This article describes a course-integrated approach to improve information literacy and writing skills for new students in a Community Counseling program. Graduate students are challenged with the overwhelming complexity of information and the demand to carefully access, critically evaluate, and systematically apply specific information. The Library Resource Guide for Counseling and Psychology was developed to operationalize library resources and identify discipline specific literature. Active learning focused on the following learning outcomes: attain bibliographic skills; identify discipline specific literature; conduct a database literature search; and write a scholarly literature review. Overall, students demonstrated improved information literacy and writing skills.

Graduate students in counselor education are required to access library resources in the pursuit of knowledge and scholarship. This information seeking requires the ability to find and retrieve literature from within the library, typically referred to as bibliographic skills (Owusu-Ansah, 2004). Most students have adequate bibliographic skills; however, not all of these adult learners are proficient at retrieving journal articles from electronic databases available at most university libraries. Although library staff are willing to provide the technical assistance necessary to utilize these resources, we found that counseling students can benefit from specific knowledge in regard to accessing and retrieving counseling and psychological journals (Tobin & Kramarik, 2004). Specialized instruction pertinent to the specific disciplines seems necessary for graduate level instruction.

This type of specific instruction is consistent with the initiative for information literacy, which suggests that more attention should be given to “the analysis of information needed, tangent material discovered, and the necessary evaluation of the information sources found” (Wesley, 1991). The Middle States Commission on Higher Education purports the value of information literacy and defines it “as the understanding and set of skills necessary to carry out the functions of effective information access, evaluation, and application” (2002, p.38). The conceptual and philosophical difference between bibliographic instruction and the acquisitive
nature of informational literacy is evident. Updated bibliographic instruction provides a necessary skill set, but information literacy will enable the counseling student to repeatedly utilize the constellation of discipline specific information throughout their graduate experience and career.

Information literacy promotes an active learning process. Owusu-Ansah expanded student learning outcomes to include the “technicalities of how to present the information they have, how to construct the structure of the paper, and the formal requirements of citations (2004, p.10). It was related that this demand is beyond the time allocation and resources of most libraries. Therefore, course-integrated instruction was reported to be a viable approach. Daugherty (1997) examined the effectiveness of outcome-focused library instruction in a psychology class. He reported that outcome-focused library instruction in psychology apparently led to skill development, improved efficiency, and positive attitude change for library use. These effects were believed to be enduring.

Other educators have recommended specific library instruction for psychology majors. (Merriam, LaBaugh, & Butterfield, 1992). They emphasized the need for faculty and librarian cooperation in helping students to develop information skills. As a result they developed minimum training guidelines for the specified skill-based competencies: “locating known sources; conducting a literature search; making effective use of resources once they are found; and developing an increased awareness of information resources in psychology and related disciplines” (p. 35). They contend that the long term goal of library instruction should prepare students to use library resources independently and throughout life. These previous studies underscore the utility of course-integrated instruction for attaining and improving information literacy. These educators infer that active learning is a viable means for achieving information literacy.

Literature searching is often associated with an assignment or paper. According to Granello (2001), graduate students in counselor education are expected to write comprehensive literature reviews that require cognitive complexity. Granello contends that not all students have developed the writing skills that are essential to engage in a complex writing assignment. Faculty are cautioned “not to assume that students who are cognitively advanced in other areas of their lives or in other areas of their academic programs will necessarily transfer those skills to their writing” (2001, p.301). In order to help students write cognitively complex literature reviews, Granello adapted Bloom’s Taxonomy (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956),and specified rubrics for writing outcomes applied to graduate level writing in counselor education.

As evidenced, Middle States, librarians, and educators reiterate the need for improved information literacy and proficiency in evaluating and applying this information. In counselor education, The Council for Accreditation of Counseling and Related Educational Programs (CACREP) has established program objectives to understand the importance of research in the counseling profession and the use of technology in conducting research, assuming basic computer literacy (i.e. research and program evaluation 8.a., 8.c) (CACREP, 2001). The Association for Counselor Education and Supervision (ACES) has recommended technical competencies for counseling students that include the ability to evaluate the quality of internet information (ACES, 1999). It appears that all of these cited individuals and organizations recognize the overwhelming complexity of information and the demand to carefully access, critically evaluate, and systematically apply specified information.
**Course-Integrated Instruction**

The emphasis to attain information literacy and provide discipline specific instruction is acknowledged. This article describes our attempt to improve information literacy for Masters level students enrolled in a Community Counseling program. This approach follows the suggestions for course-integrated and outcome-based instruction for information literacy. All new students admitted into the graduate Community Counseling program and enrolled in the foundations course were required to participate in active learning regarding the following learning outcomes: attain bibliographic skills; identify discipline specific literature; conduct a database literature search; and write a scholarly literature review.

Four methods of evaluating library instructional effectiveness were acknowledged: anecdote, survey, test, and evidence of use (Barclay, 1993). Among these methods, evidence of use seemed most appropriate for graduate level instruction. However, the other methods might provide more specific measures for outcome-based assessment. We relied on the completion of a comprehensive literature review for evidence of use. Several instructional methods were utilized to instruct students in scholarly writing and the literature review. A Library Resource Guide for Counseling and Psychology (Kramarik & Tobin, 2003) was developed to provide written guidelines for library resources and database information retrieval. This guide also delineates discipline specific journals and their availability online or in print holdings. The Library Resource Guide and scholarly writing are reviewed in the following sections.

**Library Resource Guide**

The Library Resource Guide for Counseling and Psychology is a paper bound manual that describes the library resources as well as database services. This guide also identifies discipline specific journals, available in the databases or held in the University library.

**Library Resources**

The Library Resource Guide provides a working knowledge of library resources necessary for conducting a literature review. Wizard provides a means of searching for available books from the library's webpage. Students are able to determine which specific books are available or unavailable for checkout. Books can be searched in both alphabetical and keyword format by author, subject, or title. Electronic reserve allows online access to reserve material from any computer with World Wide Web access. Scanned articles are linked to Docutek software and can then be accessed and printed. Electronic reserve eliminates the need to place copies of articles at the circulation desk. Instructors are encouraged to place relevant course material on electronic reserve. Although journal articles retrieved from databases are readily accessible, not all articles are available in full text format. In these cases it becomes necessary to use interlibrary loan while completing a literature review. Interlibrary loan is a service offered to students by which materials not owned by the library are obtained from other libraries. Requests for interlibrary loan are made through the reference desk at the library.
Database Searches

The library subscribes to several database services that hold psychological and counseling journals: FirstSearch, EBSCOHost, and PsycArticles. All of these databases hold ACA, APA and other psychology journals. The Library Resource Guide was updated September 1, 2004 and identifies the journals held in each of these databases. FirstSearch is a collection of databases that provide access to journals published from 1995 to the present that encompass a large variety of subject areas and newspapers using keyword searching. FirstSearch houses sixteen journals related to counseling and psychology, five of which are ACA journals. EBSCOhost is a database from the library’s journal vendor. This database provides users with the ability to search many print titles by keyword, author, or title. EBSCOhost contains twenty-two journals related to counseling and psychology. Of particular interest is PsycArticles, which is a database that consists of 49 full text journals ranging in years from 1917 to the present that utilizes keyword, title, and author searching. The entire list of APA journals is held in PsycArticles.

Journals

The expansive list and accessibility of database journals is impressive. The fact that these are all edited journals establishes a scholarly standard for literature reviews. The Library Resource Guide also includes the complete list of the eleven ACA and forty-nine APA journals. FirstSearch houses the following ACA journals: Counselor Education and Supervision, Journal of Addictions and Offender Counseling, Journal of Counseling and Development, Journal of Multicultural Counseling and Development, and Measurement and Evaluation in Counseling and Development. It is evident that ACA journals are not adequately represented in database searches. Therefore, it is necessary for university libraries to maintain an adequate selection of ACA journals in print. The Library Resource Guide also includes the entire list of counseling and psychology journals held in print at the University library.

Method

Scholarly writing is a learning objective and essential skill for graduate students. All new students in the Community Counseling program and enrolled in the foundations course were required to conduct a literature search and write a comprehensive literature review on a topic of interest to counseling. Our sample consisted of 33 students enrolled in two sections of the foundations course. Students were provided with bibliographic instruction and the Library Resource Guide for Counseling and Psychology. For the purpose of this writing assignment, approved literature sources included only those journals listed in the guide, available in the database or held in print. This expansive list of edited journals establishes a standard for scholarship and an appreciation for the professional literature. At least twelve references were required and students were encouraged to sample both ACA and APA journals along with other psychology journals.

New students are very familiar with term papers, but not with writing a scholarly literature review. Therefore, it was necessary to provide instruction. Two required texts and an article were utilized to help prepare students for writing the literature review. Reference was
made to an article by Granello (2001) that used Bloom's taxonomy as a pedagogical tool to improve literature reviews. Writing With Style: APA Style for Counseling (Szuchman, 2002) contained useful information on preparing, organizing, and editing the manuscript. Students were also required to purchase and adhere to the 5th edition of the American Psychological Association Publication Manual (2001). Common usage of the APA style manual was reviewed with special emphasis on citations and references. Other suggested guides for writing literature reviews include Galvin (2004) and Pan (2003). This assigned scholarly review of the literature followed a format similar to an APA style manuscript: abstract, introduction, statement of problem, literature review, discussion, and references. This type of format prompted students to apply critical thinking to their literature review.

The purpose of this assignment was to help students improve information literacy and writing skills. Since this assignment was developmental it was important to carefully critique the writing and provide specific feedback and comments for improvement. A Writing Scoring Guide was developed which consisted of a Likert-Type scale that evaluated four specific categories: (a) style—adheres to APA 5th edition; use of accurate grammar, spelling, word usage and sentence structure; (b) organization—arranged and orderly presentation of paper; clearly focused themes and transitions; (c) content—topic and length relevant to course assignment; adequate review and synthesis of literature; (d) critical thinking—analysis of literature is evident; problem statement, positions, and conclusions are coherent (See Appendix A). The writing scoring guide provided useful feedback to students. The primary researcher, who was the instructor of record rated students using the writing scoring guide. This guide was preliminary tested on students the previous year and was deemed a valid measure of scholarly writing.

Results

As a result of course-integrated instruction students were able to display information literacy by attaining the following learning outcomes: attain bibliographic skills; identify discipline specific literature; conduct a database literature search; and write a scholarly literature review. The completion of a scholarly literature review required them to integrate their learning. The scores that students attained on the writing Scoring Guide were considered satisfactory with a mean of 36. Command of APA style and writing skills were found to vary. Therefore, we recommend that future groups of students receive incremental feedback along strategic points in the writing process. This writing scoring guide could also provide an objective measure for group performance and a potential measure for future outcome assessment. Further evidence of scholarly writing includes feedback from other program faculty who subsequently instructed this same group of students. They have commented that the students seem better prepared and more confident to engage in writing assignments that involve literature reviews. Another related measure may be the increase in student scholarship, evidenced on our yearly outcome assessment report. This includes student presentations at conferences and publications. Prior to the implementation of course-integrated instruction student scholarship was minimal. In the last two years student scholarship was evidenced in 4 publications, 5 paper presentations, and 5 poster presentations. We equate this to faculty and student involvement with information literacy and an impetus for scholarly productivity. In summary, overall student performance on the writing guide demonstrated evidence of use in meeting the learning outcomes: attain bibliographic skills;
identify discipline specific literature; conduct a database literature search; and write a scholarly literature review.

Discussion

Information literacy appears to be an important learning outcome in counselor education. Our experience indicates that counseling students benefit from active learning and outcome-based instruction implemented to improve information literacy. The Middle States Commission of Higher Education has established learning outcomes for understanding research and evaluating information which encompass “effective information access, evaluation, and application” (MSCHE, 2002, p. 38). By acknowledging information literacy learning outcomes, counselor educators can begin to methodologically address this initiative.

The method we developed fit within the Community Counseling program. All new students are enrolled in a foundations course and are oriented to the program, graduate instruction, and the profession. Course-integrated instruction for information literacy is consistent with this training and is part of the masters’ programs graduate culture. Students are required to participate in active learning regarding the following learning outcomes: attain bibliographic skills; identify discipline specific literature; conduct a database literature search; and write a scholarly literature review. Student reports and course evaluations indicate that the majority of students benefited from these learning activities.

Updated bibliographic instruction is helpful, if not essential for returning adult learners. The Library Resource Guide helps to operationalize the library resources necessary to conduct a literature review. Literature searches are made more efficient by having the list of counseling and psychology journals available in each of the database searches or held in print. Accessing these edited journals establishes standards for future scholarship. Discipline specific information provides an accurate focus and appreciation for the counseling profession. Application requires a collaborative relationship with reference librarians; who we rely on for their valuable expertise and willingness to teach the bibliographic instruction component. Library staff is continually consulted for updated information since library resources change and database services frequently alter their journal holdings. Therefore, the Library Resource Guide will require yearly revision, preferably before the start of each fall semester.

Scholarly writing is a useful objective for new students. Command of APA style was found to vary; and for some students this was a formal introduction. We heeded Granello’s (2001) warning that not all students possess the cognitive complexity or writing skills necessary to write a literature review. Therefore, instructional guides are extremely helpful. The guides that we utilized (Granello, 2001; Szuchen, 2002) helped us as instructors to establish guidelines, structure, and expectations regarding the writing assignment. This same literature helps students to recognize and model writing skills, and apply critical thinking to their literature review. Students were expected to demonstrate information literacy and writing skills. Outcome assessment was based on evidence of use, the completion of a scholarly literature review. This proved to be an appropriate measure of graduate instruction. Others have used more empirical measures of outcome assessment for bibliographic instruction and library instruction (Daugherty, 1997; Barclay, 1993; Merriam et al, 1992). Another potential outcome might be more students involved in professional paper presentations or publications. These measures warrant scrutiny for future investigations. Considering the developmental learning associated with writing a literature
review, evidence in use, reinforces the goal of being able to utilize this information throughout the students' graduate experience and career.

The expectation is to continue with this writing program, and remain responsive to learning outcomes. As our program evolves more emphasis will be placed on internet sources and ethical issues, such as copyrights, intellectual property, and plagiarism. We also need to infuse this learning throughout the curriculum by recognizing the efforts of faculty who reinforce research and writing competencies. Finally, as accreditation organizations increasingly advocate for information literacy, counselor educators can respond through course-integrated instruction. Outcome based learning associated with information literacy is consistent with goals and aims of counselor education.
References


Appendix A

**Writing Scoring Guide**

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