DO STUDENTS NEED, USE, LIKE AND WANT AN ON-LINE HEALTH PSYCHOLOGY COURSE?

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Abstract

Health psychology is taught across a range of courses throughout Higher Education Institutions in the UK. Much of the material presented concerns the same underlying theoretical principles, but the application of the material differs depending upon the nature of the student cohort. On-line teaching material in health psychology has been developed ensuring that students from a range of courses and levels can access appropriate material for their course. This paper reports on both the first year of this provision and the questions that have arisen during this time. Evaluation of the first year indicated a number of pertinent issues. Firstly, students performed at a higher level in examinations, than with "traditional lectures" and their performance was correlated with usage of the material. However, there was some reluctance to develop an independent learning style. The improvement of the material to include interactivity, in an attempt to engage and motivate learners, thereby further developing independent learning is suggested.

Keywords

e-learning, interactivity, health psychology, independent learning.

Introduction

Health psychology is taught across a range of courses throughout Higher Education Institutions in the UK. Health psychology not only forms part of a "traditional" undergraduate psychology degree, but also forms an essential element in a number of health professions related courses. Much of the material presented concerns the same underlying principles but may differ in its application dependent upon the nature and level of its presentation. Consequently, a number of topics are taught which are common to many courses. In response to this duplication and inefficiency a project was established to develop on-line teaching material in health psychology ensuring that students from a range of courses and levels could access these. Another, perhaps more student-centred and important, driver for the development of the module was that it is acknowledged that traditional lectures are not a good way to learn (Biggs, 1999), even though students may like the format and may, erroneously, feel that they are learning because they are writing down everything that is either displayed or said. Many authors (e.g. Biggs, 1999; Hartley, 1998) have suggested designing the teaching and learning environment to promote greater student participation, and engagement thereby increasing deep learning in the students.

In response to these drivers a module was developed to include a range of health psychology web pages (with associated supporting material) co-ordinated through the Blackboard Virtual Learning Environment (VLE). These web pages were combined in distinct ways depending on the cohort of students for a range of courses dependent on level and area of study. For each of these modules, the following topics were developed: Introduction to health psychology; Definition of health; Measurement of health; Stratification of society and definition and measurement of social class; Social class and health; Gender and health; Stress and health; Stress management; and Pain and pain management. Each of the topics had a range of

specially designed web-pages along with supporting materials (handouts of key points; PowerPoint slides; exercises and games; and self-assessment quizzes). These are facilitated through the Blackboard VLE. A key feature in the design is the interactive nature of the material. Hence, rather than simply providing information, the student is encouraged to interact with the material. The specially designed web-pages can be viewed at the following address (this has been established for demonstration purposes only, and is not viewed by the students): http://www.uwic.ac.uk/shss/dom/newweb/DU/example.htm.

This paper presents results from the first year of presentation of this material to a third level, optional health psychology module for the BSc (Hons) Psychology programme. Specifically, this reports aims to address the following research questions:

- Was student performance better with the on-line course material compared to previous cohorts taught through the traditional lecture format?
- Was there an association between use of material and examination performance?
- How did the students evaluate the on-line module?

Results: student performance

Although different student groups have accessed the material, for ease of presentation the results will be limited to those on the BSc (Hons) Psychology course for two reasons: this is the largest group (n=52) and an end of module examination assessed the student performance. This examination is objectively marked and is subject to internal and external moderation. The basic demographic information for the cohort taught through the on-line medium compared to the previous two cohorts, taught through the traditional lecture format are presented in table 1.

Year	Male (%)	Female (%)	Mean age (sd)
2001/2002 (on-line)	19	81	22.5 (8.4)
2000/2001 (traditional)	17	83	23.1 (7.2)
1999/2000 (traditional)	15	85	22.8 (6.5)

Table 1: Student cohorts

The performance of the cohorts from the previous two years, along with the performance of the cohort experiencing the on-line module is outlined in table 2. As can be noted, there was a statistically significant difference between the three years (One way ANOVA, $F(2, 144)=6.163$, $p=0.003$). Post hoc Scheffé tests indicating the difference lay between the cohort taught through the on-line medium scoring at a higher level than the other two cohorts. In comparison there was no significant difference between the three cohorts on their overall whole course mark (see table 2).

Year	Mean percentage (SD) for module taught through on-line methods.	Mean percentage mark (SD) for whole course
2001/2002 (on-line)	58 (10.0)	57.26 (5.69)
2000/2001 (traditional)	51 (16.4)	57.15 (4.93)
1999/2000 (traditional)	49 (16.1)	56.48 (4.92)

Table 2: Student performance over three years

Blackboard allows for the recording and tracking of student use of the presented material. Using these data, a correlation was computed between the amount of times a student used the on-line learning material and their final exam mark. The results of this analysis are presented in figure 1. As can be noted, there was a significant correlation ($r_s=0.70$, $p<0.001$) between use of the material and final examination mark such that those who spent more time with the material achieved the higher final overall mark.

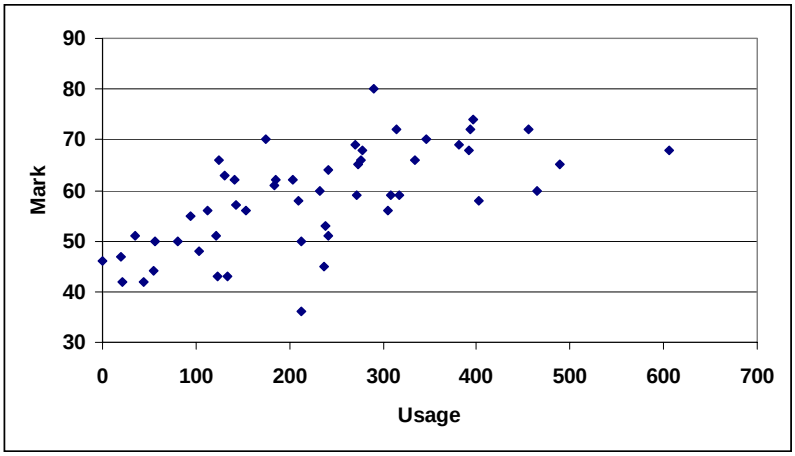

Figure 1: Correlation between usage (number of hits) and exam performance

Results: Student evaluation

A comprehensive evaluation was undertaken at the module end and both qualitative and quantitative data collected (taken from a questionnaire derived on the basis of that presented by Jolliffe, Ritter, and Stevens, 2001). A total of 48 feedback forms (from 52, 92% response rate) were received (distributed and collected in the final lecture) and each responded to a series of questions on: technical features, Blackboard features, academic support, module design and content and comparison of Blackboard to traditional teaching. In brief, the responses suggested that there were few problems in terms of technical features (n=36, 75% responding positively), Blackboard features (n=40, 88%), academic support (n=35, 74%) or module design and content (n=45, 94%). The two final sections of the evaluation questionnaire are presented in more detail. Table 3 provides some general comments from the student cohort, and table 4 provides some information on the views of students when comparing Blackboard to face-to-face teaching. Both tables present percentage responses to each statement for ease of comparison.

	Strongly Disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly Agree**
Blackboard is more convenient than attending regular lectures and tutorials	11	14	9	46	20
I felt more motivated to learn compared to regular lectures	20	34	14	29	3
I learnt more from the Blackboard compared to regular lectures	11	40	20	29	0
The Blackboard is an effective *supplement* to the traditional lectures and tutorials	0	3	0	63	34
The Blackboard is an effective *replacement* for missed lectures and tutorials	36	17	17	37	3
I would choose to take another Blackboard module	11	23	14	37	11
Given the choice between studying by the traditional lecture method and Blackboard, I prefer Blackboard	29	31	20	20	0
Blackboard is an effective *replacement* for all lectures	46	40	6	6	0
Blackboard has made me more of an independent learner	6	20	20	49	6
I enjoyed Blackboard more than traditional lectures	17	34	29	14	6

Table 3: Comparison of the Blackboard to face-to-face teaching (%)

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Learning by computer is boring	14	57	17	3	9
I enjoy learning at my own rate	0	9	11	66	14
Blackboard is an interesting way to learn	6	6	14	69	6
Electronic course notes was useful	0	6	0	77	17
The content was boring	3	34	57	3	3

Table 4: Overall Comments and Suggestions (%)

Conclusion

The results of this investigation reveal some interesting findings. On the one hand, students performed better with on-line learning material compared to others having a traditional lecture (although it is, of course, possible that this was a cohort effect although analysis did not suggest any significant differences between the three cohorts examined in this study). Furthermore, the more use made of the material the better the performance (a caveat should be in the measurement of "usage" since this merely relied on amount of times the material was accessed rather than length or, more importantly, engagement with). Students also reported that they had a positive experience in terms of the technical capabilities, the features inherent in Blackboard, the academic support provided by the tutor and the module design and content. Finally, students felt that Blackboard was more convenient than attending regular lectures, they communicated more with their tutor, enjoyed learning at their own rate, found e-learning an interesting way to learn and using a VLE made them more independent in their learning. Despite this, few reported that they would chose this method over traditional lectures and most felt they learned more in a traditional lecture setting. There, appears to be a paradox: students perform better, value e-learning, yet still retain an urge for traditional lectures. Why should there be this paradox? Some explanations can be uncovered from the qualitative comments also recorded. A recurring theme was that the students felt that Blackboard decreased motivation for the Health Psychology module, *'fairly easy to forget to study for this module', 'when under lots of deadlines its easy to put Blackboard to one side and get a little behind', 'lack of traditional lectures decreases motivation to learn'* and *'needs a high degree of self-motivation, extremely passive tool for learning'.* From these reports it would appear that students found it difficult to motivate themselves to learn and to take on the role of independent learners. Obviously, therefore the challenge is to provide students with an environment that enhances motivation, engages them but which also directs and rewards. As Race (1996) points out, the medium is part of the message. So, the answers to the questions posed in the title therefore, appear to be, yes they do need it, yes they do use it, and yes they like it but no they don't want it!

References

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