

Evolution of the Thesis Literature Review: A Faculty-Librarian Partnership To Guide Off-Campus Graduate Research and Writing

Rosemary Green and Mary Bowser

Abstract

This paper describes a study that investigates the effect that a faculty-librarian collaboration had upon the quality of literature reviews produced by off-campus graduate thesis students. A rubric is used in the study to evaluate quality of content and composition. Data which indicates improvement in literature review quality is reported.

The off-campus graduate student must become acclimated to the requirements of an academic program in an environment apart from the traditional campus. When a master's research thesis is required for completion of the graduate program, the off-campus graduate student may undergo the entire thesis process lacking the benefit of interaction with faculty advisors and mentor-peers. The student may also lack immediate access to research resources. Despite geographical limitations, the off-campus graduate student must manage the complex process of gaining topic approval, identifying research sources, evaluating the sources, developing a comprehensive and scholarly review of

the literature, and applying the research literature to her or his own thesis project.

The Department of Education at Shenandoah University offers both on-campus and off-campus Master of Science in Education programs. Nearly two-thirds of the students enrolled in these programs participate as members of off-campus cohorts and complete all coursework at off-campus sites. Program courses are typically delivered by University faculty traveling to these sites; delivery format is face-to-face. Responding to a perceived need identified in evaluations of the program, a librarian began to participate more directly in the final thesis process. A teaching partnership between a graduate education professor and graduate instruction librarian was formed in 1999, and a faculty-librarian team now collaborates in teaching thesis research and composition courses.

This teaching partnership has given the graduate instruction librarian an enhanced opportunity to interact directly and consistently with graduate students throughout the stages of the thesis process, from proposal to final defense. The graduate librarian instructs

Rosemary Green is Graduate Programs Librarian, email: rgreen@su.edu; and Mary Bowser is Chair, Department of Education, email: mbowser@su.edu; Shenandoah University, Winchester, Virginia.

students in the research and evaluation strategies necessary for building a literature review during an introductory research methodology course. Typically the thesis course falls two semesters later, and, at that point, the graduate librarian instructs the students in more sophisticated strategies for identifying and analyzing research literature. Faculty and librarian guide students in determining appropriate subtopics, organizing the literature review, evaluating gathered resources, and establishing relationships within the body of literature.

From the earliest stages of the collaboration, we sensed that the quality of graduate theses began to change. As Rader (2001) recommended, we sought to gain evidence and determine whether measurable educational outcomes were achieved. In the attempt to establish whether the faculty-librarian collaboration affected the graduate thesis process, a pilot study was initiated in the fall 2001 term and has continued into the spring 2003 term. A rubric was used to evaluate content, composition, and format of thesis literature reviews.

Review of the Related Literature *Faculty-Librarian Collaboration*

During the last twenty years, academic libraries have undergone a dramatic shift in emphasis from traditional printed sources to sources presented in the electronic format. Consequently, students and faculty engaged in research continue to adjust their research strategies. Building upon the trend in bibliographic instruction that has evolved during the same twenty-year span, strong relationships between academic departments and the librarians who support these departments have developed (D'Amicantonio and Scepanski 1997; Robertson and Sullivan 2000).

The literature regarding collaborations between academic faculty and librarians can be divided into two categories. A greater number of examples can be found in discussion of the collegial model formed by teaching faculty and library staff (D'Amicantonio and Scepanski 1997; Heller-Ross 1996; Wright 2000). In this model, responsibilities such as library collection development, bibliographic instruction, initiatives to promote information literacy, and academic curricula development are shared by teaching faculty and librarians. Recently, Bruce (2001) identified several additional dimensions to faculty-librarian collabora-

tions, such as partnerships in policy development, research projects, higher degree supervision, and academic development. Heller-Ross (1996) and Wright (2000) both suggest that working partnerships between academic and library units ensures academic quality.

A second and smaller group of publications describes the team approach to course instruction in which a member of the teaching faculty and an instruction librarian collaborate to teach a significant portion or all of an academic course (Caspers and Lenn 2000; Isbell and Broaddus 1995; Stein and Lamb 1998). Referring to a team-taught course, Stein and Lamb (1998) describe a teaching format that allows repetitive introduction of research concepts and facilitates the advancement of student skills to a more sophisticated level. Stein and Lamb report that quality of student projects improved as a result of the close faculty-librarian collaboration. Caspers and Lenn (2000) indicate that this collaboration model is "exciting because it is so unique. Because few librarians are working collaboratively with teaching faculty, the opportunity to do so seems unusual" (151).

In his 1985 article entitled "Thesis Practicum and the Librarian's Role," Bailey recommends a three-way partnership formed with the graduate thesis student, the thesis advisor, and the librarian. Macauley and Cavanagh (2000) draw upon that recommendation and, in describing the same partnership, state that the benefit to be gained "combines the various talents and strengths that only disparate experts can achieve" (228). Higher degree supervision partnerships, as described by Macauley and McKnight (1998), lead to several benefits, including higher quality research and improved literature reviews.

The Scholarly Literature Review

The production of the scholarly literature review requires skills in planning, information retrieval and evaluation, and composition. According to Cooper (1989), social science methods texts have failed to give adequate attention to the literature review. Cole (1993) and Granello (2001) also note a lack of attention to reviewing and integrating the literature. While methods of identifying and accessing information are frequently addressed, "little is available on the crucial process of preparation of the review" (Libutti and Kopala 1995, 15).

Evolution of the Thesis Literature Review

Development of the literature review is both process and product. The novice graduate researcher initially views the literature review as a list of sources. Eventually the literature review evolves into a vehicle for shaping research, then a final integrated report (Bruce 1994a; Cole 1993). The process of developing a review of relevant literature often causes considerable anxiety in graduate students (Green and Bowser 2001; Macauley and Addie 1999). While the literature review is an important thesis chapter, Zaporozhietz (1987) found that it may be given the least measure of supervision by graduate advisors. The extent to which supervisory intervention by teaching faculty, graduate advisor, or librarian might be needed is unclear. Nevertheless, as the literature review process requires transition to a sophisticated product (Bruce 1994a), the interaction of student, faculty, and librarian is important. Both librarian and teaching faculty should participate in instructing graduate students in developing useful strategies for development of the literature review and in critically examining the literature review (Gottlieb 1994).

The current study adds to the literature that examines the scholarly literature review and offers an instrument for evaluating the literature review. The study also contributes to the relatively small body of research that examines faculty-librarian collaboration in co-teaching graduate distance education courses.

Methodology

First, we developed a ten-item, five-category rubric to rate thesis literature reviews. To establish instrument validity and reliability, we used the rubric in an initial pilot of ten literature reviews. The rubric was revised, and a second analysis of eight different literature reviews was performed, followed by the current study of eight additional literature reviews. In all phases, half of the samples were drawn from thesis literature reviews written by students who received little or no instruction from the graduate programs librarian (control group), and half were drawn from students who participated in the collaborative model (experimental group). Paired teacher-educator readers rated the randomly drawn samples in the latter two analyses. Each sample was examined and rated by two separate readers.

An assumption of the study was that literature reviews which received higher ratings on the rubric

were of higher quality. A two-sample, one tail *t* test was used in the analysis of score totals. In addition, mean gains scores were calculated for each of the ten criteria. The results of the eight-sample study recently conducted in the fall 2002 semester are reported here.

Rubric (Criteria for Evaluation of Literature Review)

The scholarly literature review is more than a recitation of information gathered from other sources or an annotated bibliography (Bruce 1994b; Granello 2001). An adequate review of the literature is comprehensive and well organized. A well written literature review also analyzes and relates various sources and places the current study within the context of the body of relevant research. Complex skills, such as familiarity with a range of research sources, the ability to organize research sources logically, and clear and insightful writing, are necessary. The rubric was developed to establish a clear outline of elements necessary to a literature review and to provide guidelines for assessment.

The ten criteria delineated in the rubric fall into three major areas: Content, Presentation, and Writing/Format. Content criteria rate inclusion or demonstration of historical studies, subtopics, seminal and landmark studies, quality of literature, and relevance of literature. Presentation criteria rate overall organization, transitions, and study rationale. Writing/format criteria rate clarity of writing and bibliographic format. Each criterion is described by five categories of increasing complexity. Each category is assigned a point value. One point is assigned to the Deficient category, two points to Undeveloped, three points to Emerging, four points to Developed, five points to Exemplary. The qualities necessary to achieve each rating for each criterion are thoroughly described on the rubric. A total of 50 points is possible.

Students in the experimental group were provided a copy of the rubric during early class discussion in the thesis course. Throughout the semester-long course, the students were provided instruction in selection and analysis of research sources, in construction of the literature review, and in correct bibliographic format. As students submitted thesis drafts, the rubric was used to indicate their progress. Following strategies similar to those recommended by Bruce (1994b), thesis students in the experimental group were required to organize the literature by topic as soon as the col-

**Table 1. Results of t Test, Rubric
(Criteria for Evaluation of Literature Review)**

	<i>N</i>	<i>Df</i>	<i>M</i>	<i>SD</i>	<i>T</i>	<i>p</i>
experimental	8	7	39.9	7.61	2.74	<0.01
control	8	7	30	6.82		
Critical <i>t</i> = 1.761		$\delta = 0.05$				

lection of sources was undertaken; to use concept maps to identify relationships between various studies and with their own research; and to write and revise, revise and write. Because the ten rubric criteria address elements of resource quality, review construction, quality of writing, and bibliographic format, students were provided a checklist of the elements necessary for a well-crafted review. Students also used the five categories for each criterion to follow the stages of literature review development. Students in the control group were not shown a copy of the rubric, nor were they given comparable instruction.

Faculty readers who have used the rubric to rate samples of thesis literature reviews have commented on the clarity of the instrument and relative ease in rating writing quality that the rubric allows. Students appreciate having guidelines to follow as they develop their literature reviews.

Findings and Discussion

Four literature review samples from the experimental group were read, rated, and compared to four literature review samples from the control group; each sample was evaluated twice. Results from the data analysis of total rubric scores indicated that ratings of literature

reviews authored by experimental group students were higher than those from the control group (Table 1). The results of the *t* test were very significant ($p < 0.01$), demonstrating that the students who received instruction from the faculty-librarian team and who followed rubric criteria to guide their research and writing produced literature reviews of higher quality.

In addition, each criterion value from the experimental sample was compared with each criterion value from the control sample. Mean gain scores were calculated (Table 2). We noted the specific areas where mean gains in quality increased. Items 2, 3, 4, 5, 6, and 8 increased at least one full criterion point. Item 3, students' use of seminal studies, gained the most with an average 1.5 criterion points. Items 1, 7, and 9 were also close to the one point gain. Item 10 showed the least gain, but this criterion was one of the strongest in the control group. Assistance in using correct bibliographic format is readily available to all graduate students throughout their program, so that information is common to most students regardless of the thesis class format.

Two limitations must be noted. The graduate faculty and librarian provided the treatment under examination and conducted the study. Also, the sample size was small. Our recommendations and intentions are to replicate this study with a sample of 20 to 30 theses, because the evidence presented herein implies that increased samples will most likely improve the level of significance.

We reported a trend toward increased quality of literature review production at a presentation given during the Tenth Off-Campus Library Services Conference (Green and Bowser 2001). The current study verifies those findings and now indicates a significant improvement in the quality of thesis literature reviews when considered in the framework of the collaborative model.

Macauley and McKnight (1998) have proposed that a three-way partnership of faculty, librarian, and student can assure several favorable outcomes. Higher standards of research may be demon-

**Table 2. Rank Order of Mean Gain Scores,
Rubric Criteria 1-10**

Criterion	Mean Gain
3. seminal and landmark studies	1.5
2. breadth of subtopics	1.3
4. quality of literature	1.2
6. organization	1.2
5. relevance of individual studies	1.1
8. study rationale and contributions	1.0
9. clarity of writing and interpretation of literature	0.9
7. transitions	0.8
1. historical and theoretical background	0.7
10. bibliographic format	0.4

Evolution of the Thesis Literature Review

strated, and student development can be monitored as the thesis progresses. In the current study, we found that weekly contact with class members in the thesis course facilitated regular submission of written drafts of the thesis, including cumulative drafts of the literature review. Consequently, the students received regular, timely, and appropriate feedback from faculty and librarian readers (Aspland, Edwards, O'Leary, and Ryan 1999; Gottlieb 1994). Students have noted that they get assistance quickly, and, as one of our students said, "The collaboration allows for quick feedback for both research and format questions as well as for content questions."

Based on such feedback and in light of the data from this small study, we are encouraged and are continuing to use this approach to instruction of off-campus graduate students. The faculty-librarian team approach is now used at two graduate Education program levels, operating in both masters and doctoral courses. The study will extend into the spring 2003 semester, and any new information gained will be presented at the Association of Research and College Libraries Conference in April, 2003.

References

- Aspland, T., H. Edwards, J. O'Leary, and Y. Ryan. 1999. Tracking new directions in the evaluation of postgraduate supervision. *Innovative Higher Education* 24: 127-47.
- Bailey, B. 1985. Thesis practicum and the librarian's role. *Journal of Academic Librarianship* 11: 79-81.
- Bruce, C. 2001. Faculty-librarian partnerships in Australian higher education: Critical dimensions. *Reference Services Review* 29: 106-15.
- Bruce, C. 1994a. Research students' early experiences of the dissertation literature review. *Studies in Higher Education* 19: 217-29.
- Bruce, C. 1994b. Supervising literature reviews. In O. Zuber-Skerritt and Y. Ryan, eds., *Quality in postgraduate education*, 143-55. London: Kogan Page.
- Caspers, J., and K. Lenn. 2000. The future of collaboration between librarians and teaching faculty. In D. Raspa and D. Ward, eds., *The collaborative imperative: Librarians and faculty working together in the information universe*, 148-54. Chicago: Association of College and Research Libraries.
- Cole, K. 1993. *Doctoral students in education and factors related to the literature review process*. Unpublished master's thesis, Fort Hays State University, Fort Hays, KS. (ERIC Document Reproduction Service ED349892)
- Cooper, H. M. 1989. *Integrating research: A guide for literature reviews* (2d ed.). Newbury Park, Calif.: Sage.
- D'Amicantonio, J., and J.M. Scepaniski. 1997. Strengthening teacher preparation through a library program. *Education Libraries* 21 (1/2): 11-16.
- Gottlieb, N. 1994. Supervising the writing of a thesis. In O. Zuber-Skerritt and Y. Ryan, eds., *Quality in postgraduate education*, 110-19. London: Kogan Page.
- Granello, D. H. 2001. Promoting cognitive complexity in graduate written work; Using Bloom's taxonomy as a pedagogical tool to improve literature reviews. *Counselor Education and Supervision* 40: 292-307.
- Green, R., and M. Bowser. 2001, April. *Managing thesis anxiety: A faculty-librarian partnership to guide off-campus graduate students through the thesis process*. Paper presented at the Tenth Off-Campus Library Services Conference, Cincinnati, OH.
- Heller-Ross, H. 1996. Librarian and faculty partnerships for distance education. *MC Journal; The Journal of Academic Media Librarianship* 41 (1): 1-8.
- Isbell, D., and D. Broaddus. 1995. Teaching writing and research as inseparable: A faculty-librarian teaching team. *Reference Services Review* 23 (4): 51-62.
- Libutti, P., and M. Kopala. 1995. The doctoral student, the dissertation, and the library: A review of the literature. *The Reference Librarian* 48: 5-25.
- Macauley, P., and J. Addie. 1999, September. *Collaborating to a higher degree*. Paper presented at the 1999 Reference and Information Service Section Conference and Exhibition, Sydney, Australia.
- Macauley, P., and A.K. Cavanagh. 2000, April. *Doctoral dissertations at a distance: A novel approach from downunder*. Paper presented at the Ninth Off-Campus Library Services Conference, Portland, OR.
- Macauley, P., and S. McKnight. 1998, April. *A new model of library support for off-campus postgraduate research students*. Paper presented at the 1998 Quality in Postgraduate Research Conference: Making ends meet, Adelaide, Australia.
- Rader, H. 2001, August. *Managing academic and research library partnerships*. Paper presented at the 67th International Federation of Library Associations Council and General Conference, Boston. (ERIC Document Reproduction Service No. ED459774).
- Robertson, S., and S. Sullivan. 2000, October. *The rediscovered agents of change: Librarians working with academics to close the information gap*. Paper presented at

April 10-13, 2003, Charlotte, North Carolina

- the Australian Library and Information Association 2000: Capitalizing on Knowledge; The Information Profession in the 21st Century, Canberra, Australia. (ERIC Document Reproduction Service ED452877).
- Stein, L.L., and J.M. Lamb. 1998. Not just another BI: Faculty-librarian collaboration to guide students through the research process. *Research Strategies* 16 (1): 29–39
- Wright, C. A. 2000. Information literacy within the general education program: Implications for distance education. *JGE: Journal of General Education* 49 (1): 23–33.
- Zaporozhetz, L. E. 1987. *The dissertation literature review; How faculty advisors prepare their doctoral candidates*. Unpublished doctoral dissertation, University of Oregon, Eugene.