Diagnostic Self-Assessment of Information Literacy Skills for 1st Year Pre-Registration Nursing and Midwifery Students

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Introduction

Starting in January 2006, with the new intake of pre-reg nursing and midwifery students, there was a change in the curriculum. For the first time students had to produce an essay by the end of the first 12 weeks, this meant that the sessions were now being offered at an appropriate time.

Previously I had provided one-off electronic resources training sessions at the beginning of September and the students did not have to produce an essay until the following April. By that time most of the students had completely forgotten how to use the electronic resources.

With the new curriculum change I also saw the students on two occasions, once to give a demonstration to a large group, and then in smaller groups for a hands-on session. During the second sessions we ironed out problems and any concerns that the students had concerning information skills.

On January 27th I met 146 students from the new intake of the Nursing Diploma course, for the first time. I gave them a printed copy of the diagnostic information literacy test before I gave them a demonstration of using the electronic resources. For four weeks after that large group session the 146 students were divided into ten smaller groups over 4 Thursday afternoons, and I saw them for approximately 3 quarters of an hour each.

During the sessions with smaller groups I observed a greater focus from the students compared with the previous one-off sessions that I have taken. At the end of the sessions I gave them a final test to see how they had progressed.

The main fact that the students had to produce an essay by the end of the first 12 weeks was a contributing factor that helped to concentrate the mind; they wanted and needed to use the electronic resources.

The Pre-electronic Resources Training Session test

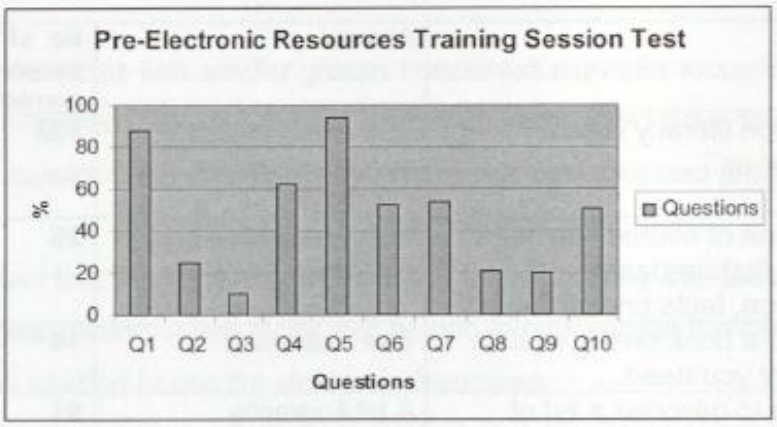
At the beginning of the large group electronic resources demonstration for the Diploma in Nursing and Midwifery 1st year group, I collected 146 pre-electronic resources training tests. There were 13 males and 133 females. 145 said that they would like to take part in the research, although they did have time before the next session to change their minds.

The age range was between 18 and 54; 33 being the average age.

18-25	26-35	36-45	46-55
66	43	32	4

- 43 people (approx 30%) had taken ICT training e.g. ECDL in the past.
- Of the 43 people, 65% gained 5 out of 10 and above on the pre-test and 88% gained 5 out of 10 and above on the post-test.
- 139 people (approx 96%) had used a search engine such as Google or Yahoo.

	Question	Answer	No. of people correct	% of people correct
1	Information literacy is best described as....	The ability to locate, evaluate and use info effectively	128	88
2	Which type of source should be checked first for basic information, facts and statistics?	Encyclopaedias and almanacs	36	25
3	To locate a book on the shelf in the library you need...	The classmark	14	10
4	The term to describe a list of books, articles, web pages and other materials that are related to one another and organised together is...	A bibliography	91	62
5	When searching a periodical index you may wish to see the abstract of an article. An abstract is defined as...	A short, objective summary of an article	137	94
6	When searching a database a truncation symbol can be placed at the end of a word stem in order to...	Retrieve records with any form of the word i.e. alternative endings	76	52
7	The broadest search available in an electronic database is...	A keyword search	79	54
8	When performing a search on a database such as CINAHL which search will find fewer items	Heart and mind	30	21
9	AND, OR and NOT play specific roles in bibliographic databases. They combine terms together (AND/OR) or exclude terms (NOT), but what are they called?	Boolean operators	29	20
10	You are interested in asthma in children. How would you key in these words to search effectively?	Asthma and children	74	51



The marks gained out of ten were:

Pre-electronic resources training test		Post-electronic resources training test	
Score	Number of people	Score	Number of people
1	1	1	0
2	6	2	1
3	19	3	0
4	42	4	3
5	38	5	8
6	22	6	28
7	12	7	34
8	3	8	24
9	1	9	22
10	1	10	12

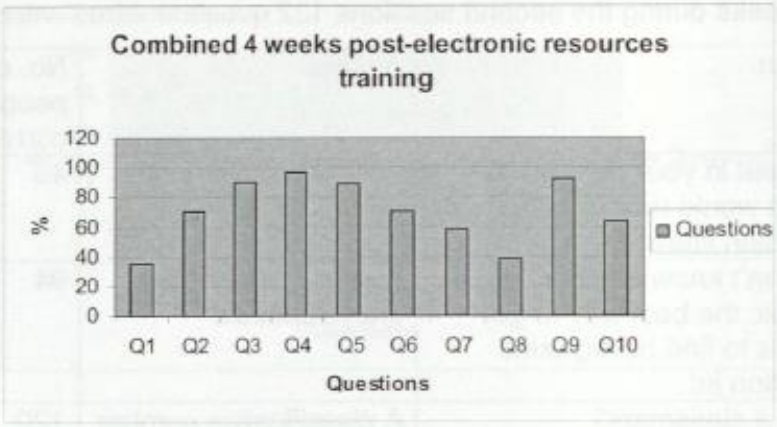
For the Pre-test of the 145 questionnaires returned 78% gained 5 marks out of ten, or above. For the Post-test of the 132 questionnaires returned 97% gained 5 marks out of ten, or above. Out of the 132 students, 8 grades remained the same in the post-test, 5 grades dropped by 1 and 1 grade dropped by 4, that person having gained 10 out of 10 in the pre-test.

The Post-electronic Resources Session Test

In the 4 weeks during the second sessions 132 questionnaires were returned.

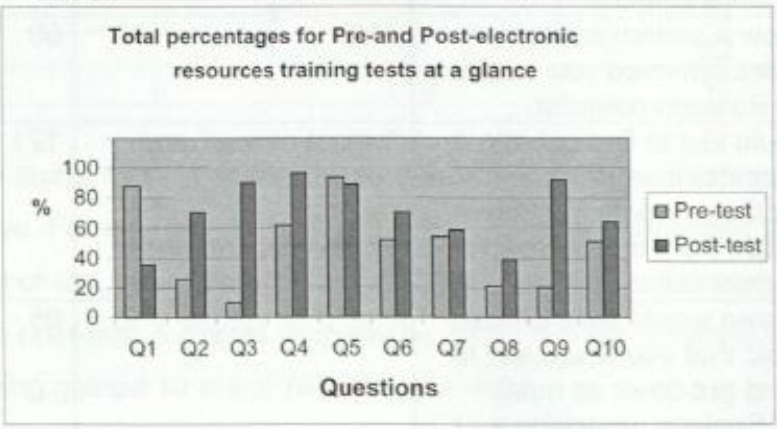
	Question	Answer	No. of people correct	% of people correct
1	Please put in your own words how you would describe the term 'information literacy'		46	35
2	If you don't know anything about your topic the best way to get started is to find background information in:	A print or electronic encyclopaedia	94	71
3	What is a classmark?	A classification number given to a book or journal so that you can trace it on the shelf	120	90
4	A bibliography is a list of...	Information sources	128	97
5	A summary (usually a paragraph) of the contents of an article, a book, document, webpage or other item is...	An abstract	117	89
6	Truncation is used to widen a search. How would you truncate 'medication'?	Medic*	93	70
7	Using keywords to search for information on a topic, which Boolean operator would you use to broaden a search?	OR	77	58
8	To narrow a search so fewer results are retrieved you would use the Boolean operator...	AND	50	38
9	You would like to find out about breast cancer in men. How would you use these words to retrieve information from a database to get the most out of your search?	"breast cancer" and men Or "breast cancer" and m?n not wom?n	121	92
10	In your own words write an idea for a topic that you would like to cover and put down as many ways of Boolean searching that you can think of		85	64

Breakdown of Post-test Questionnaire



Total percentages for Pre and Post-electronic training tests at a glance

Total %	Pre-test	Post-test
Q1	88	35
Q2	25	71
Q3	10	90
Q4	62	97
Q5	94	89
Q6	52	70
Q7	54	58
Q8	21	38
Q9	20	92
Q10	51	64



Analysis and Discussion

Looking at the facts alone the results show that overall there is an improvement on the second test with the majority of students. I broke the 4 weeks up as well to see if there was any evidence to suggest that the longer time went on students marks improved because they may have used the resources in between sessions. The results don't appear to suggest this.

Question 1 - The reason only 35% answered correctly on the post-test, is that the pre-test was a multi-choice question and the post-test was free text and students wrote a sentence or two about their thoughts on information literacy. Whilst all attempted this, many spoke of literacy in general and some only put one aspect of information literacy, such as searching electronic databases, which in effect, was what my sessions were all about, so students thought that this was information literacy.

Question 2 - The web was the most popular answer and considering 96% use Google this is probably not a surprise. (Pre-test).

Question 3 - The concept of a classmark has always been difficult The students felt the question was misleading because they argued that you need all the choices to find a book on the shelf. (Pre-test).

Question 7 - The results show me that Boolean is still a difficult concept to understand. When you ask 'Which Boolean operator would you use to broaden your search?' Many people said AND, because + and+ and+ in mathematics = more. (Post-test).

Question 8 - The results again showed me the difficulty students have with Boolean. Many crossed out NOR and put NOT, thinking that I had misspelled it. Again, NOT, less than, minus in mathematics = fewer. (Post-test).

Question 9 - Most people ticked choice three or four. The correct answer was choice 4 "breast cancer" and men, but I felt that I had misled the students because in the workbook I showed them how to be more specific and the

workbook suggested "breast cancer" and m?n not wom?n. I was also pointing out the use of wildcards here. I have therefore given a correct mark to those who have ticked either of those choices.

Summary and Conclusion

This is the first time that I have carried out assessment of this sort and there is a lot to learn from it. I believe that some form of assessment of information literacy/electronic resources training should be carried out to see how the students have progressed; to inform the planning of my sessions and to inform students how they are getting on. I do feel however that there does need to be more collaboration between me, Library Management and the academics who ask me to provide these sessions. The difference between one-off sessions and seeing the students twice is amazing

- I got to know the students better and what they can do.
- They get to know me.

The fact that they needed to get an essay done in 12 weeks made all the difference. There was a vast improvement in people focussing and wanting to find information for their essays. They asked pertinent questions which did not concern them before.

The tests showed me that overall the students progressed in their understanding of the electronic resources sessions. This may be evidence that the students' perceptions have changed because of the electronic resources sessions but just as important the results show me where I need to make changes to my sessions in order to improve upon them.

If I did this type of assessment in the future, I would put the questionnaires on BlackBoard so that the students could get immediate feedback. It would also be useful to develop a bank of questions based on the 7 levels of information literacy so that librarians and tutors can pick from them to create a questionnaire for assessment and can be used and adopted for different disciplines.

Intute: Health and Life Sciences - a new beginning for NMAP

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Intute was launched on 13th July 2006. The partners of the Resource Discovery Network (RDN) have developed Intute as the successor to the collection of hubs that included BIOME and its constituent gateways such as NMAP and OMNI. They have done this to take forward the strategic development of national resource discovery in higher and further education. Integration of the former hubs makes it easier for institutions to offer the service through their portals, virtual learning environments, websites, and library and information service catalogues. The new, simpler interface will focus on what users need, assisting academics, researchers and students in making the most intelligent use of the Internet.

BIOME has integrated with the other seven former RDN hubs (Altis, Artifact, SOSIG, etc.) into four subject groups. These groups represent the social sciences; arts and humanities; health and life sciences; and science, engineering and technology.