



# What factors affect the likelihood of “success” in online study?

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## Introduction

Online learning is a common form of instruction in health. [1-2] It also provides great opportunity to support continuing professional development for health professionals. [3-4] However, some students have more difficulty with the online environment than others. [5]

Being able to identify characteristics of students who are “at risk” in the online environment could lead to the development of interventions and supports to improve the student experience of learning as well as their knowledge outcomes.

## Aims

To establish baseline scores for three measures (eHEALS scale, Internet Attitudes Scale, Rational Experiential Inventory) for students undertaking online postgraduate studies in palliative care.

To investigate whether there is a relationship between these scores, topic retention rates and academic performance.

Ethics for the study was received through the Social and Behavioural Research Ethics Committee, Flinders University, SBREC Project 4012.

Only selected findings from the study are reported in this poster.

## Method

The study utilised a pre-post mailed survey design. Two survey booklets (pre and post semester) were developed with the eHEALS scale, Internet Attitudes Scale and Rational Experiential Inventory as well as questions on sociodemographic characteristics, technology resources and experience of online study.

An initial recruitment letter, consent form, information sheet and the pre-semester survey booklet were posted to all students enrolled in Semester 1 units offered in Palliative and Supportive Services courses at Flinders University in 2008. Eighty six students returned written consent forms.

At the end of Semester 1, a letter and post-semester survey booklet was sent to consented participants. Of the 86 students who had agreed to participate in the study, sixty two (or 71.2%) returned the post-semester survey booklet.

Details on drop-out and academic performance for participating students were also collected. Participant numbers are detailed in Table 1.

Data was entered and analysed in SPSS 15.0

A qualitative content analysis of student responses to the open questions was conducted.

	No. of students	% of all enrolled
Enrolled in any unit	209	100
Written consent received	86	41.2
Pre-semester survey booklet	85	41.2
Academic grades	86	41.2
Drop out details	86	41.2
Post-semester survey	62	29.7

Table 1: Number of participants for study elements

## Results

Table 2 outlines the main characteristics of the study participants at the beginning of Semester 1.

Pre-semester Characteristics	N = 86
Age (M, SD)	45.9 (8.6)
Male	8 (9%)
Female	78 (91%)
No. studied online before	34 (39.5%)
No. currently working	82 (95.3%)
No. with computer at work	77 (93.9%)
No. with internet access at work	69 (80.2%)
No. with computer at home	85 (98.8%)
No. with internet access at home	84 (87.7%)

Table 2: Characteristics of study participants

Table 3 shows the mean scores for the eHEALS scale and the Internet Attitudes Scale, pre and post semester.

Paired sample t-tests were conducted to assess the effect of online study on students' eHEALS scores and Internet Attitudes Scale scores. There was a significant increase in the eHEALS score ( $t(60) = -3.286, p = .002$ ) and in the Internet Attitudes Scale ( $t(61) = -2.349, p = .022$ ) between the start and the end of the semester.

	Mean	SD	N	Sig.
Pair 1				0.002
Pre-semester eHEALS	31.8	5.2	61	
Post-semester eHEALS	33.3	4.9	61	
Pair 2				0.022
Pre-semester Internet Attitudes	116.4	15.9	62	
Post-semester Internet Attitudes	119.3	16.8	62	

Table 3: Mean Scores for eHEALS and Internet Attitudes

## Qualitative Analysis

The following themes from the content analysis emerged:

**Student Feelings:** Students experienced many reactions, thoughts and feelings about studying online (e.g. isolation of distance learning; nervousness about what to expect; frustration at dealing with technology.) They also expressed feelings of confidence in scholarship and computing over time.

**ICT necessities:** Students recognised the value and positive contribution of ICT to the flexibility of learning and to the development of their knowledge base. Others saw their age as a disadvantage having not used computers and technology much before.

**Staff and Peer Support:** Students saw responsive staff and students – people who understand online media and students' issues as important.

**Operational Frustrations:** Institutionally created barriers such as down loading requirements, printing costs, constant changes to University software and limited orientation to online systems/study were commonly reported.

## Discussion

Most of participants were females in their middle forties. Around one third had studied online previously and nearly all were working. Although the vast majority were working and used computers at work and had access to computers and internet at home, many still expressed insecurity about their ICT competence.

Change in eHEALS and Internet Attitudes Scale scores between the pre and post test suggests that experience, and possibly mastery, can enhance students self perceived confidence and competence in the online environment.

Many students appear to commence their online studies apprehensive about learning in the online environment. For educators ensuring that students are familiar with the technological environment is therefore critical. However, many students reported limited introduction and orientation to what can be complex and unfamiliar systems.

Importantly students themselves appeared to recognise that familiarity and competence was acquired over time. Indeed, students seem to be acquiring ICT knowledge and skills in addition to the curricular content.

## Conclusion

A wide range of factors appear to influence students' attitudes to, and experience of, online learning. Quality online education requires attention beyond curricula to incorporate information technology and online media issues.

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