

Providing information literacy skills to student teachers: a comparison between the course "Academic reading and writing skills" and the "Information literacy online tutorial" / Cohen, Ofra

The three most prominent characteristics of the society today are post-modernism, frequent change and the dominance of information (Salomon, 2000). The information age, as we call the present era, is characterized by an information explosion, its rapid obsolescence, and information accessibility.

As a result of the importance of information in our current society information literacy has turned into a real “survival skill” for citizens of the technological society in general, and educationalists and developmentalists in particular, who are supposed to make intelligent use of technologies in their work and also to inculcate their students with this information literacy (Eshet, 2003).

Acknowledging the importance of imparting information literacy skills to pupils and students alike, many educational institutions have invested great effort over the years in developing study programs involving acquisition of these skills.

As early as the 1990's the colleges and universities developed special study programs for students during their first year of studies. Instruction programs connected to libraries were developed specially for 1st year students (Orme, 2004).

Higher education institutions in Israel, colleges and universities, also have information literacy instruction projects, as for example the University of Haifa information literacy online tutorial (2009), and the Achva College library literacy online tutorial (Achva College, 2009).

At the instigation of the college library (Maapil, 1997), The David Yellin Academic College of Education began operating their information skills teaching project in 1995, and continued for about ten years. The course evolved during the project and was initially called “*Tipa BaYam*”, whilst in its final years it was called “*Academic Reading and Writing Skills*”. It was attended by 1st year students of education.

The “Academic Reading and Writing Skills” course was cancelled beginning from the 2008 academic year and in its place an information literacy online tutorial was developed. The online tutorial is compulsory for all 1st year students, and completion of all its assignments is the requirement for a passing grade.

This research is a comparison between the contribution of the course “Academic

Reading and Writing Skills” taken by 1st year teaching students in 2007 and the contribution of the online tutorial for teaching information literacy to the students who used it in the 2008 academic year.

The hypothesis of the research was that in general the achievements of the students who took part in the “Academic Reading and Writing Skills” course will be shown to be higher than those of the students who used the information literacy online tutorial. An additional hypothesis, which was examined only in the qualitative research, was that the achievement gap between those students who took part in the course and those who used the program would be wider in the case of students whose mother tongue was Arabic.

299 first year student teachers from The David Yellin College of Education participated in this research. These students were selected for our sample because theirs was the only track in which the annual “Academic Reading and Writing Skills” course was compulsory, whereas beginning with the 2008 academic year they were obliged to use the information literacy online tutorial and pass an exam in the use of the library catalogue and various data bases.

The students were divided into two groups:

1. 188 students who participated in the “Academic Reading and Writing Skills” course in 2007.
2. 111 students who studied with the information literacy online tutorial in 2008.

The participating students are Jews and Arabs aged 20-30 yrs.

In addition, 14 library and information science students also took part (an external group) serving as a control group for the purpose of comparing initial data relating to information literacy skills.

The research is based on a combination of quantitative and qualitative research systems, as detailed below.

The following questionnaires were distributed: a pre-course and online tutorial questionnaire, on the first class of the first semester. A post-course questionnaire were handed on the last class of the first semester and post-use-of-online tutorials questionnaire were handed out to the students during the second semester. These questionnaires provided the quantitative aspect of the research.

For the qualitative research joint observation sessions were conducted by the librarians at the reference desk. The librarians checked: whether the students carried

out their information literacy assignments independently; how frequently they were approached by the students for assistance with these assignments; and to what extent the students read the explanations in the program before attempting to carry out the assignments. The program explanations are in Hebrew and consequently the question was posed as to what extent students whose mother tongue was Arabic needed more assistance in carrying out the assignments. The data gleaned from the observation was collected by means of interviews.

Furthermore, interviews were conducted with: students, tutors and reference librarians who taught the “Academic Reading and Writing Skills” course.

The observation sessions and interviews provided the qualitative aspect of the research.

Analysis of the quantitative data shows that the assumption that the results of those students who took part in the “Academic Reading and Writing Skills” course would be higher than those of the students who acquired their information literacy skills through the online tutorial, was partially confirmed.

The course participants displayed higher results with respect to the following variables: computer literacy, library skills: acquiring information, searching other libraries, searching for articles in data bases, and subject / keyword library catalogue searches.

The program users produced higher results with respect to library catalogue search skills, author and title library catalogue searches, finding material in English, and internet searches.

With regard to information skills acquisition by Arabic-speaking students the pre-research assumption was that the gap between the information literacy results of the students who participated in the course and those who used the online tutorial would be greater where students with Arabic as their mother tongue were concerned. The data from the qualitative research clearly supports this assumption.

It may be concluded from the interviews with the tutors and the reference librarians that the Arabic-speaking students were seen to experience difficulty in information literacy acquisition already during the “Academic Reading and Writing Skills” course. These difficulties came to light during the course’s exercise sessions. The move over to the use of the library literacy online tutorial only served to exacerbate these students’ difficulties and prevented their learning even a basic level of search

literacy.

Further qualitative research findings enable comparison between two methods of teaching – frontal teaching together with exercise in the computer room vis-à-vis self study through an online tutorial.

Comparison between the course and the online tutorial reveals that whereas the course is based on learning by instruction, the use of the program is based on self study. The students are required to read background material and then carry out assignments independently. However, the facts on the ground prove that very few students are able to manage without the assistance of the reference librarians. The students refer to the librarians for help whilst using the online tutorial not only for technical reasons but also out of a lack of the basic knowledge required for carrying out their assignments. Thus it appears that the main purpose for which the program was produced, i.e. independent study, is only achieved by a small section of the students.

The course includes a physical introductory tour of the library, whilst the online tutorial contains a virtual tour intended to fulfill a similar function. Surprisingly, the interviews show that the physical tour of the library, with its explanations and activities involving shelf numbers and the position of the books in the library, has an advantage over the virtual tour. The physical tour was revealed as an aid for improving the students' library orientation, as well as reducing embarrassment and apprehension in everything connected with library usage.

The virtual tour would certainly have been more valuable had the students read the explanations in the program. However, as is apparent from the interviews, most of the students do not read the instructions in the online tutorial.

Yet another advantage of the course over the online tutorial emerges from comparison of the course exercises with the online tutorial exercises. From this comparison we may conclude that whilst in the course the students practiced both simple and complex searches, the searches required for the students using the online tutorial were only on a basic level. Furthermore, the differing nature of the exercises in the course and the online tutorial determined the nature of the evaluation of the students' results in both study groups. The evaluation of results employed in the course is a sort of performance evaluation, and as such allows the students to put into practice knowledge learned in a specific framework in new contexts permitting personal and creative expression. The evaluation of results employed in the online tutorial is

carried out by multiple-choice tests in which the students have to select a fixed answer, prepared in advance, which is easy to check but does not permit evaluation of creativity or more complex activities such as organizing and creating a synthesis of information. We can infer from this that with respect to evaluating results the course is preferable in that it adopts the combined approach in teaching information literacy. Another advantage of the course over the program apparent from the qualitative research derives from the contact between the librarians and the 1st year students. These contacts allowed the students to receive individual assistance in the field of information searches and assessment in their 2nd to 4th years. Also during use of the program there was contact with the librarians when the students got 'stuck' attempting to solve the exercises and could not progress to the next stage, or in the event of technical problems, but since the students feel that they are obliged to carry out the exercise by themselves a request to the librarians for help cannot be taken for granted. An important conclusion to be derived from the interviews is that despite the attempts made in the course to teach basic and complex search skills together, it was not sufficient. This conclusion relating to the teaching of search skills in the course is also applicable with regard to the use of the online tutorial for library literacy, where the type of searches taught is even more limited. The skills acquired by the students were preserved only if reused more intelligently during their 2nd and 3rd years according to the demands of their lecturers. Continued use of information skills is bound to help the students during the process of gathering the material required for their 4th year seminar papers. Consequently, the emphasis on the need for extra instruction for the students in the field of information literacy during their 2nd and 3rd years.

The findings of the qualitative research show that while computer literacy is necessary, it is not sufficient to ensure fast or shorter acquisition of information literacy.

The interviews also show that the two teaching methods can be combined in order to achieve optimal results in teaching information literacy to the students.

In conclusion, comparison of the course and the online tutorial shows that the students who participated in the course received far more options for acquiring information literacy than those who used the program, from the point of view of group and individual instruction, exercise and activities, physical use of the library, and primary contact with the reference librarians. These options bore fruit not only in the short

