A Critical Process: Developing skills in conducting a critical review of the literature.

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Background and rationale

White & Taylor (2002) suggest that for many years, the United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC), has sought to promote the development of research knowledge and skills in Registered nurses. One aspect of this is the critical review of published literature. This can be viewed as an activity which spans across both undergraduate and post graduate work (Morris & Maynard 2000). It has also been suggested that such skills are necessary attributes of independent learning (Patterson *et al.*, 2002). However, there is a view that constructing a critical review of published literature is challenging and that it can present difficulties for students (Carnwell & Daly 2001). This view supports expert opinion within the School of Health, where academics have identified that student nurses appear to experience difficulties in some or all of the stages of the process of critically reviewing published literature.

The innovation

The aim of the project was to develop an online study package for student nurses and midwives, aimed at developing skills in conducting a critical review of literature. The outcome of the project is the development of an interactive topic within the university virtual learning environment, Wolverhampton On-line Learning Framework (WOLF) which focuses on the stages of conducting a critical review of published articles.

The topic starts with an introduction/revisit to the importance of evidence based practice. It was decided to enhance the issue by linking a nursing activity (bathing a patient/client) into an everyday activity that the students could relate to (buying a mobile phone).

The students are asked to consider how the evidence is retrieved and they are given a selection of search engines which they can use to retrieve evidence.
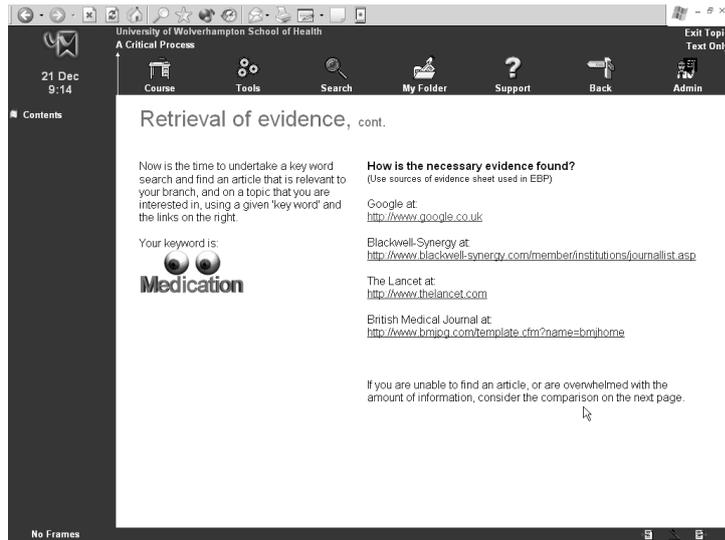
For their first task the students are asked to do a keyword search using a given key word.

Help and advice is given at this stage, again relating the issue into an everyday activity; in this case buying a tin of baked beans.
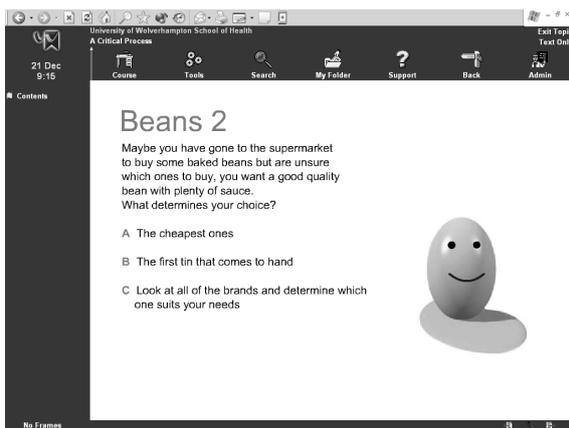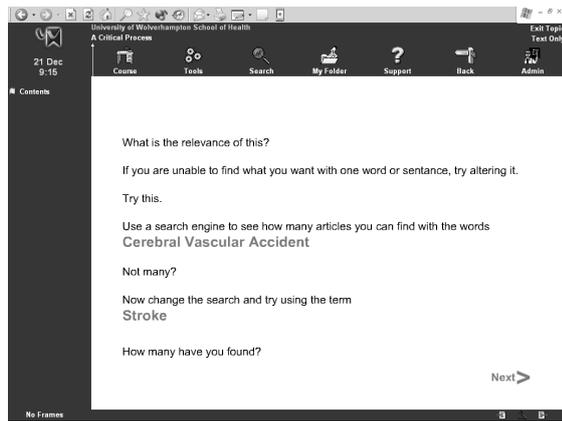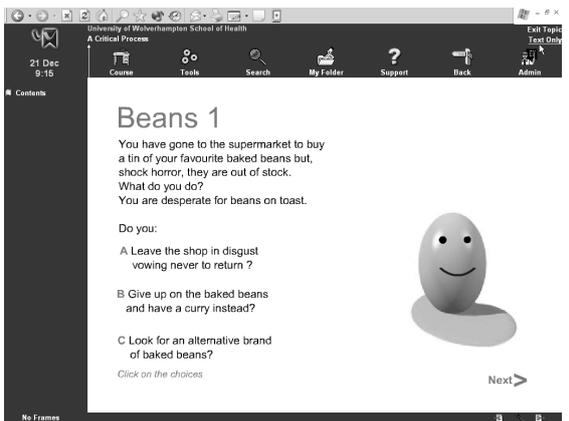
The second task the students have to undertake is the critiquing of an article. They are given guidelines to follow and an article to critique. In order not to contravene any copyright regulations, the article was written in newspaper format by a member of the project team.

For the third task, using guidelines on what constitutes a research article, the students are asked to retrieve five research articles on a topic of their choice, and then reflect on the process. They can then use this for an assignment in term eight of the course.
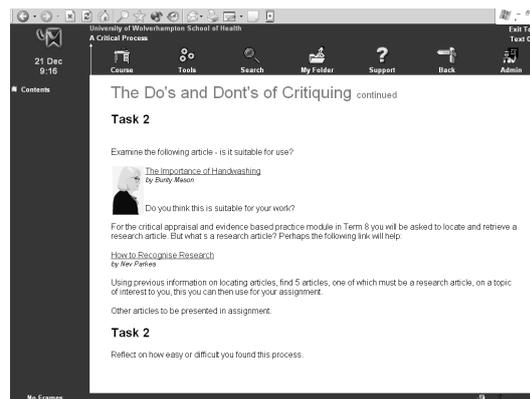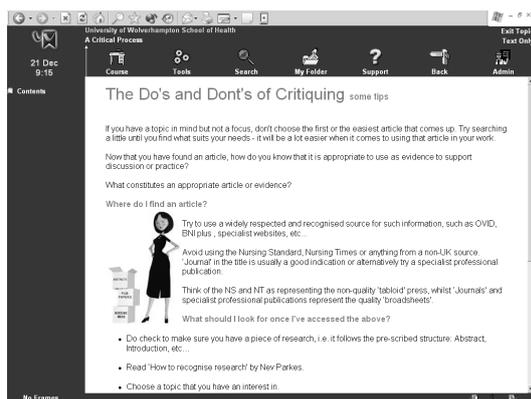
The outcomes

The package is now live on WOLF and is currently linked to a module entitled "Critical appraisal and evidence based practice" which is undertaken by senior students, in term eight of the RN Dip HE course. The cohort who have recently undertaken the module have been introduced to the package and were encouraged to use it to help them with their assignment.

The benefits

The flexible pathway will mean that students only have to access the activities they need. For many pre-registration students, with no previous academic experience, it is likely that they will need to access all of the activities. The activities have been structured in a way which is sequential and coherent. It is proposed that this will enable all users to more readily identify the relevance of each stage to the overall process of critical review (for example the importance of appropriate key words in locating and retrieving material). The link with subject specific material will also enable the user to understand the importance of critical review, as an element of evidence based health care.

The use of WOLF as the platform of delivery will allow flexibility of access by students. It is also likely that any support which is sought, will be more evenly spread over the school year, rather than only during the modules which require the utilization/assessment of these skills.

Evaluation

Evaluation was carried out through verbal and written feedback from students, academics and members of the project team. A questionnaire was sent to the students which they were asked to complete.

Q: Prior to undertaking the WOLF topic, were you having difficulties with any of the elements of the 'Critical Appraisal and Evidence- based Practice Module?   Yes/no

Many of the students commented that they were being introduced to something completely new, and that they were having difficulty understanding the relevance of the subject. They particularly struggled with comprehending what a research article actually is, and then where to find one.

Q: Has undertaking the WOLF topic helped you with any of these elements?   Yes/no

The section of the topic which students seemed to find the most useful was the page with the search engines, although some did state that going through the "beans" exercise was really beneficial in helping them to alter searches to find a relevant research article.

Q: Do you think that undertaking the WOLF topic at the beginning of the module would have been beneficial to you?   Yes/no

The response to this was overwhelmingly positive. The group to which the WOLF topic was introduced were a week into their module. The students commented that the WOLF topic would have been beneficial launched to them some weeks prior to the launch of the module. This would have enabled them to start with an understanding of the layout of a research article, and where to retrieve one from. Some of the students stated that they might have benefited from the WOLF topic being available to them from the start of the RN Dip HE course.

Q: Were the graphics clear enough? Yes / no

All agreed that the graphics were clear and engaging, and made the topic more enjoyable.

Q: Which parts of the WOLF topic did you find most engaging?

Most of the students enjoyed the interactive sections of the project, but found other sections that required reading a bit laborious, although most commented on the relevance of these sections. One further comment made was regarding the layout of the topic and that it was a little confusing at times. Work is now underway to rectify these issues.

Comments from academic colleagues have been positive, particularly regarding the interactive sections of the topic, and the relevance of this to the course. Positive comments were also made on the simplicity of the topic, and that the students should be able to follow it easily, resulting in a deeper understanding of what is required, by the time they have completed it.

Future developments

With the development of a new curriculum it is intended that this will become an integral part of the new longer modules that are planned for the new course in nursing, introduced in the first year so that by the end of the module the students will become proficient at critiquing literature. The package was designed so that it can be adapted for use by other Schools.