INTRODUCTION

Formative assessment was introduced in Rehabilitation Therapy students’ information literacy programs in Fall Term 2006 in the course OT/PT 402: Evidence-Based Practice. It was subsequently employed in the Winter Term 2008 and again in the Spring Term 2008. Formative assessment during student/librarian face-to-face consultations was one of a variety of teaching techniques used in the program. Other techniques included: a required reading; an interactive hands-on searching session; and a summative assessment of the final revised search strategy assignment (these techniques varied somewhat over the 3 classes). With the 2008 entrance class, this course content moved to OT/PT 898: Critical Enquiry, largely in Module 3: Reviewing the Literature. One of the Critical Enquiry’s learning objectives is “recognize and reflect on the complexity of gathering evidence to inform decision-making.”

METHODS

Students completed assignment Part A—formulating a research question and selecting citation databases. They then scheduled a 1:1 consultation with a librarian. In assignment Part B, students addressed librarians’ recommendations on their specific search strategies.

LITERATURE SEARCH STRATEGY RUBRIC

Not Accepted

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<th>Conditional Acceptance</th>
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<td>The search includes inappropriate resources (matched to critical enquiry question) but has overlooked some key relevant articles.</td>
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<td>The search requires either narrowing to yield more focused results, or broadening to retrieve more information.</td>
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Unconditional Acceptance

| The needed information relevant to the specific critical enquiry question has been accessed effectively and efficiently. |
| Comprehensive search of several citation databases. |
| Appropriate use of subject headings and/or text words, subheadings, keyword truncation; combining sets using AND and OR, and limits. Appropriate years searched. |
| Evidence of planning. |

1. PICO stands for:

   a) Patient, Improvement, Comparison, Outcome
   b) Patient/Population/Problem, Intervention, Comparison, Outcome
   c) Patient, Improvement, Comparison, Overview
   d) Patient/Population/Problem, Intervention, Contrast, Outcome

2. Questions are driven by or based on:

   a) the clinical situation/practical experience
   b) professional trends
   c) existing published research
   d) all of the above

3. Scholarly publications include:

   a) books
   b) peer-reviewed journals
   c) non-peer-reviewed journals and professional magazines
   d) all of the above

4. The Google Scholar search engine is currently useful for:

   a) comprehensive journal literature searches
   b) discovery and browsing
   c) quickly locating highly-cited articles
   d) all of the above

5. Too many articles? To refine your literature search results:

   a) remove your question
   b) use more specific search terms
   c) combine terms using to represent other aspects of the question
   d) all of the above

6. Too few articles? To broaden your literature search:

   a) broaden your question
   b) try different combinations of search terms
   c) add synonyms and related search terms and combine them using OR
   d) all of the above

7. Select the highest level of evidence:

   a) books/reviews
   b) systematic reviews
   c) review articles
   d) peer-reviewed articles

ASSIGNMENT OUTCOMES FOR GROUP B

(Group C is still in progress.)

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| Average mark for Part A: 8.93/10 or 89%
| Average mark for Part B: 4.93/5 or 98.6%
| Average overall assignment mark: 13.87/15 or 92.4%

Discussion: Students were highly motivated to do well on Part A for several reasons:

✓ The topic was of personal interest to them.
✓ Students were cognizant that they would be reviewing their searches with a librarian.
✓ Part A was weighted at 10% of the course mark.

Typical recommendations from librarians were, in descending order of frequency:

1. Use subject headings rather than key words as search terms.
2. Expand subject headings when appropriate.
3. Recommendations relating to research question formulation.
4. Translate keywords to retrieve variant word endings.

LIBRARIAN WORKLOAD WITH GROUP B

(From data so far, Group C is proving to be much more time-intensive.)

| Average librarian time spent reviewing/evaluating Part A: 35.6 minutes |
| Total librarian time spent reviewing/evaluating Part A: 319 hours or 53.25 hrs |
| Average duration of consultations: 17.67 minutes |
| Total librarian time spent on consultations: 563 minutes or 9.4 hours |
| Average librarian time spent reviewing/evaluating Part B: 5 minutes |
| Total librarian time spent reviewing/evaluating Part B: 563 minutes or 9.4 hours |

There were 50 students in Group B, so this equated to a total of almost one hour of librarian time per student.

CONCLUSIONS AND FUTURE WORK

Preliminary evaluation of the program indicates that student/librarian consultations and formative assessment resulted in systematic, comprehensive and well-documented search strategies. Surprisingly, this method of student assessment was no more overall librarian labour-intensive than traditional critical enquiry literature search strategy evaluation. The implication is that individual consultations could be employed for critical enquiry projects across the health sciences curriculum. As another result, once students become practitioners, they are more likely to view librarians as partners in evidence-based health care and to seek their expertise.

Future work includes clearly articulating information literacy program goals and developing or adapting an existing validated information literacy skill assessment tool. More direct comparisons of study groups will become possible now that the Critical Enquiry portfolio program is completing its first year. With Group C, the current group of students, consultations are optional. We will be able to compare assignment outcomes of students receiving the "basic" instruction with those receiving the "basic plus adjunct instruction". It would also be interesting to survey recent graduates to measure the effect of information literacy education on their professional practice.