Journal of the Association for Communication Administration
29(2000), 155-162

Communication Laboratories: Genesis, Assessment, Challenges

KATHLEEN ELLIS
PAMELA SHOCKLEY-ZALABAK
MICHAEL Z. HACKMAN

COMMUNICATION competence is of critical concern in today's competitive, global community. Studies consistently point to the importance of communication competence for both academic and professional success (Curtis, Winsor, & Stephens, 1989; Engleberg & Wynn, 1994; Harrell & Harrell, 1984; Maes, Weldy, & Icenogle, 1997; Peterson, 1997; Rubin & Graham, 1988; Rubin, Graham, & Mignerey, 1990; Whetten & Cameron, 1993). Yet, the quality of educational preparation in the basic communication skills is insufficient for students to compete in the new millennium. The gap between the level of communication competence students bring to the college or university as freshmen and the level of competence needed to successfully compete upon graduation continues to expand at an ever-increasing rate.

The communication laboratory is one educational strategy for addressing the issue of communication competency in the 21st century. Communication laboratories across the United States exist at schools such as Columbus State University, East Tennessee State University, Golden West College, Ithaca College, Luther College, San Jose State University, College of San Mateo, the College of William and Mary, Southwest Texas State University, and the University of Colorado at Colorado Springs. (For a more complete listing of communication laboratories and contact personnel, see the NCA e-mail listserve at ncacommlab@onelist.com.). These laboratories were developed to meet critical institutional priorities, including enhancement of students' oral communication skills, helping students across the curriculum with identified communication skill problems, and developing academic programs to increase student persistence and retention to graduation.

The purpose of this article is to briefly describe (a) a rationale for creating communication laboratories; (b) communication laboratory curricula and approaches; (c) development strategies for communication laboratories; (d) communication laboratory assessment, accountability, and research opportunities; and (e) communication laboratory issues and challenges. The article concludes with a list of guiding principles that lead to the successful implementation of communication laboratories.

RATIONALE FOR LABORATORIES: THEORY, PRACTICE, AND ANALYSIS

Communication laboratories provide the opportunity to systematically apply the communication competency construct to the university undergraduate student. Littlejohn and Jabusch (1982) define communication competency as "the ability and willingness to maximize the outcome of shared meaning" (p. 29). Communication competence requires not only the knowledge of appropriate communication behaviors, but also the motivation to engage in communication that results in mutual understanding.

Littlejohn and Jabusch (1982) contend that communication competency arises from four basic components: process understanding (i.e. knowledge), interpersonal sensitivity, communication skills, and ethical responsibility. They argue that competence results from the interaction of theory, practice, and analysis. The communication laboratory provides an appropriate setting for this interaction to occur. With the help of laboratory staff and appropriate technology (e.g., videotape, interactive computer software) students have the opportunity to apply theories they learn in class, to practice crucial communication skills and to analyze and evaluate their performance. Students are also provided the opportunity to repeat the theory-practice-analysis cycle and thereby, increase their communication competency.

Communication laboratories enhance our ability to deal with apprehension, to provide direct support to students with specific needs, to create active learning environments, and to integrate technology into the curriculum. Laboratories also assist institutions in responding to institutional goals such as the development of critical thinking and provide diverse opportunities for teaching, research, and service. Finally, laboratories can help assess the progress of students.

COMMUNICATION LABORATORY CURRICULA AND APPROACHES

Enhancement of Communication Courses

Although communication laboratories use a variety of curricula and approaches, most laboratories are developed to provide direct support for communication courses. The courses most frequently supported by laboratories are public speaking, basic fundamentals courses (often referred to as hybrid courses), interpersonal communication courses, small group communication courses, debate, and organizational communication courses.

In some colleges, public speaking students are required to visit the laboratory to complete computerized assessment, to receive one-on-one coaching prior to each speech, to view their videotaped in-class speeches, to receive individualized feedback on speeches, and/or to set and report goals in regard to their skill development. Students in fundamentals courses or interpersonal communication courses have assignments to complete experiential learning exercises within the laboratory, to participate in learning groups that meet regularly, and/or to set and report goals in various interpersonal communication areas such as listening or conflict management. Students in small group communication courses have assignments to view and evaluate their performance in videotaped in-class group discussions and to discuss their group's development. Students in organizational communication classes are required to visit the lab to participate in videotaped mock job interviews followed by assisted viewing and feedback sessions with trained graduate teaching assistants. They also come to the lab to learn presentational software programs and to create and receive feedback on visual aids for in-class business presentations. Experiences in technologically enhanced laboratories are increasingly focusing on international and intercultural communication, requiring students to interact with other students of different ethnic national and racial backgrounds on their own campus, from various regions of the United States and, at times, throughout the world. Through the Internet and Web communication

laboratories increasingly are being linked between universities as well as across great geographic distances.

Communication Across the Curriculum

Some laboratories are used in communication-across-the-curriculum (CXC) efforts or in support of courses other than those in the communication discipline. Communication laboratories often provide communication workshops on a variety of topics such as conflict management, assertiveness, interviewing, and listening; coaching, video support, and feedback on individual and group student presentations in a variety of noncommunication classes; and communication-across-the-curriculum presentations where laboratory staff and/or graduate students trained in the laboratory provide communication modules to a variety of other courses. These activities are often coupled with an in-lab assignment such as required coaching prior to class presentations, obtaining help with the organization of group presentations, and/or viewing and evaluating in-class presentations with the assistance of laboratory personnel. In some laboratories, staff train non-communication faculty to deliver communication-based modules in their own classes.

Delivery of Services

Laboratories use a variety of pedagogical methods or approaches to deliver their services, including videotape and playback equipment; individualized assistance programs regarding communication topics such as listening, interviewing, outlining, speech preparation, communication apprehension, internet research, and presentational software such as Power Point; campus-wide workshops; self-paced interactive instructional modules; assessment tools that evaluate communication skills and dispositions; and communication resources such as books, videotapes, and audiotapes (Morreale, 1998).

DEVELOPMENT STRATEGIES FOR COMMUNICATION LABORATORIES

Vision, Mission, and Goals

Developmental strategies need to be carefully considered in the planning and implementation of each communication laboratory. The most important strategy may be the establishment of a vision, mission, and set of goals for the communication laboratory. Because of limited funding, a communication laboratory cannot provide all possible services needed on a college campus.

Several questions need to be addressed. What conceptualization of communication competency is most critical for students on a particular campus? What conceptualization can be supported by the faculty with the curricula offered? How will the needs of the campus be assessed? This determination is key in establishing a cohesive set of curricula, programs, and activities. It is really assessing the balance of what needs to occur in the laboratory and given the funding, what opportunities can become available to meet campus needs.

At the University of Colorado at Colorado Springs, one method used to establish the vision, mission, and goals for their communication laboratory was a needs assessment to determine (a) the skills and competencies of the ideal student and (b) the skills and competencies most in need of academic support. A survey of faculty, staff and students across the campus identified the top three communication characteristics of the ideal student as (a) organized expression of complete thought, (b) good presentation skills, and (c) classroom assertiveness and participation. The three skills found most in need of academic support were (a) expressing ideas clearly, (b) organizing messages so that others can understand them, and (c) expressing ideas concisely (Morreale, Hackman, Shockley-Zalabak, & Gomez,

1991). These assessment survey results were guiding factors in planning the communication laboratory programs.

Organizational Structure

A second development strategy is to focus on the organizational structure of the lab. Several questions must be answered in terms of linkage to the communication department. Is the communication department going to oversee the laboratory, or will the lab be housed in other administrative units? Is the laboratory going to provide curricular support only within the communication department? If so, how are courses to be identified? How available will the communication laboratory be for courses? If the laboratory services are extended across the curriculum, what priorities will be set for inclusion of courses from other disciplines?

Location, Equipment, Budget

Other key strategies in laboratory development include assessing and establishing the physical location of the lab, identifying the laboratory equipment to help the laboratory accomplish its goals, and establishing a laboratory budget. Laboratories are typically equipped with video equipment, playback equipment, microphones, computers, internet access, presentational software, flipcharts and books. These equipment choices should be guided by the goals and pedagogical strategies that the faculty and staff in the laboratory find to be needed and appropriate. Establishing a timetable for equipment purchases, maintenance, and replacement is also important.

Because the needs generally exceed what can be delivered, establishing a budget and ascertaining the extent to which the vision, mission, and goals can be met within that budget is another critical component of the development process.

Evaluation Procedures

Another development strategy is to determine the type of assessment and accountability strategies. Increasingly, universities and colleges are mandated to be more accountable to students, parents, governing bodies, state legislatures, and the public in general. In its development stages the communication laboratory has an opportunity to build in an evaluation component that not only demonstrates accountability of this pedagogical approach to external constituencies, but also provides valuable information for continuous redirection or improvements of efforts. On-going assessment is an important ingredient in creating excellence in any kind of academic program.

Leadership and Staffing

Planning for leadership and staffing of the lab also requires a crucial development strategy. Competent and well-trained leadership and staff are absolutely crucial to the laboratory's success. Who will be chosen to provide the day-to-day direction of the activities? What is the desired background of this person? Laboratories are usually led by communication faculty and increasingly by personnel with Ph.D. training, providing close linkages between the laboratory and the communication department. Such appointments help to ensure that laboratories are led by professionals with adequate pedagogical preparation and knowledge of disciplinary perspectives.

In dealing with issues of staffing, a number of additional issues must be addressed. Are graduate teaching assistants available? Is working in the laboratory part of their preparation during their graduate program? If undergraduates are used for peer tutoring or coaching in a variety of presentation situations, how will they be trained, and what criteria should be used in their selection? What kind of ongoing training will be required for all laboratory staff to maintain a consistent level of excellence? Who is going to develop and engage in

that training, and how will we ensure that the training provided is quality training? These issues must be carefully considered during the planning and development phase of the laboratory.

Campus Awareness

A final development strategy involves educating the entire campus community in regard to the mission and services of the lab. Users must also know what the laboratory does not do and cannot effectively be expected to do.

ASSESSMENT, ACCOUNTABILITY, AND RESEARCH OPPORTUNITIES

Once the plans have been developed and delivery of services has begun, it is time to begin implementation of assessment and accountability plans. Communication laboratories provide excellent opportunities for gathering information for assessment and accountability as well as information to guide the modification of curricula and programs delivered by the laboratory and within communication departments.

Demonstrating Accountability

Assessment and accountability strategies vary greatly across laboratories throughout the country. We will describe the program of assessment and accountability at the University of Colorado at Colorado Springs. Since its founding in 1988, the laboratory has engaged in continuous assessment. Each semester all public speaking and interpersonal communication students participate in entrance and exit interviews which include computerized pre- and post-testing. Public speaking students take McCroskey's (1978) Personal Report of Communication Apprehension (PRCA-24) and Rosenberg's (1965) Self-Esteem Scale (RSE). Interpersonal communication students evaluate themselves on McCroskey and Richmond's (1987) Willingness to Communicate Scale (WTC), Rosenberg's (1965) Self-Esteem Scale (RSE), and the Communication Behaviors Inventory (CBI) (Morley, Morreale, & Naylor, 1994). Each year results of t-tests for repeated measures consistently document significant gains in almost all areas tested (***Project EXCEL Annual Reports***, 1989-1999). Data are also analyzed across gender and ethnicity lines.

Redirecting Pedagogy

Laboratories provide not only an opportunity to demonstrate accountability to external constituencies, but also opportunities to conduct research to direct and/or redirect pedagogy. For example, Ellis (1998) tracked self-perceived public speaking competency and public speaking anxiety of 74 public speaking students from their first day of class to one year following completion of a laboratory-supported public speaking course. Results of repeated measures ANOVAS indicated that students sustained improvement during the year following course completion. Analyses also identified overall patterns of change in both self-perceived competency and public speaking anxiety. In regard to public speaking competency, the results suggested that students mastered content skills more completely than delivery skills. In regard to public speaking anxiety, while students appeared to master control of thought processes that interfere with performance, they made less progress in learning to control bodily symptoms of anxiety. These results can be used to revise the course content to better address the needs of the university's public speaking students.

CHALLENGES

Despite an increase in the number of communication laboratories throughout the country and the documented value of their use to the discipline and college programs, many diffi-

cult pedagogical, leadership, and technology challenges must be faced by those involved in laboratory leadership.

One pedagogical challenge is defining communication competency in a manner that can be specifically articulated in the programs and practices of the laboratory. Another challenge is the very efficacy of integrating theory and practice in the laboratory for skill development. For example, the recent serious debate about the relative role of "nature" versus "nurture" (McCroskey & Beatty, 2000) calls into question whether skills can or cannot be improved. Other pedagogical challenges include effective sequencing of learning activities and integrating telemediated communication into skill building in a laboratory setting.

One leadership challenge is providing sustained excellence in the direction and staffing of the laboratory, including ongoing training and staffing of graduate or undergraduate students to maintain quality programs and activities. Another leadership challenge is how to integrate the needed skill-building with other resources on the campus. Securing adequate funding is still another leadership challenge that is becoming more and more difficult as colleges and universities find themselves increasingly constrained. However, the ongoing evaluation of communication laboratories can provide the kind of argument for justifying continued funding in fiscally difficult times.

Finally, there are a number of technology challenges in operating a communication laboratory. How do we keep current with technology? How do we continually acquire and maintain state-of-the-art equipment and software? How do we keep our students and ourselves actively engaged in learning new technologies and interacting in new ways, particularly in telemediated environments?

GUIDING PRINCIPLES

There is a need for students to learn how to deal with increasingly complex communication experiences across college campuses and develop the skills and competencies required after graduation. The communication laboratory is one methodology to assist in meeting this pedagogical challenge.

Although laboratories differ, there are some basic principles for success that cut across various communication curricula, development strategies, assessment, accountability, research opportunities, and challenges. First, there must be a conceptual grounding in models of communication competency that resonates with the vision, mission, and goals of the communication program. Second, there must be close linkages not only to the communication department, but also to other disciplines served by the laboratory. Third, the laboratory must have a clear focus and mission, and be very supportive of the institutional mission. When departmental and institutional goals are aligned, the administration across the campus will see the value of the laboratory, not only to the communication department, but also to the broader institutional mission. For example, the communication laboratory at the University of Colorado at Colorado Springs is part of a constellation of learning centers (i.e., writing, oral communication, science, math, and foreign language) whose collective goal is to increase the excellence of undergraduate education in core curricular areas, provide support for at-risk students, and contribute to overall campus retention efforts. Statistical analysis has demonstrated that those students who use the learning centers receive higher grades and are retained at significantly higher rates than students who do not use the learning centers (***Project EXCEL Annual Reports***, 1989-1999). This finding speaks loudly to the efficacy of the laboratory setting as an important pedagogical strategy. Fourth, a good laboratory offers a range of programs and services that can effectively be delivered within the constraints of funding and staffing. Fifth, as with all successful programs, strong, committed leadership is necessary.

Finally, communication laboratories do not answer all of the active learning and skill-building challenges that communication departments face. Nonetheless, a communication laboratory is a valuable asset. The communication laboratory can provide a supportive environment where students can grow and develop in ways not possible in the regular classroom. They also provide a place where innovative learning strategies can be developed, implemented, and tested, and where assessment, accountability, and research opportunities flourish. The demonstrated strengths of communication laboratories make them an important pedagogical strategy for the 21st century.

REFERENCES AND NOTES

Kathleen Ellis, (Ph.D., University of Denver, 1998), is the former Co-Director of the Center for Excellence in Oral Communication at the University of Colorado at Colorado Springs, and is currently Assistant Professor of Communication at the University of Colorado at Colorado Springs, CO

Pamela S. Shockley-Zalabak, (Ph.D., University of Colorado, 1980) is Vice Chancellor for Student Success and Professor of Communication at the University of Colorado at Colorado Springs, CO

Michael Z. Hackman, (Ph.D., University of Denver, 1986) is Professor and Chair of the Communication Department at the University of Colorado at Colorado Springs.

Curtis, D. B., Winsor, J. L., & Stephens, R. D. (1989). National preferences in business and communication education. *Communication Education, 38,* 6-14.

Ellis, K. (1998). *Public speaking: A one-year longitudinal study of student change in self-perceived competency and public speaking anxiety.* Paper presented at the Western States Communication Association Convention, Denver, CO.

Engleberg, I. N., & Wynn, D. R. (1994). *DACUM: A national database justifying the study of speech communication.* A paper presented at the Eastern Communication Association Convention, Washington, D. C.

Harrell, T. W., & Harrell, M. S. (1984). Stanford MBA careers: A 20-year longitudinal study. Graduate School of Business Research Paper No. 723, Stanford, CA.

Littlejohn, S. W., & Jabusch, D. M. (1982). Communication competence: Model and application. *Journal of Applied Communication Research, 10,* 29-37.

Maes, J. D., Weldy, T. G., & Icenogle, M. L. (1997). Oral communication competency in the workplace. *Journal of Business Communication, 34,* 67-80.

McCroskey, J. C. (1978). Validity of the PRCA as an index of oral communication apprehension. *Communication Monographs, 45,* 192-203.

McCroskey, J. C., & Beatty, M. J. (2000). The communibiological perspective: Implications for communication in instruction. *Communication Education, 49,* 1-6.

McCroskey, J. C., & Richmond, V. P. (1987). Willingness to communicate. In J. C. McCroskey & J. A. Daly (Eds.), *Personality and interpersonal communication* (pp. 129-156). Newbury Park, CA: Sage.

Morley, D., Morreale, S., & Naylor, J. (1994). The CBI II: Additional developments in a lower bound estimator of communication competency. In R. Berko, S. Morreale, M. Brooks, and C. Cooke (Eds.), *Proceedings of SCA's Summer Conference on Assessing Collegiate Communication Competency,* (pp. 407-434). Annandale, VA: Speech Communication Association.

Morreale, S. P. (1998). Communication labs enhance student learning and promote awareness of the discipline. *Spectra, 34,* 7-8.

Morreale, S. P., Hackman, M. Z., Shockley-Zalabak, P., & Gomez, A. (1991). An innovative approach to teaching oral communication: The Center for Excellence in Oral Communication. *Education, 112*, 276-285.

Peterson, M. S. (1997). Personal interviewers' perceptions of the importance and adequacy of applicants' communication skills. *Communication Education, 46,* 287-291.

Project EXCEL Annual Reports. University of Colorado at Colorado Springs, 1989 through 1999.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rubin, R., & Graham, E. (1988). Correlates of college success. *Communication Education, 37,* 14-27.

Rubin, R., Graham, E., & Mignerey, J. (1990). A longitudinal study of college students' communication competence. *Communication Education, 39,* 1-13.

Whetten, D., & Cameron, K. S. (1993). *Developing management skills: Managing conflict* New York: Harper Collins.