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The Value of lnformation Literacy Skills for Teaching and Learning

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The Value of Information Literacy Skills for Teaching and Learning

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Abstract

This article defines information literacy and how information literacy skills are important to education faculty and students. Education students are being prepared to assume their roles as teachers without realizing some of the important skills that are necessary for that role, such as information literacy. Teacher education students need to develop good information literacy skills so they can pass those skills on to their own students. In a qualitative study of teacher education students in a beginning-level professional education class, involving students in a hands-on activity involving information literacy resulted in teacher education student papers that were richer and better prepared.

Impact of Information Literacy

Information literacy, the process of gathering, assessing, filtering, and organizing information, is a basic skill that should be obtained during the formal PK-12 (preschool/kindergarten through 12) school years. Education faculty often assume that teacher education students have already acquired the skills necessary for effectively communicating information through formal papers assigned in class for the purpose of learning (Asselin & Lee, 2002). However based on teacher education student writing samples over the past few years, it has become evident that education faculty and library faculty need to collaborate to develop a plan of teaching activities that require the use of a variety of information resources. The plan needs to focus on the development of good information literacy skills that would engage future educational professionals by creating a higher order of learning for teacher education students, thus giving them the ability to successfully communicate what they have learned (Asselin & Lee, 2002). The plan could also assist in helping teacher education students develop problem-solving skills when using information literacy skills.

Need for Information Literacy Skills Integration: A Collaborative Plan

One of the first steps in developing a collaborative plan for information literacy is for education faculty and library faculty to determine what information literacy means and the information literacy skills that need to be developed in the teacher education students. The next step is deciding the type of activities that can be developed to help these teacher education students develop better information literacy skills. For example,

education faculty and library faculty can create a learning experience that involves the process of acquiring good information. This could be a hands-on demonstration by the education faculty and the library faculty for teacher education students on how to research for valuable information. Teacher education students could then use the skills they have been shown to do their own research in an assignment class activity based on research.

Once teacher education students have had this learning experience, the information literacy activity should be evaluated to determine if it was valuable and helped the teacher education students improve their information-seeking skills. Simply put, are the teacher education students better prepared to find the information they need through research methods that yield better sources to support teacher education students' work? A research information activity based on information literacy skills usually results in teacher education student papers that are prepared better and are richer in content. The better the information that the teacher education students find, the less likely they are to plagiarize or copy-and-paste others' work.

Numerous discussions centering on the importance of information literacy in teacher education programs have been documented. Marika Paez (2003) addressed the need of providing literacy training for education faculty. She stated, "Teachers need more professional development ... [in] what students need to know to be successful readers and writers and why they need to know these things" (p. 763). Paez's idea is supported by

Linda Darling-Hammond (1996) when she stated that teacher education students must be prepared with the kinds of knowledge and skills that these students will need to be successful. Therefore teacher preparation programs should include how teacher education students can better develop their literacy skills.

There are two issues concerning information literacy in that: a) either faculty do not know of the importance of developing information literacy in their students, or b) the system in which the faculty work does not support their efforts to pass on information literacy skills to their students (Darling-Hammond, 1996). These problems seem to be partly related to the fact that faculty do not have sufficient time for consultation with other colleagues about new teaching strategies or on refining lessons or learning about new methods of teaching. Many education faculty believe it would not be that difficult to orient teacher education students to the need for information literacy skills to be passed on to their own students. Therefore, education faculty must determine or recognize the need for developing information literacy skills in the teacher education students, then collaborate with library faculty in how to address this need.

Standards and Information Literacy

Several academic and professional institutions have documented the need for information literacy in teacher education programs. The American Association of School Librarians collaborated with the Association of Educational Communications and Technology to identify nine standards for student learning in its guidelines (AASL, 1998). In 1999, the Association of College and Research Libraries (ACRL) adopted the *Information Literacy Competency Standards for Higher Education*, which were later endorsed by the Association of Higher Education and the Council of Independent Colleges (ACRL, 2005).

Several regional accrediting commissions of higher education and professional education associations have also noted the need for information literacy skills. A comparison of the several standards for higher education accreditation found that both Western Association of Schools and Colleges (WASC) Commission for Senior Colleges and Universities and Middle States Association of Colleges and Schools specify information literacy as a requirement. This same comparison

found that most standards for higher education accreditation "strengthened the role of libraries and made the connections clearer between the use of libraries and information resources and an excellent learning environment" (Gratch-Lindauer, 2002).

Additionally, many state departments of education developed information literacy standards. The 2001 *Standards of Quality and Effectiveness for Professional Teacher Induction Programs* from the California Commission on Teacher Credentialing states, "Each participating teacher designs, adapts, and uses lessons which address students' needs to develop information literacy and problem solving skills as tools for lifelong learning" (California Commission, 2001).

Professional organizations have echoed the need for information literacy skills. The National Council for the Accreditation of Teacher Education (NCATE) illustrates the value of these skills in their standards when discussing teacher skills, "They are able to appropriately and effectively integrate technology and information literacy in instruction to support student learning" (NCATE, 2002). Without using the words "information literacy," the National Council for the Social Studies (NCSS) states that for students to gain skills in acquiring information and data, "the social studies program should be designed to increase the student's ability to read, study, search for information, use social science technical vocabulary and methods, and use computers and other electronic media" (NCSS, 1994). The National Council of Teachers of English and the International Reading Association jointly sponsor the *Standards for the English Language Arts* that outlines skills identified earlier as information literacy (n.d.). Additionally, a review of the national literacy standards established by the National Council of Teachers of English (1996) reveals recognition of the importance of the ability to use a diverse number of technological and informational resources that are available today because of computer technology. These resources help students to collect and analyze information for the creation and communication of knowledge.

Information Literacy Skills and Teacher Education Programs

As stated earlier, the information-seeking ability of teacher education students is over-estimated by

education faculty. This problem can be amplified by teacher education students when they become classroom teachers. If teachers have not learned the skills of information literacy, then they cannot pass these skills on to their future students. Education faculty can help teacher education students to investigate and assess information and to create and communicate that knowledge to further students' learning (Asselin & Lee, 2002). The following classroom activity can demonstrate the problem of teacher education students not understanding the value of good information literacy skills and the importance of developing these skills further.

For the past 3 years teacher education students in an educational foundations class have been given the assignment of a literature review on either a leader in education or an educational reform issue. These teacher education students were to do this literature review assignment in groups and then prepare a presentation on the information the group gained for the rest of the class at the end of the semester. After several semesters the education faculty became aware that the teacher education students' papers lacked the depth of research that a literature review should have. The papers were poor in format, and for the most part, were of low quality. The mechanics of the paper and writing styles were distracting, and the content was surface level. As a result of poor resources and poor writing styles, the grades of the papers were low. The education faculty felt that the quality of the literature review papers turned in by these teacher education students was no better than that of a high school paper.

The education faculty discussed this problem with the library faculty for the College of Education. These two professionals discussed that the teacher education students needed to learn how to be more literate when accessing information for their coursework and how to communicate this information successfully in their assignments (Asselin & Lee, 2002). Therefore, it was proposed that before the literature review assignment would be given in the educational foundations class, a presentation and a hands-on activity on information literacy would be developed for the teacher education students.

Information Literacy Skills Intervention

As a result of this proposal, the library faculty conducts a class on information literacy for educational foundational teacher education students at the beginning of each semester. The class meets in the computer lab to facilitate a hands-on learning activity on information literacy. An overview of information literacy and its relevance to the teacher education students' role as future teachers begins the class. Later the library faculty discuss the presence of information literacy in national and state standards. The class assignment of an upcoming literature review is broken down in terms of information literacy:

I. What type of information do they need to find?
    Background and statistical information
    Best practices
    Case studies
    Primary research

II. What are the best resources for each type of information and how can to find them?
    Library Catalog
    Specialized databases (*ERIC, Education Abstracts, PsycInfo*)
    National Center for Education Statistics

III. How can they then evaluate and select the most appropriate information sources?
    Peer review journals
    Professional journals versus scholarly journals

IV. How they appropriately use the information including correct citation of sources?
    APA citation style

The teacher education students were then encouraged to use the skills they were taught during the presentation with a topic they selected before they came to class. The idea was to have them apply the information given by the librarian so she could assist them in the beginning steps in the teacher education students' research. After the different avenues of information gathering were investigated, the library faculty then addressed

the teacher education students about how to use a specific style of writing that is encouraged for their major and gave handouts about various writing styles.

Once the information literacy presentation was completed, the teacher education students completed a five-question survey that asked questions relating to the helpfulness of the presentation, what they learned that was new, whether they think their literature review assignment would be easier to do, what else they would have liked to have learned about information literacy, and whether they recommend that a presentation be given to future educational foundations classes. Some interesting comments were found when analyzing the surveys that were completed by the teacher education students. Below are each of the five questions asked and a select few of the responses that were more frequently given or responses that were unique, yet insightful.

Question 1:
Was the information literacy presentation helpful? In what way?

Answers given:
"… it will give me more direction when conducting my research … how to more efficiently find sources and cut down on the time the research takes."

"… good advice given on how to improve search results."

"… break down the research process into four logical steps…"

Question 2:
What did you learn that was new? Please describe in detail.

Answers given:
"… how to use ERIC … EBSCO … Wilson … search engines."

"… I learned how to search for a journal before looking for specific titles of an article …"

"… showed us links to help with the APA style …"

"… If the search was too broad … it will refine the search …"

Question 3:
Do you believe it will be easier to do your literature review assignment now? Why or why not?

Answers given:
"… more places to find reliable sources."

"… the handout on how to cite works (helps)."

"… get the information I want … not have to surf the Internet …"

"… I will not have to read [material] … that doesn't even pertain to my subject."

Question 4:
What would you have liked to learn about information literacy, but did not learn in this presentation: Be specific.

Answers given:
"… I am sure there are many other aspects of the system (library) that I don't know …"

"… more about sources related to education …"

"… spent a little more time going into depth on ERIC …"

Question 5:
Would you recommend that a presentation on information literacy be given to future classes? Why or why not?

Answers given:
"… it cuts down on time spent in the library just trying to figure out how to locate resources."

"... gives you a good idea about what sources that will be valid when writing a paper ..."

"... it doesn't ever hurt to be refreshed since technology changes so quickly ..."

"... (this presentation) should be given to younger students ... so they will know everything from the start."

"... (this presentation) should be ... for every college course."

"... this opened my eyes, and I thought I was alright at doing research."

"... [University library] is probably being underutilized by the undergrads because of lack of information on how to [do so] ... effectively."

Information Literacy Skills Conclusion

The teacher education students who experienced the information literacy presentation have expressed that the presentation was helpful, that they better understood what information literacy is, and they now know better how to proceed in a fashion that would help them in preparing better papers. The teacher education students found that attending the information literacy presentation made the process of completing a literature review easier because they had acquired new skills in information literacy. They felt they now have a better understanding of what sources are available, how to successfully find information from each source, and how to spend more quality time in an in-depth search for information.

The education faculty has seen a definite improvement in the literature review papers turned in by the educational foundations teacher education students. The quality of the resources selected is better and, therefore, the depth of the literature reviews is much greater. The papers have also improved in writing style and in the mechanics of writing. The teacher education students not only covered the content well, but the format of the papers was more logical and easier to follow. The educational foundation teacher education students have shown that they better understand how to gather, assess, filter, organize, and communicate their newly acquired knowledge through the learning of successful information literacy skills.

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