news. (53%)

Avalos, G. (2001)

These findings played an important role in deciding what subject matter to use as a learning basis for my CDROM

However, there are currently two obstacles regarding the synergy between these two revolutions. First, the bulk of the lifespan of the current elderly population has been spent when personal computing technology did not exist. Fortunately, the next generation of elders should be more familiar with computing technology, and the "technophobia" of the current generation appears to be dissipating. Second, and more seriously, the elderly face a number of technology accessibility impediments related to income and education, and technology usability impediments related to physical, mental, and cognitive impairments.

Some effective strategies exist for addressing these accessibility and usability needs and were researched and implemented into the final product.

## THE EVIDENCE OF EXCLUSION

The majority of older people have a purpose for learning however; statistical evidence shows us that older people are not a visible cohort in today's society. NIACE's annual surveys of participation in adult learning consistently show people over the age of 55 being the least likely to participate in any form of adult learning, with participation decreasing with age.

In 2004 NIACE's participation survey reported only 10% of people over the age of 75 currently or recently participating in learning, compared with 14% of those aged 65-74 and 30% of those aged 55-64.

Aldridge, F and Tuckett, A. (2004)

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