

# Evaluation of an Online Student Induction and Support Package for Online Learners

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## Abstract

This paper describes an evaluation of an online Student Induction and Support Package used to prepare both face-to-face and fully online students for learning online. It provides an overview of two components of the Package, the Primer and Survival Guide. It details the type and the nature of the student feedback requested via an online questionnaire and presents the results obtained.

Key findings suggest that using the same online Induction and Support Package for both face-to-face and fully online students is effective. Results also suggest that even those who self-report high levels of IT literacy prior to commencing a course of online study, can still benefit from completing such a Package.

A rationale for using an online Student Induction and Support Package and some possibilities for future research are also discussed.

## Keywords

Online learning; online teaching; online student induction; online student support.

## Topics

- Introduction
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## Introduction

The advantages of using Computer Mediated Communication (CMC) technologies and Information and Communication Technologies (ICT) to enhance educational opportunities for students, particularly, those studying at a distance and adult learners, have long been recognised (Paulsen, 1995; Berge and Collins, 1995; Sherry, 1996; Chickering and Ehrmann, 1996; Berge, 1998; Salmon, 2000; Rovai, 2002; Herring, 2004; Hawkey, 2004).

Online technologies are enabling educators in higher education (HE) to reach beyond the conventional classroom and diversify distance learning opportunities. Many universities now use Virtual Learning Environments (VLEs) or a combination of ICT tools to offer online learning programmes to global audiences (Rovai, 2002; Hislop and Ellis, 2004). Rajasingham (2005) suggests that 'Global virtual universities reflect a new paradigm of higher education and so they will need to foster a strong research culture.'

Although such exploitation of online technologies is enabling widened access and participation, it must be recognised that the online learning environment is vastly different from the traditional face-to-face setting. As students need to develop new skills to learn effectively online, one of the major challenges facing educators is the provision of an appropriate induction and support programme, which aids students with the transition to online learning and suitably equips them with the specific skills they require to succeed.

Although it is acknowledged that student induction and support is an extremely important aspect of online learning (Govindasamy, 2002; Rekkedal, 2004), there is no exhaustive universal model or blueprint advising which student support services should be provided for distance learners (Tait, 2000; Scheer and Locke, 2003). Tait (2000) has commented that while extensive literature exists on the methodologies used to produce open and distance learning materials, relatively little exists on how student support is planned and managed. He has suggested that ICT enables educators to rethink student support and may lead to more "uniformity in global terms in the ways in which services to students are delivered in the future" (p 288). He has advised that educators need to investigate what elements of support can be delivered or supplemented appropriately using ICT.

Many writers have emphasised the importance of providing direction and support for learners who may be uncomfortable with the new learning environment, as online learning often frustrates students, if they do

not have the necessary skills to succeed (Ludwig-Hardman and Dunlap, 2003). Kennedy and Duffy (2004) have noted that online students need to be trained in how to use the technology and helped to overcome any technical difficulties. As students also have to take responsibility for their own learning (Johannesen and Eide, 2000; McLoughlin and Marshall, 2002) through self-directed study, study skills training may also be required (Forsyth, 2003). Lorenzi *et al.* (2004) have identified a need for a programme specifically designed to prepare students for learning online and Govindasamy (2002) has suggested that the student support required for online courses is different from that required for face-to-face courses, as students cannot request support on a 'supply-and-demand' basis.

## The University of Ulster's Approach to Student Induction and Support

In recent years, the University of Ulster (UU) has had to adapt the delivery modes of its educational programmes to best suit the needs of its diverse and ever-changing student population. In 2001, UU launched a virtual campus, Campus One. UU uses the VLE, WebCT, to deliver online education programmes to its online students. It also utilises WebCT to web-enhance the delivery of face-to-face on-campus modules.

This paper will use the term 'online learning' to refer to the use of any form of online technology to support two types of online learners in the University of Ulster: off-campus students who take their entire course online; and on-campus students who use online technology to support their learning.

To prepare students for online learning, UU designed an online Student Induction and Support Package. Initially, the Package was targeted only at fully online students but it was soon realized that it could also be of benefit to the many face-to-face students who use WebCT. As many modules studied at UU now have a WebCT component, it was felt necessary to equip these students with the skills required to learn via this new medium and make best use of the technologies available to aid their learning.

Both the Primer and Survival Guide are made available to students (as content modules) within the same WebCT 'Student Induction and Support Package' module area. An overview of the structure of each of these components is provided below.

### The Primer

All UU students are given access to the Primer once they have completed registration, prior to the commencement of their course. Students are advised to work through the Primer, to help them prepare for learning online. It is anticipated that it should take about an hour to complete it.

The Primer has two main parts:

- Part 1 - Preparing for your Online Course (The Technical Issues).
- Part 2 - Being an Online Student (The Personal and Practical Issues).

Part 1 provides the following:

- Information about how to get started using WebCT.
- Details about technical requirements with an opportunity to test computer for compliance with the basic technical requirements.
- Guidance on how to use a Web browser and customise Web browser settings as required.
- Information about technical support.
- Access to various IT resources aimed at helping students prepare presentations, design and develop databases, create and manipulate spreadsheets, produce word-processed documents and analyse and present statistical information.

Part 2 provides the following for students:

- Information about the delivery and structure of online courses.
- Advice on how to communicate and collaborate with tutors and fellow students using WebCT communication tools.
- Access to a variety of Study Skills guides, such as, Time Management, Managing Stress, Concentration, Motivation, Setting Goals, Group Work, Research Skills and Evaluating Internet Resources etc.
- An explanation about the assessment methods that may be used during a course.
- Guidance on how to record, cite and present references in written assignments as well as tips on how to avoid plagiarism.
- Information about student support with links to the University's Counselling and Guidance Service, Student Health Care and the Careers Service.
- Just for fun 'Test Yourself' quizzes/activities for students to self-test their retention of information in the Primer are available throughout the Primer.

### The Survival Guide

The Survival Guide is designed to provide an overview of each of the tools in WebCT for students to refer to (as needed) throughout the duration of their online studies. Students are not expected to complete all of the Guide prior to commencing online study but are advised to dip in and out of it as required throughout their studies. Students are advised that they need to complete some of the hands-on activities within their actual module areas (not within the Guide) to practise using the tools with their fellow participants. Staff, developing module content, are advised to direct students to the appropriate part of the Guide, when a new WebCT tool is introduced.

The Survival Guide is designed to help users gain theoretical knowledge and practical experience of each of the WebCT tools used within their modules. The Guide is divided into sections which cover the following:

- Communication Tools, such as, Mail, Discussions, Chat and Whiteboard tools.
- Course Content and Related Tools, such as, Content Modules, Calendar, Glossary, Search and Compile tools etc.
- Evaluation Tools, such as the Quiz and Survey tools etc.
- Study Tools, such as, the Student Presentations, Student Homepages and Take Notes tools etc.

A quiz which provides corrective feedback is available at the end of each section. This enables students to

evaluate their understanding of each of the tools.

## Aim

An aim of this study was to evaluate the effectiveness of two important online components of the Student Induction and Support Package offered by UU (that is, the Primer and Survival Guide). In particular, the study aimed to examine satisfaction levels and identify whether these components of the Package could adequately equip students with the skills for successful online learning. This study was also interested in establishing whether the same Package could be delivered successfully to support all types of learners using WebCT, that is, both fully and partially online students. It is important to note that the study did not focus on the support students receive before application, registration and admission, or the library support, helpdesk support, academic and study skills support they receive whilst studying their modules online. The examination of these is beyond the scope of this study.

## Methodology

Both the Primer and Survival Guide were evaluated using separate online questionnaires designed and delivered through the WebCT Survey Tool. All responses were anonymous. Some students may have completed both questionnaires. The questionnaires were made available to students for the duration of a new academic semester (September 2004 - January 2005). The same questionnaires were used for both fully online and face-to-face students, taking modules where WebCT was utilised as a support medium. Throughout the semester, reminders and announcements, asking participants to complete the questionnaires, were posted on the students' 'MyWebCT' pages and within the WebCT Calendar facility in the Package.

Each questionnaire was designed using Likert scale questions (Strongly Agree, Agree, Disagree etc.) with some free response questions. A number of the questions in the two questionnaires were the same. However, some questions were different, due to the need to evaluate the different aims and learning outcomes of the Primer and the Survival Guide. Students were encouraged to qualify their (quantitative ratings) responses with additional qualitative information. This facilitated further exploration of student attitudes to the Package and also clarified certain issues not able to be covered in the more specific quantitative questioning.

The Package was evaluated as to its effectiveness and usefulness, with students asked to rate their overall satisfaction with the content, structure and usability of the Primer and Survival Guide. Furthermore, students were specifically asked whether they felt the Package had equipped them with the necessary skills and knowledge to study successfully online. In particular, respondents were asked whether they felt that the Primer and Survival Guide effectively introduced them to the VLE and facilitated their understanding in relation to use of the VLE tools. In addition, students were asked to rate their levels of confidence relating to various technical issues, such as, their ability to test their computer for compliance with basic technical requirements, use a Web browser, download plug-ins, and most importantly, seek technical assistance, if required.

Specific focus was given to the effect of the Package on IT competency, with students asked to rate their IT literacy before starting their online course and then asked to determine whether their IT skills had improved as a result of working through the Primer and Survival Guide.

Students were also invited to provide feedback in relation to the communication tools available in the VLE, and in particular, were asked whether they would prefer the opportunity to use them to communicate with other students at the induction stage, rather than just within their module areas.

All statistical analysis of the questionnaires was carried out using SPSS.

## Results

It is UU policy to give all registered students access to a WebCT area for each of the modules they are registered on, regardless of whether their course makes use of it at that time or not. In addition, all newly registered students are given automatic access to the Student Induction and Support Package within one WebCT module area (some 24,000 students).

## Demographics

Giving all registered students automatic access to the Student Induction and Support Package makes it more difficult to identify exactly how many students used both the Primer and Survival Guide as a requirement of their course. A total of 5064 students logged into the package during the first semester (between September 2004 - January 2005). However, only 3937 of these only accessed 10 pages of the Package and a further 534 only accessed between 11 and 20 pages, which would suggest they did not make full use of the Package. It is possible that these students accessed WebCT out of curiosity and briefly accessed the Induction Package because it was available, rather than because it was a course requirement to use WebCT.

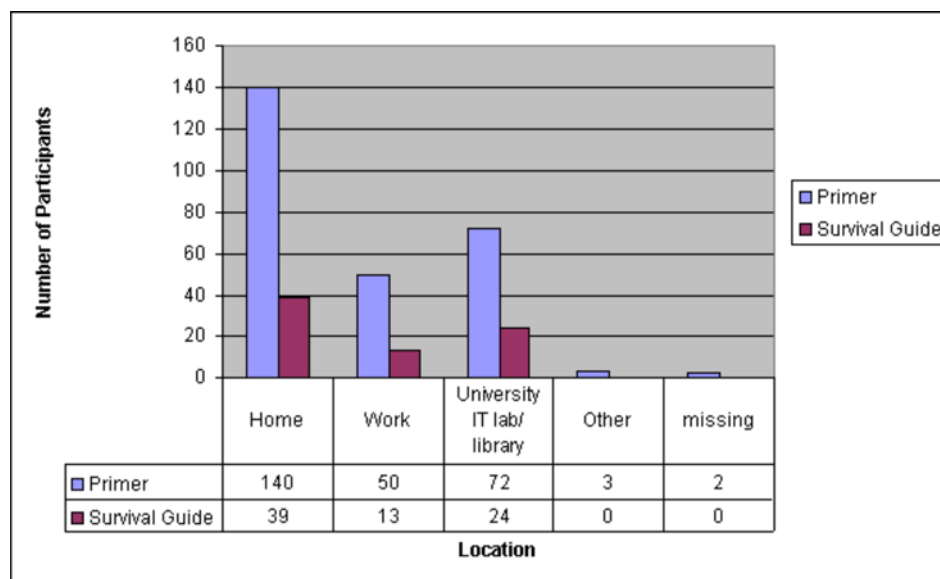
If we assume, for the purposes of this paper, that anyone who accessed more than 20 pages of the Package was an active user of the Package, then we can approximate that 593 students used the Package. Of these, 277 made between 21 and 50 hits, 197 made between 51-100 hits, 111 made between 101 and 500 hits and 8 made more than 500 hits. The maximum number of hits was 938.

A total of 343 anonymous questionnaires were returned (267 Primer and 76 Survival Guide). The gender ratio was 66.6%/33.3% (N=177/89) female to male for the Primer and 68.4%/31.6% (N=52/24) for the Survival Guide.

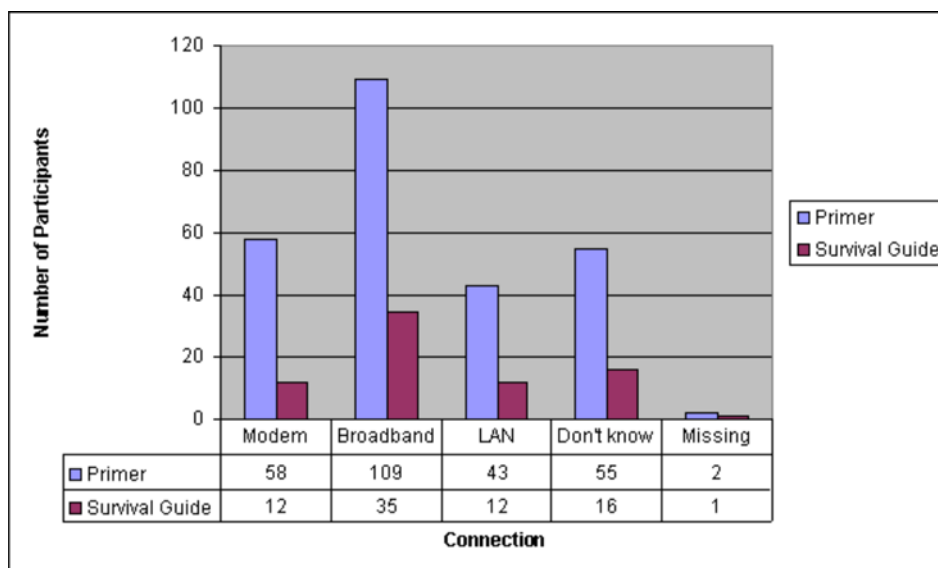
Some 64% / 54% of respondents to the Primer and Survival Guide respectively described themselves as fully online students, with 36% / 46% describing themselves as students on face-to-face courses, which use WebCT. More than half (52% and 51%) accessed the Primer and Survival Guide from home (see Table 1 and Figure 1). The types of Internet connection utilised by students is illustrated in Figure 2. Of the respondents, 41%/46% used Broadband to connect to the Internet.

**Table 1.** Status, Location and Internet Connection most frequently used to access the Primer and Survival Guide

	Primer (N)	Survival Guide (N)	Primer (%)	Survival Guide (%)
<b>Status</b>				
Fully online	172	41	64	54
Partially online	95	35	36	46
<b>Total</b>	<b>267</b>	<b>76</b>	<b>100</b>	<b>100</b>
<b>Location</b>				
Home	140	39	52	51
Work	50	13	19	17
University IT lab/ library	72	24	27	32
Other	3	0	1	0
Missing	2	0	1	0
<b>Total</b>	<b>267</b>	<b>76</b>	<b>100</b>	<b>100</b>
<b>Internet Connection</b>				
Modem	58	12	22	16
Broadband	109	35	41	46
LAN	43	12	16	16
Don't know	55	16	21	21
Missing	2	1	1	1
<b>Total</b>	<b>267</b>	<b>76</b>	<b>100</b>	<b>100</b>



**Figure 1.** Location of Internet Connection most frequently used to access Package



**Figure 2.** Type of Internet Connection most frequently used to access Package

### Respondents' Level of IT Literacy before and after using Package

Of the respondents who completed the Primer, 74.6% rated themselves as either IT literate (58.3%) or very IT literate (16.3%) before completing it. Despite this high rating, 69.8% felt that their level of IT literacy had improved upon completion. A significant correlation was found between the level of IT literacy before and perceived improvement (Spearman's rho rank correlation,  $r=.265$ ,  $n=264$ ,  $p<0.01$ ). 79% of those who completed the Survival Guide, rated themselves as either IT literate (55.3%) or very IT literate (23.7%) before completing it. Despite this high rating, 68.4% felt their level of IT literacy had improved upon completion (see Tables 2 and 3 below). Again, a significant correlation was found between the level of IT literacy before and perceived improvement (Spearman's rho rank correlation,  $r=.262$ ,  $n=76$ ,  $p<0.05$ ).

**Table 2.** Student Perception of IT Literacy before using Package

	% Very IT literate (N)	% IT literate (N)	% Not very IT literate (N)	% Limited IT experience (N)	% No IT experience (N)
<b>Primer</b>	16.3 (43)	58.3 (154)	13.3 (35)	11.4 (30)	0.7 (2)
<b>Survival Guide</b>	23.7 (18)	55.3 (42)	11.8 (9)	9.2 (7)	0 (0)
<b>Total</b>	17.9 (61)	57.6 (196)	12.9 (44)	37 (10.9)	0.6 (2)

**Table 3.** Student Perception of whether IT Literacy had improved after using Package

	% Yes (N)	% No (N)	% Total (N)
<b>Primer</b>	69.8 (185)	30.2 (80)	100 (265)
<b>Survival Guide</b>	68.4(52)	31.6 (24)	100 (76)
<b>Total combined</b>	69.5 (237)	30.5 (104)	100 (341)

### Overall Satisfaction with the Package

The overall results revealed that many participants felt that the Primer (72%) and Survival Guide (70.4%) had equipped them with the knowledge and skills they needed to study online (see Tables 4 and 5). Students' overall impressions were not significantly affected by their status, that is, whether or not they were fully online or partially online students (Mann-Whitney U test, [Primer,  $z=.182$ ,  $p>0.05$ , Survival Guide,  $z=1.921$ ,  $p>0.05$ ]). In addition, no significant correlations between overall impressions and age, gender or type of internet connection used were found (Spearman's rho rank correlation,  $p>0.05$  for each item). Some qualitative free response comments about the Primer and Survival Guide are presented in Table 6.

**Table 4.** Evaluation of Users' Attitudes towards Aspects of the Primer

Questions relating to aspects of the Primer (N=267)	% (N) Strongly Agree or Agree	% (N) Neutral or no opinion	% (N) Strongly Disagree or Disagree	% (N) No response
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It was easy for me to locate the Primer.	79.1 (223)	13.5 (38)	1.5 (4)	6 (17)
The Primer was well structured and the material was presented in a logical and coherent order.	82.6 (233)	9.9 (28)	0.7 (2)	6.7 (19)
The Primer was useful as a means of introducing me to WebCT.	82.3 (232)	9.6 (27)	1.8 (5)	6.4 (18)
The Primer has equipped me with the knowledge and skills I will need to study online.	72 (203)	18.4 (52)	2.9 (8)	6.7 (19)
I now feel prepared to successfully complete the online module(s) I have registered for.	67 (189)	22.3 (63)	2.9 (8)	7.8 (22)
I am now confident about how to test my computer for compliance with the basic technical requirements.	62.8 (177)	17.4 (49)	12.4 (35)	7.4 (21)
I am now confident about how to use a Web browser, set up the Web browser on my own computer and download plug-ins.	63.8 (180)	17 (48)	17 (48)	11.7 (33)
I know how to get technical assistance if I have any problems accessing my online module(s).	73 (206)	8.9 (25)	9.9 (28)	8.2 (23)
The information provided about I.T. resources was useful.	74.5 (210)	14.9 (42)	2.5 (7)	8.2 (23)
The information provided about the delivery and structure of my module(s) was useful.	74.5 (210)	14.9 (42)	2.5 (7)	8.2 (23)
I now feel confident about how to communicate and collaborate with my instructor and fellow students.	77.3 (218)	11.7 (33)	2.8 (8)	8.2 (23)
The information provided about the assessment methods that may be used in my module(s) was useful.	76.3 (215)	14.2 (40)	1.8 (5)	7.8 (22)
The advice provided about how to organise my workload was useful.	60.6 (171)	24.8 (70)	6.8 (19)	7.8 (22)
The information provided about how to find material and resources to support my studies was useful.	66.7 (188)	18.4 (52)	6 (17)	8.9 (25)

It was useful to know that other support materials are available within the Campus One Induction Package to access throughout the duration of my online studies.	77.3 (218)	11.7 (33)	3.2 (9)	7.8 (22)
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**Table 5.** Evaluation of Users' Attitudes towards Aspects of the Survival Guide

Questions relating to aspects of the Survival Guide (n=76)	% (N) Strongly Agree or Agree	% (N) Neutral or no opinion	% (N) Strongly Disagree or Disagree	% (N) No response
It was easy for me to locate the guide.	75.3 (61)	13.6 (11)	4.9 (4)	6.2 (5)
It was clear that I was not expected to complete the entire guide prior to beginning my online module(s) but that I could refer to it as necessary throughout the duration of my online studies.	64.2 (52)	19.8 (16)	8.6 (7)	7.4 (6)
I made use of the guide by referring to it as necessary while undertaking my online studies.	54.3 (44)	27.2 (22)	9.8 (8)	8.6 (7)
The guide was a useful resource, which helped me learn how to use the WebCT tools I was required to use within my online module(s).	65.5 (53)	23.5 (19)	2.5 (2)	8.6 (7)
My learning was enhanced by using the WebCT communication tools to communicate with other students within my own module area.	76.3 (58)	17.1 (13)	0 (0)	6.6 (5)
I would have liked to use the communication tools to communicate with other students within the Induction Package itself.	57.9 (44)	35.5 (27)	0 (0)	6.6 (5)
I feel that the guide has equipped me with the knowledge and skills I need to study online.	70.4 (57)	19.8 (16)	2.5 (2)	7.4 (6)
The guide was well structured and the material was presented in a logical and coherent order.	77.8 (63)	11.1 (9)	1.2 (1)	9.9 (8)

The guide contained valuable learning activities/ exercises.	74.1 (60)	14.8 (12)	0 (0)	11.1 (9)
The online quizzes were useful and helped me to assess my learning and understanding in relation to use of the WebCT tools.	66.7 (54)	18.5 (15)	2.5 (2)	12.3 (10)
The feedback provided by the quiz tool was useful.	67.9 (55)	13.6 (11)	5 (4)	13.6 (11)
It was useful to know that other support materials are available within the Campus One Induction Package to access throughout the duration of my online studies.	74.1 (60)	13.6 (11)	3.7 (3)	8.6 (7)

**Table 6.** Some Free Response Comments about the Package

	Primer	Survival Guide
<b>Liked most:</b>	<p>Easy to access</p> <p>Very thorough</p> <p>Well organised information</p> <p>Ability to progress though at own pace</p>	<p>Easy to use</p> <p>Well organised</p> <p>Information about tools</p> <p>Clear explanations</p>
<b>Liked least:</b>	<p>Time needed to complete it</p> <p>Too much information</p> <p>No facility to print</p> <p>Access to library is not clear enough</p>	<p>Too lengthy</p> <p>Very time consuming</p> <p>Too much information in places</p> <p>Cannot contact other students</p>
<b>Additional comments:</b>	<p>I thought it was an excellent introduction to this kind of learning</p> <p>Useful tool for anyone who is unfamiliar with online course and computers in general!</p> <p>Time well spent Really useful, thanks</p>	<p>It was very useful and simple to use</p> <p>Overall a good introduction to WebCT and all its uses</p> <p>All in all it is a useful tool</p> <p>Not being very computer literate I found the guide very helpful and feel more confident about starting my studies. It will be invaluable as I will be able to refer back to it as well</p>



Of those who completed the Primer questionnaire, 82.3% believed that it was useful as a means of introducing them to WebCT. In addition, 74% felt that no more than two hours was required to complete it (see Table 7).

**Table 7.** Approximate Length of Time required to complete the Primer

	% (N)
<b>Less than 1 hour</b>	27.9 (72)
<b>1 - 2 hours</b>	46.1 (119)
<b>2 - 4 hours</b>	17.4 (45)
<b>4 - 6 hours</b>	2.7 (7)
<b>More than 6 hours</b>	5.8 (15)
<b>Total</b>	100.0

From the quantitative results, it was clear that on completion of the Primer, students felt confident about how to test their computers for compliance with basic technical requirements (62.8%). 63.8% also felt confident about how to set up and use a Web browser and download plug-ins on to their own computer and 73% knew how to get technical assistance if they had any problems accessing their online modules.

Of the respondents, 77.3% felt confident about how to communicate and collaborate with their instructor and fellow students. This result was not affected by status, that is, whether or not they were fully online or partially online students (Mann-Whitney U test,  $z=1.329$ ,  $p>0.05$ ). Many found the information provided about assessment methods (76.3%), about how to organise workloads (66.7%) and about how to find material and resources to support their studies (66.7%) very useful. 77.3% reported finding it useful to know that other support materials were available within the Induction Package to access throughout the duration of their online studies (see Table 4).

### Survival Guide

Some 65.5% of those who completed the Survival Guide believed it was a useful resource, which helped them learn how to use the WebCT tools they were required to utilise within their online module(s). 64.2% felt it was clear and recognised that they were not expected to complete the entire Survival Guide prior to beginning their online module(s) but that they could refer to it as necessary throughout the duration of their online studies. 54.3% reported making use of the Guide by referring to it as necessary while undertaking their online studies and 76.3% of respondents felt that their learning was enhanced by using the WebCT communication tools to communicate with other students within their own module area. This result was not affected by status, that is, whether or not they were fully online or partially online students (Mann-Whitney U test,  $z=1.172$ ,  $p>0.05$ ). Of the respondents, 57.9% would have liked the opportunity to use the WebCT communication tools to communicate with other students within the Induction Package itself. Respondents felt the Guide contained valuable learning activities and exercises (74.1%), that the online quizzes were useful and helped them to assess their learning and understanding in relation to use of the WebCT tools (66.7%) and that the feedback provided by the quiz tool was useful (67.9%). 74.1% felt it was useful to know that other support materials were freely available within the Induction Package to access throughout the duration of their online studies (see Table 5).

### Discussion

This study was prompted by authors such as Lorenzi *et al.* (2004) who have highlighted that students need to be prepared for online learning via specially designed programmes and Tait (2000) who has argued that educators need to determine whether student support can be delivered effectively using ICT. Tait (2000) has also identified a need to define the extent to which ICT can supplement or replace face-to-face student support and Fox and MacKeogh (2003) have stressed that educators may need to devise forms of online support, which minimise tutor involvement and encourage self-directed learning.

In response to such research, the main aim of this study was to evaluate the effectiveness of the UU Student Induction and Support Package and identify if it could be delivered appropriately online, providing students with the necessary knowledge and skills to learn successfully online.

The results from the study seem to suggest that induction and support can be delivered successfully online, as the majority of respondents felt that the Package did equip them with the knowledge and skills required to study online (see Tables 4 and 5). These results would seem to concur with the findings of a pilot study by Philips *et al.* (2004), which provided learners with customised induction information. Their pilot study found that online provision proved to be an effective means of offering educational advice, guidance and information.

From the feedback obtained in this study, it was also hoped to establish whether the same online induction and support programme could be delivered successfully to support all types of learners using WebCT, that is, those taking fully online courses and those who use WebCT to enhance their learning on face-to-face courses.

The results from this study do suggest that using the same Package is appropriate for those studying both fully online and face-to-face web-enhanced programmes, as the results revealed no significant differences between the levels of satisfaction of the two groups.

Authors such as Kennedy and Duffy (2004) and Ludwig-Hardman and Dunlap (2003) have stressed the importance of training students to use the technology associated with the learning environment to help alleviate the technical difficulties which can frustrate new online learners. To assess whether the Package equipped students with the necessary technical skills to use the online environment, respondents in this study were asked if they felt that the Primer and Survival Guide provided an effective introduction to WebCT and aided their understanding in relation to use of the WebCT tools. They were also asked if the Package equipped them with the ability to perform specific IT-related tasks and seek technical assistance, if required.

The results revealed that the Package seemed to improve student confidence in this area. Students found the guidance about how to obtain technical support useful and felt that the various exercises and quizzes designed to help them learn how to use the WebCT tools were helpful (see Tables 4 and 5). After

completing the Primer, the majority of students reported feeling confident about how to test their computer for compliance with the basic technical requirements, how to set up and use a Web browser and download plug-ins. Students also reported high levels of confidence relating to seeking technical assistance should they experience problems accessing their online module(s) (see Table 4).

Smith and Oliver (2005) have emphasized that, as more students engage with online learning, there is an increased need to ensure that all students benefit from information literacy education to develop their IT skills. They have pointed out (citing Rowley, 2000) that those embarking on a course of study within HE often have a limited awareness of the resources and tools available to them. They have suggested that many suffer because educators often wrongly assume that using online resources is simple and that today's student population is equipped with enough awareness about the technology they will need to use while studying because they grew up in the 'Nintendo generation'. Another purpose of this study therefore was to evaluate the effect of the Package on IT competency, by examining whether the perceived levels of IT literacy of students had improved as a result of completing the Primer and Survival Guide. From the quantitative results, it was clear that many students reported feeling IT literate before they even began working through the Induction and Support Package. It was interesting to note, however, that many felt that their level of literacy had also improved upon completion of it (see Tables 2 and 3). This may suggest that it is not only educators who wrongly assume that students are already equipped with the IT skills they will need to study online, but perhaps the students themselves also wrongly assume this. The authors of this work recommend that even if students feel IT literate before beginning a course of online study, it is still important to provide them with a comprehensive induction package and advise them to work through it prior to studying online.

It is agreed that learning how to communicate and collaborate online is especially important in online courses (Rovai, 2002, Thorpe, 2002). Kennedy and Duffy (2004) have emphasized that ICT, which supports online courses, is only effective if all those who use it, work in a collaborative relationship. They have suggested that ICT provides the infrastructural backbone for the delivery of online courses, but it is only the collaboration between those using the technology which converts such electronic tools and instructional materials into a coherent course.

As communication is such a vital aspect of online learning, this study investigated whether the guidance provided (in the Survival Guide) in relation to the communication tools available in the VLE, provided students with the confidence to communicate and collaborate with their instructor and fellow students, even though there was not practical opportunity to start using the communication tools within the Survival Guide itself. In particular, it was hoped to ascertain whether students would welcome the opportunity to use the WebCT communication tools to communicate with other students at the induction stage, rather than only within their module areas. The study found that many respondents did not especially feel the need to commence collaborative communication at the induction stage. Although some free response comments indicated that the lack of opportunity to contact other students was a negative aspect of the Survival Guide, some 42.1% of the respondents did not indicate a preference to use the WebCT communication tools within the Induction Package (see Table 5).

The qualitative comments provided in the free response questions in the study have helped the authors to identify which aspects of the Induction and Support Package could be improved for future users.

The majority of free response answers provided were positive and favourable. However, one point to note is that a small number of students felt the information about library access was not made clear enough, even though it was believed that guidance in relation to the library had been highly publicised within the Package. Scheer and Lockee (2003) have recommended that information about access to library resources is an important aspect of a student support model. As a result of this, it is recognised that effort should be made to clarify library access in future versions of the Induction Package.

Some students indicated that there was no facility to print the contents of the Package. A print facility does exist but it is recognised that guidance about how to print the contents needs to be detailed more clearly to students.

Tait (2000) has argued that there can be no universal blueprint for student support systems, which can be transferred directly from one institution to another. He has stated that variations in educational and organisational cultures mean that the building of student support systems must be tailored and contextualised to individual institutions. The authors of this paper agree with Tait and recognise that the Package should not be viewed as a blueprint but merely a framework for developing an induction programme. Although online induction and support could be delivered successfully at the institution in this study, the Package may not be of universal or direct transferable value.

## Limitation of the Study

It is difficult to determine exactly how many students actually used both the Primer and Survival Guide as a requirement for their course as it is UU policy to grant all registered users access to it whether they use WebCT or not.

## Future Developments

Currently, all students who access the Induction Package, access it within one WebCT module area. Difficulty in managing the students within the one area has meant that access to the use of communication tools has had to be restricted. However, it is believed greater value could be added to the Induction and Support Package by developing a template-driven model of the Package and dividing the student population into programme or module cohorts, which could be moderated by programme managers. Within each module or programme area, each student cohort would be able to use the communication tools to communicate and collaborate with a tutor and fellow students. It is then hoped that future research could be carried out into the success or otherwise of such a template-based induction model.

In addition, the authors believe that the Induction Package could have increased benefit or relevance to students, if the current generic content could be customised to suit the needs of these student cohorts and supplemented with programme specific information. This could further add to the research of Philips et al. (2004) whose pilot student induction website presented customised induction information depending on an individual's programme or course.

## Conclusions

Based on the research carried out in this study, it would appear that the same online induction and support

programme can be delivered effectively to all types of learners, that is, those taking both fully online and web-enhanced courses. It is also clear that even those who self-report high levels of IT literacy prior to commencing an induction and support programme, can still benefit from and acquire the additional skills required for online learning, by completing the programme.

## References

- [1] Berge, Z., 1998. Technology and Changing Roles in Education in *Wired Together: Computer-mediated Communication in K-12 Volume 1: Perspectives and Instructional Design*, Edited by Zane Berge and Mauri Collins Hampton Press, 1998[online]. Available from: <http://www.emoderators.com/books/k12bk1.html> [Accessed 2 May 2005].
- [2] Berge, Z. and Collins, M., 1995. Computer-Mediated Communication and the Online Classroom: Overview and Perspectives. *Computer-Mediated Communication Magazine* [online], Vol. 2, No. 2. Available from: <http://www.december.com/cmc/mag/1995/feb/berge.html> [Accessed 19 April 2005].
- [3] Chickering, A. and Ehrmann, S.C., 1996. Implementing the Seven Principles: Technology as Lever. *AAHE Bulletin* [online], October, 3-6. Available from: <http://www.tltgroup.org/programs/seven.html> [Accessed 19 April 2005].
- [4] Forsyth, R., 2003. Supporting e-learning: an overview of the needs of users. *The New Review of Academic Librarianship*, Vol. 9, No. 1, 131-140 (10).
- [5] Fox, S. and MacKeogh, K., 2003. Can eLearning Promote Higher-order Learning Without Tutor Overload? *Open Learning*, Vol. 18, No. 2, 121-134 (14).
- [6] Govindasamy, T., 2001. Successful implementation of e-Learning Pedagogical considerations. *The Internet and Higher Education*, Vol. 4, Issues 3-4, 287-299.
- [7] Hawkey, K., 2004. Assessing Online Discussions Working 'Along the Grain' of Current Technology and Educational Culture. *Education and Information Technologies*, 9:4, 377-386.
- [8] Herring, S. C., 2004. Slouching towards the ordinary: Current trends in computer-mediated communication. *New media and Society*, 6(1), 26-36.
- [9] Hislop, G.W. and Ellis, H.J.C., 2004. A study of faculty effort in online teaching. *Internet and Higher Education*, 7, 15-31.
- [10] Johannesen, T. and Eide, E., 2000. The role of the teacher in the age of technology: Will the role change with use of Information and communication technology in education? *The European Journal of Open and Distance Learning (EURODL)* [online]. Available from: <http://www.eurodl.org/materials/contrib/2000/eide2/eide2.html> [Accessed 19 April 2005].
- [11] Kennedy, D. and Duffy, T., 2004. Collaboration – a key principle in distance education. *Learning*, Vol. 19, No. 2, 203-211.
- [12] Lorenzi, F., MacKeogh K. and Fox, S., 2004. Preparing Students for Learning in an Online World: an Evaluation of the Student Passport to Elearning (SPEL) Model. *The European Journal of Open and Distance Learning (EURODL)* [online], Issue 1. Available from: [http://www.eurodl.org/materials/contrib/2004/Lorenzi\\_MacKeogh\\_Fox.htm](http://www.eurodl.org/materials/contrib/2004/Lorenzi_MacKeogh_Fox.htm) [Accessed 27 April 2005].
- [13] Ludwig-Hardman, S. and Dunlap, J., 2003. Learner Support Services for Online Students: Scaffolding for Success. *International Review of Research in Open and Distance Learning* [online]. Available from: <http://www.irodl.org/content/v4.1/dunlap.html> [Accessed 19 April 2005].
- [14] McLoughlin, C. and Marshall, L., 2000. Scaffolding: A model for learner support in an online teaching environment. *Teaching and Learning Forum 2000* [online]. Available from: <http://lsn.curtin.edu.au/tlf/tlf2000/mcloughlin2.html> [Accessed 19 April 2005].
- [15] Paulsen, M.F., 1995. *The Online Report on Pedagogical Techniques for Computer-Mediated Communication* [online]. Oslo, NKI. Available from: <http://www.nettskolen.com/forskning/19/cmcped.html> [Accessed 27 April 2005].
- [16] Philips, M., Hawkins, R., Lunsford, J. and Sinclair-Pearson, A., 2004. Online student induction: a case study of the use of mass customization techniques. *Open Learning*, Vol. 19, No. 2, 197-202.
- [17] Rajasingham, L., 2005. The Virtual University: From Turf to Surf-Same Journey Different Routes. *The European Journal of Open and Distance Learning (EURODL)* [online], Issue 1. Available from: <http://www.eurodl.org/materials/contrib/2005/Rajasingham.htm> [Accessed 27 April 2005].
- [18] Rovai, A., 2002. Building Sense of community at a Distance. *International Review of Research in Open and Distance Learning* [online]. Available from: <http://www.irodl.org/content/v3.1/rovai.html> [Accessed 19 April 2005].
- [19] Rekkedal, T., 2004. Support Services in E-Learning – an Evaluation Study of Students' Needs and Satisfaction. *International Journal of Educational Telecommunications* [online], 1 (4), 337-365. Available from: [http://www.eurodl.org/materials/contrib/2004/Rekkedal\\_Qvist-Eriksen.htm](http://www.eurodl.org/materials/contrib/2004/Rekkedal_Qvist-Eriksen.htm) [Accessed 27 April 2005].
- [20] Salmon, G., 2000. Computer Mediated Conferencing for Management Learning at the Open University. *Management Learning*, Vol. 31(4), 491-502.
- [21] Scheer, B. and Lockee, B., 2003. Addressing the Wellness Needs of Online Distance Learners. *Learning*, Vol. 18, No. 2, 177-196.
- [22] Sherry, L., 1996. Issues in Distance Learning. *International Journal of Educational Telecommunications* [online], 1 (4), 337-365. Available from: <http://carbon.cudenver.edu/~lsherry/pubs/issues.html> [Accessed 27 April 2005].
- [23] Smith, J. and Oliver, M., 2005. Exploring behaviour in the online environment: student perceptions of information literacy. *Alt-J, Research in Learning Technology*, Vol 13, No.1, March 2005, 49-65.
- [24] Tait, A., 2000. Planning Student Support for Open and Distance Learning. *Open Learning*, Vol. 15, No. 3, 287-299.

[25] Thorpe, M., 2002. Rethinking Learner Support: the challenge of collaborative online learning. *Open Learning*, Vol. 17, No. 2, 105-119.

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