Information Literacy and Communication Research: A Case Study on Interdisciplinary Assessment

By: Elizabeth J. Natalle & Kathryn M. Crowe

Abstract:

This report offers an interdisciplinary approach for conducting assessment on learning outcomes in undergraduate communication research skills where information literacy is embedded in the expected outcome. A Communication Studies department and the University Library piloted a two-year program to develop strategies for coordinated assessment that give feedback to both the Department and the Library. This collaborative model could be applied to any type of communication learning outcome that is related to information literacy.

Keywords: Assessment | Information Literacy | Communication Research | Learning Outcomes

Article:

Communication Studies departments across the United States have integrated assessment into departmental practices due in large part to the push for accountability that has swept state legislatures over the past two decades (Banta, 2007). Accrediting agencies have long monitored and evaluated universities in meeting program learning outcomes, and the National Communication Association (2012) has maintained a continual focus on student learning outcome assessment and program assessment. For many years, assessment practices in Communication Studies have been associated with speaking and listening using the NCA Competent Speaker Evaluation Form (Morreale, Moore, Surges-Tatum, & Webster, 2007) and competency tables (Morreale, Rubin, & Jones, 1998). Interpersonal aspects of conversation competence are frequently measured using Spitzberg's (2007) Conversational Skills Rating Scale (CSRC). These fundamental behavioral skills are at the core of the discipline; however, student learning outcomes in most departments now integrate an even wider range of outcomes. For example, Spitzberg (2011) recently reported a sophisticated online instrument for a more comprehensive approach to 40 different types of student self-report and peer-report competencies that departments can use in their assessment procedures. It remains to be seen if this instrument will be adopted nationally.

Morreale, Backlund, Hay, and Moore's (2011) metareview of oral communication assessment provided an excellent summary of the state of the discipline at this time. Their findings indicated that we have established definitions and the what-and-how of assessment. That is, we know what assessment is, why we do it, what we are assessing, and how we proceed. However, one thing is clear: we do most of our assessing from an *intra*disciplinary perspective; that is, we concentrate on practices within communication. The present report documents an *inter*disciplinary collaboration between a Communication Studies department and the University Library that followed the spirit of Clark's (2002) suggestion to creatively engage research to document the association between instructional practice and educational outcomes. If the discipline follows Clark's suggestion, we can expect the development of excellent models for continued good teaching, high student performance, and generalizability of knowledge and skill.

Information literacy is a natural component of the field of Communication and one we value in our Communication Studies (CST) department. Our University Information Literacy Council adopted the following definition adapted from the Association of College and Research Libraries (2000): "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, synthesize, and critically analyze and integrate the information effectively and ethically (pp. 2–3)." This definition fits quite well with our faculty conception of what communication students should be mastering regarding literacy skills, and CST faculty wish to both incorporate and assess the intersection of communication and information literacy.

Context, Rationale, and Research Problem

This report is the product of a multiyear collaboration between the Communication Studies Department at a mid-Atlantic public university and the University Library. The authors are a communication professor and a university librarian, both serving as assessment coordinators for their academic unit. For over twenty years, the two of us worked together to deliver library instruction to juniors and seniors enrolled in a required communication theory course who were, in many instances, writing their first in-depth research paper in the discipline. It was clear to us early on that information literacy skills and communication research skills are intertwined skills sets. In 2008, our faculty senate adopted a core University learning goal that included both communication and literacy: *Think critically, communicate effectively, and develop appropriate fundamental skills in quantitative and information literacies*. The Department of Communication Studies has four student learning outcomes (SLOs) in its undergraduate B.A. program. SLO4 reads: *The student should be able to engage communication scholarship using appropriate theory and research methods*. This SLO gets translated into specific courses in the major as appropriate; in the communication theory course three interrelated SLOs break SLO4 into manageable parts. One directly addresses information literacy:
The student should be able to apply a working knowledge of information literacy as a tool for scholarship in communication studies including APA style for professional writing, library search techniques, and use of primary sources (journal articles and other research publications).

This is the outcome that was used as the basis for the present assessment project. In 2010, our University created a full-fledged Student Learning Enhancement Committee (SLEC) to oversee all assessment, thus motivating us further to offer some kind of assessment model that the Library could use across the University in its teaching effort (over 500 instructional sessions a

year), and that the Department could use to enhance achievement on SLO4. We conducted an assessment study with two specific objectives: first, to determine whether the Library and an academic department could jointly address required assessment; and second, to assess whether CST students in junior-level required courses were gaining the information literacy skills needed to succeed in the major.

Over the years, faculty and librarians have observed in CST 300 that students come to research late in their coursework (second semester junior or senior year), cannot complete library assignments that required basic use of the online catalog and databases, and seem to have trouble finding credible communication-oriented primary sources to support their work. Because the only required library training before they reach CST 300 comes in the first-year introductory hybrid course, students seem to be unable to retain or transfer literacy skills in a program where projects and field work are more common than advanced library research. We sought evidence to document our casual observations so we could recommend changing the pedagogy to support student learning goals and strengthen the curriculum in CST.

Methods and Procedures

Communication Theory (CST 300) is the gateway to all higher-order courses in the major— where information literacy skills and further communication research are required. Students in CST 300 use primary research articles from communication studies and allied journals to write an 8–10 page paper placing a communication theory in a context or application. The assignment provides the opportunity for students to learn the concepts of developing a search strategy with Boolean operators and using appropriate databases and other tools to find research material. To build upon the fundamental information-gathering skills covered in the introductory hybrid course, the long-established pedagogy for the information literacy section of the course requires the students to attend one library instruction session and complete a worksheet evaluated by both the librarian and the faculty member. An online research guide is available on the library website and Blackboard. The worksheet is a performance evaluation that asks students to define their theory and application and then choose books and articles related to their paper topic. Entries on the worksheet are required in American Psychological Association (APA) format. When evaluating the worksheets, the librarian assesses whether the articles are from appropriate journals, are primary sources, and if they include both the theory and the context. Suggestions and comments are noted and then sent to the professor for further comments and grading before being returned to the students. The worksheet is part of a sequence of assignments that later includes an annotated bibliography and early drafts leading up to the final paper.

To evaluate this method of information literacy instruction, we designed a four-semester assessment project beginning in Spring 2009 and terminating in Spring 2011. Guided by the literature on assessment of information literacy (Knight, 2006; Oakleaf, 2009; Pausch & Popp, n.d.), the librarian and professor first identified information literacy goals for the library instructional session. Three specific learning outcomes were established:

1. Students construct a search strategy using appropriate vocabulary and Boolean operators in order to search for information effectively.

2. Students distinguish primary source journal articles in order to gather appropriate resources for a research paper.

3. Students apply an established citation style in order to document the sources they use appropriately.

The study began by assessing the previously established pattern of information literacy instruction in the theory course. Students were encouraged (but not required) to complete the Library's online Research Tutorial. Subsequently, they attended one 75-minute session with the librarian who covered the following topics: using subject encyclopedias and texts to choose relevant vocabulary; selecting and using databases, particularly Communication and Mass Media Complete (CMMC); choosing terms and applying Boolean operators; identifying scholarly and primary source articles; and identifying Communication Studies and allied journals. A handout for APA was distributed, but little time was spent on citation styles during the class session. During the hands-on session, students were given time to search for material on their topics and begin completing the worksheet. Both the librarian and communication faculty member assisted students during the workshop portion of the session. The worksheet was due one week later.

Based on the research literature on use of rubrics in evaluation of information literacy (Choinski, Mark, & Murphey,2003; Knight, 2006; Oakleaf, 2009), students' worksheets were scored as follows: *Needs Improvement* (0), *Acceptable*(1), or *Excellent* (2). Using this rubric, the librarian scored the worksheets and provided additional feedback for the students. In the initial semester when we assessed established instructional procedures in the theory course (n=34), students' performance scores were not uniform across the three outcomes (see Table 1), nor were they high enough to be deemed by the librarian and professor as satisfactory. These results provided evidence that students were not gaining consistent, high levels of knowledge identified in the learning outcomes, and that changes in the pedagogy were needed for more student success. Thus, three changes, two instructional and one procedural, were made for the following semesters:

*   Students were required (not merely encouraged as in the past) to take three specific chapters of the Library's online Research Tutorial ("Computer Searching," "Finding Articles," "Citing Your Sources") before the instruction session with the librarian to provide more background in developing a search strategy, Boolean operators, choosing appropriate articles, and the APA citation style.

*   The instructional session was delayed for two weeks so that students would have more time to develop their topics and absorb material from the tutorial.

*   The rubric was revised to include four levels: *Needs Improvement* (0), *Acceptable* (1), *Good* (2), and *Excellent* (3) to more accurately document the range of performance. The librarian applied the revised rubric to rescore the worksheets

from the initial semester so that all scores could be compared.

Table 1   Mean Performance Scores for Three Information Literacy Learning Outcomes
(*n*=34)

Outcome	Score (Original Assessment Scale 0–2)
Search Strategy	1.10 (55% of maximum possible)
Appropriate Sources	1.36 (68% of maximum possible)
Citation Style	.72 (36% of maximum possible)

After we implemented these changes, the study continued in the Fall semester with two sections of the course (*n*=60), followed by a single section in the Spring semester (*n*=24). Before data were collected for the fourth and final semester of the study, we introduced an additional instructional element to address the nature and importance of primary sources in the social sciences (Outcome 2). This represents a challenge in Communication Studies because of various paradigmatic approaches. Primary research may include critical analysis, rhetorical studies, scientific analysis, interpretation, or extension of a theory. To help students apply these concepts, we developed and introduced a five-minute flash tutorial, "Finding Primary Sources in Communication Studies." During the final semester of the study, students were required to take the new tutorial in addition to the chapters from the general online tutorial assigned the previous semesters. Two sections of the course (*n*=52) participated in this final semester of the study.

Results

As seen in Table 2, mean performance scores increased with the addition of the required online tutorial (second and third semesters), and again with the addition of the flash tutorial (fourth semester). In the original course design, students demonstrated mastery of only 43% of search strategies (Outcome One, *M*=1.3). For students in the second and third semester when the online tutorial was required, scores indicated 80% mastery (*M*=2.4). In the final semester when the online tutorial and the flash tutorial were required, scores indicated 93% mastery of search strategies (*M*=2.8). For Outcome Two, the use of appropriate sources, first-semester scores increased from 63% mastery (*M*=1.9) to 85% mastery in the second and third semesters (*M*=2.5, 2.6), followed by 80% in the final semester of the study (*M*=2.4). Students' use of correct citation style (Outcome Three) began at 43% for the first semester (*M*=1.3), then increased to 58% in the second and third semesters (*M*=1.7, 1.8), with a final increase to 67% at the end of the study (*M*=2.0).

Table 2 Mean Performance Scores for Three Information Literacy Learning Outcomes (Revised Assessment Scale 0–3)

Outcome	Spring 2009 (*n*=34)	Fall 2009 (*n*=60)	Spring 2010 (*n*=24)	Spring 2011 (*n*=52)
Search Strategy	1.3	2.4	2.4	2.8
Appropriate Sources	1.9	2.5	2.6	2.4
Citation Style	1.3	1.7	1.8	2.0

Discussion and Implications

The purpose of this collaborative project was to develop a model for interdisciplinary assessment of learning outcomes, as well as to evaluate students' mastery of information-gathering skills in an upper-level Communication Studies course. We succeeded in providing a model for interdisciplinary assessment wherein information literacy and discipline content can be joined to evaluate specific student learning outcomes. Through this collaborative assessment, the University Library and the Communication Studies Department developed a model that included the following components: learning outcomes that honor the needs of the academic unit within the guidelines of the university assessment procedure; pedagogical methods that combine the expertise of both academic units; and assessment procedures that require collaboration. In this case study, the original instructional worksheet used in the library session was reworked by both the librarian and the faculty member. The flash tutorial on primary sources in communication was developed by both partners in order to specifically address the needs of CST majors. The student learning outcomes for the course and the Library's assessment needs were integrated and rubrics developed by both partners to best serve the situation. This model was time-consuming in the beginning because we had to work from a grounded method over time; that is, as the collaboration with the Library revealed strengths and weaknesses across the four semesters of the project, we made adjustments and learned how information literacy was related to teaching Communication Studies.

The study offered an excellent opportunity to build upon a successful collaborative relationship between the Library and the Communication Studies Department. This authentic assessment of an assignment that was part of the sequence of the course provided evidence that students were not acquiring the skills that both the teaching faculty and librarians wanted them to learn. The Library and the CST Department partnered more closely to develop focused outcomes and more rigorous measurement. As a result we revised the pedagogy that improved students' performance and integrated information literacy further into the CST curriculum.

In addition, the results of this study indicated that adjustments in instructional practices in CST 300 resulted in higher performance scores for student learning objectives involving research skills. These positive results provided motivation for the Communication Studies Department to emphasize and assess information literacy skills in all courses. By surveying faculty members, we gathered information for each course in the curriculum regarding departmental learning outcomes addressed, information literacy outcomes addressed, and research methods/skills emphasized. The results of that survey gave the Department direction for rewriting course-specific student learning outcomes in the way we had already done for CST 300 to embed information literacy into communication outcomes. It should be emphasized that the faculty would probably not have done the work to retool all our SLOs across the CST curriculum if we had not documented the results of the collaborative assessment with the Library. The payoff at

the end was a level of generalizability that can be applied to all the library instruction in CST courses. It will now be more systematic to integrate information literacy training into the communication curriculum and for that integration to be appropriately assessed. This is a win–win situation in the current environment of mandatory assessment.

At the end of academic year 2011–2012, the Student Learning Enhancement Committee (SLEC) selected the project as the winner of the University Assessment Award. In their review of the project, SLEC noted the following:

The Library and the Communication Studies Department is a sterling example of a culture of evidence at work, one that we could point to and simply say, "Do it like this." The Communication Studies Department took a specific SLO, created and administered a measurement instrument, developed a clear action plan based on their findings, and then reassessed. This [collaborative] process and its explicitness is precisely what SLEC would want to serve as an exemplar.

The Library established student learning outcomes for information literacy based on the Association of College and Research Libraries (2012) standards, and they are now embarking on a five-year plan to assess these outcomes and corresponding instructional program in a variety of classes. The Communication Studies Department used the internal survey on information literacy skills to rewrite student learning outcomes in *all* CST courses. As a department we are in a better position to now deliver a cohesive curriculum that integrates communication and information literacy. As a result of the assessment collaboration, both the Library and the Communication Studies Department are fluent in interdisciplinary approaches to assessment and are better prepared to partner with other academic units where appropriate.

References

1. Association of College and Research Libraries 2000 . Information literacy competency standards for higher education . Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/standards/standards.pdf
2. Banta, T. W. 2007. Can assessment for accountability complement assessment for improvement?. *AAC&U: peerReview*, 9(2): 9–12.
3. Choinski , E. , Mark , A. E. , & Murphey , M. 2003 . Assessment with rubrics: An efficient and objective means of assessing student outcomes in an information resources class . *Portal: Libraries & The Academy* , 3 , 563 – 575 . doi:10.1353/pla.2003.0078
4. Clark, R. A. 2002. Learning outcomes: The bottom line. *Communication Education*, 51: 396–404.
5. Knight , L. A. 2006 . Using rubrics to assess information literacy . *Reference Services Review* , 34 , 47 – 48 . doi:10.1108/00907320610640075

6. Morreale, S., Backlund, P., Hay, E. and Moore, M. 2011. Assessment of oral communication: A major review of the historical development and trends in the movement from 1975–2009. *Communication Education*, 60: 255–278.

7. Morreale , S. , Moore , M. , Surges-Tatum , D. , & Webster , L. 2007 . *The competent speaker evaluation form* , (2nd ed.) . Washington, DC : National Communication Association . Retrieved from http://www.natcom.org

8. Morreale , S. , Rubin , R. B. , & Jones , E. 1998 . *Speaking and listening competencies for college students* . Washington, DC : National Communication Association . Retrieved from http://www.natcom.org

9. National Communication Association 2012 . Assessment resources . Retrieved fromhttp://www.natcom.org/Secondary.aspx?id=119

10. Oakleaf , M. 2009 . Using rubrics to assess information literacy: An examination of method and interrater reliability . *Journal of the American Society for Information Science and Technology* , 60 , 972 – 973 . doi:10.1002/asi

11. Pausch , L. M. , & Popp , M. P. (n.d.) . Assessment of information literacy: Lessons from the higher education assessment movement . Chicago : Association of College and Research Libraries . Retrieved fromhttp://www.ala.org/ala/mgrps/divs/acrl/publications/whitepapers/nashville/pauschpopp.cfm

12. Spitzberg, B. H. 2011. The interactive media package for assessment of communication and critical thinking (IMPACCT©): Testing a programmatic online communication competence assessment system. *Communication Education*, 60: 145–173.

13. Spitzberg , B. H. with Adams , T. W. III 2007 . *CSRS: The conversational skills rating scale—An instructional assessment of interpersonal competence* . (NCA Diagnostic Series, 2nd ed.) . Washington, DC : National Communication Association . Retrieved from http://www.natcom.org