

Assessing Communication Skill in a Business Context: Negotiating the Contradictions of Education, Training, and Management

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Abstract

Employers consistently name communication as one of the essential skills for success in a professional environment, and career success is frequently named as a benefit of taking communication courses. However, a lack of consistency in the definitions of communication used by researchers, employers, and business faculty hampers effective instruction and assessment of professional communication competence. The authors propose a theoretical model that explains the contradictory expectations across academic and professional contexts and provides a framework to develop assessment and instruction in a way that distinguishes between trainer, academic, and management perspectives. Assessment of professional communication must account for dynamic, complex behaviors that represent specific skills as well as strategic use of conceptual understanding performed within a specific context of organizational goals.

Introduction

Any survey of employers or recruiters will inevitably name “communication” as an essential skill in the workplace (Carnevale, Gainer, & Meltzer, 1990; Fisher, 1998; Gaut & Perrigo, 1998; Koncz & Collins, 2007; Maes, Weldy, & Icenogle, 1997; Secretary's Commission on Achieving Necessary Skills (SCANS), 1990). Business schools have long recognized the importance of communication instruction to professional success (Reinsch, 1996), and engineering, health, and design programs are increasingly including communication within the professional curriculum (Dannels, 2002, 2003; Lundgren & McMakin, 2004). Meanwhile, a communication “skills gap” continues to drive employers to provide additional training for their employees (Paradise & Homer, 2007).

With this substantial attention to professional communication skills, it would seem that clear learning objectives and assessment standards would be readily available. However, reviews of the published literature in the assessment of workplace communication skills have found this not to be the case (Cyphert, 2006; DiSalvo, 1980). Instead, a vast range of communication behaviors are named as important with virtually no concern for specific or operationalized definitions, explicit descriptions of acceptable skill levels, or assessment criteria. Further, studies that provide carefully detailed descriptions of the assessed communication seem to raise additional concerns about consistency. Employers who are reported as desiring conversational skills, for example, are described to mean everything from simple coding and decoding of basic English speech (Alexander, Penley, & Jernigan, 1992; Rush, Moe, & Storlie, 1986) to sophisticated, strategic use of discourse to achieve organizational and personal outcomes (Henry, 2000). It seems that while employers agree that communication is important, educators have very little information about what employers *mean* by communication. Educators seem to have no inventory of the communication knowledge and skills that are needed for competence in professional settings.

The sheer range of elements that can be considered as part of communication competence suggests that creating consistent definitions of professional communication skills is an important first step toward developing appropriate curricula, instructional methods, or assessment instruments (Cyphert, 2006). The range of communication goals and competencies studied in the workplace extends across multiple industries, the full scope of career stages, and contexts from corporate office to production line. Further, communication competence seems to be defined in a different way by each investigator. Targeted behaviors range across every step in the communication process, from recognizing and analyzing an audience, through choosing or using a communication channel, to anticipating audience responses to a message. Any one researcher might choose to focus on just a few of the elements of the communication process, a specific professional context, some subset of communication goals and strategies, or a targeted set of communication behaviors, and the range of variations in the research is large:

- **skills context:** The professional or organizational context in which the communication occurs, and presumably the source of any assumptions of communication goal as well as standards of competence.
- **targeted communicators:** The subset of professionals within the context whose communication is being assessed. In general, distinctions are made between labor or management status, tenure in the job, or professional functions being performed by the communicators.
- **communication evaluators:** The status, role, or professional preparation of the assessors.
- **strategic goals:** The short or long term goals of the communicators, generally as defined for all those who function within the named context.
- **behavioral objectives:** Specific targeted communication behaviors on the part of the communicators.
- **communication competencies:** Where specific communication competencies are defined, they can be categorized as one of four general types of competence:
 - *knowledge/information* of specific communication practices, resources, or content material
 - *mental skill/capacity* to perform specific communication behaviors
 - *attitude/value* that supports or motivates targeted communication behaviors or practices
 - *performance/behavior* that is observed by assessors
- **standards of performance:** The specific level of competence desired in the stated context
- **measures of performance:** The tools, observations, assessment instruments used
- **evaluation methods:** The methodology used in the study to determine performance
- **corrective actions:** Any training, education, coaching or other action taken in the professional context as a consequence of incompetent communication.

The diversity of communication behaviors that employers and academics can value is no real surprise, nor is the potential for contradictions in what might be considered competent communication. Comparisons of communication skill and workplace requirements have long demonstrated a mismatch between the taxonomies of communication skill. As early as 1978, Michael Hanna noted the tendency of researchers to set up categories they believe to be important and ask members of the business community to pass judgment on only those elements of communication. While such studies might support an author's immediate objectives, they provide little foundation on which to build a generalizable understanding of professional communication competence—a fundamental requirement for its assessment.

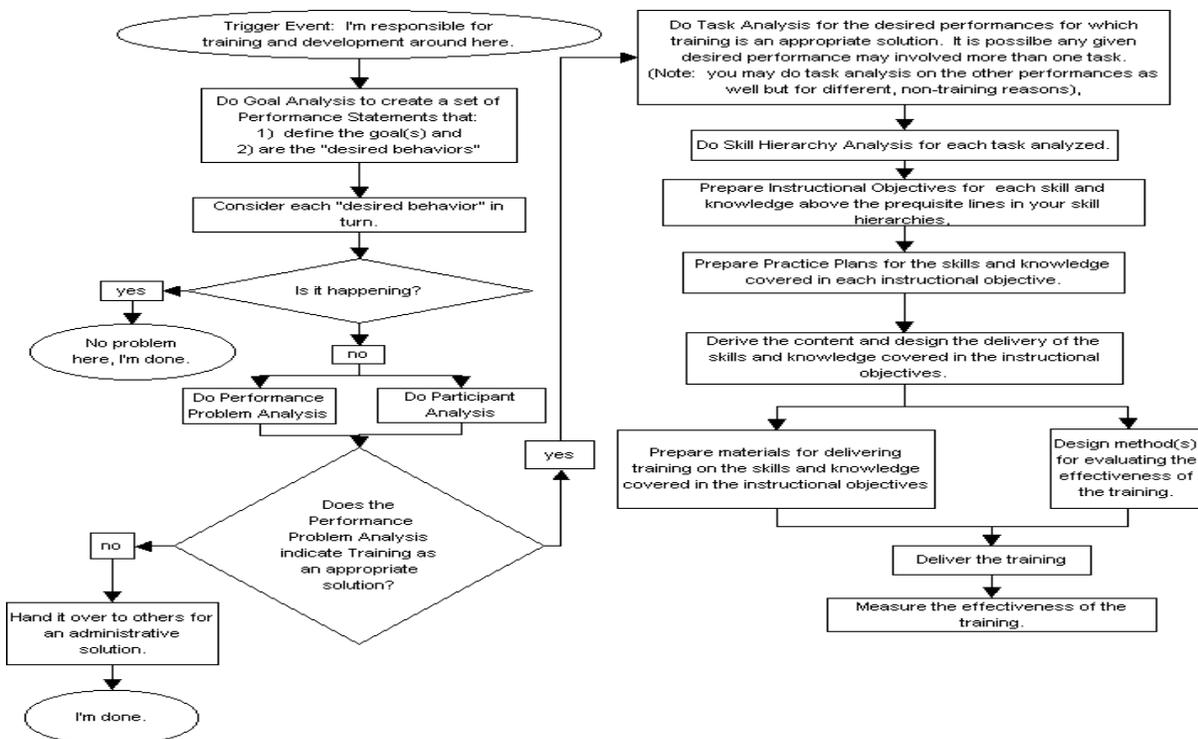
Multiple Perspectives on Workplace Communication

Analysis suggests that the disparate goals and conceptualizations actually represent three distinctive perspectives for approaching communication in professional settings. The authors argue that meaningful assessment requires a model of competence that distinguishes between the dissimilar assumptions and goals of training and development specialists, academic communication educators, and organizational managers. The authors conclude that communication for professional purposes is best addressed as an interactive system of context-specific skills, cultural/rhetorical norms, and strategic goals of organizational management.

The Training Perspective

Workplace training is generally understood as “all the learning experiences provided to employees to bring about changes in behavior that promote the attainment of the goals and objectives of the organization” (Tracey, 1992, p. 1) and can range, in practice, from on-the-job instruction and coaching to stand-alone classroom training on a specific topic or process to continuing educational opportunities for employees. Instruction can be provided for employees at all levels of an organization and on topics ranging from job-specific techniques to personal development issues. Regardless of the occasion, participants, or topic, workplace training is conceived of as a problem-solving process (see Figure 1). Training should not happen unless an immediate or future need for training can be defined in terms of specific “job relevant” learning experiences that are “directly and explicitly related to the jobs, duties, and tasks they will be required to perform in their assignments” (Tracey, 1992, p. 91).

Figure 1: The Training and Development Process (Wurtz, 2004)



From this perspective, employee communication skills should be defined in terms of the specific communicative abilities or behaviors that will allow an individual to perform the tasks and duties of his or her job. Employees are trained toward concrete “job performance measures” that clearly specify the desired behavior, the conditions under which it is to be performed, and the level of performance that will be considered satisfactory (Tracey, 1992, p. 141). Further, the objective evaluation of skills is part of the training process, and training objectives, training lessons, and evaluation are necessarily framed in terms of observable and measurable behaviors. Such learning objectives as “a working knowledge of...” or “an understanding and appreciation of” are deemed too “imprecise” to be useful as training objectives (p. 196).

An Academic Perspective

Communication education from the academic perspective is more heavily focused on the understanding of principles and strategic options than on the ability to perform the specific behaviors themselves. Taking the competency standards developed by the National Communication Association as a template, communication skill within the academic context is described in terms of awareness, responsibility, and appropriateness. The purpose of communication competence is “effective functioning in society and in the workplace,” but competence itself can only be measured in terms of effectiveness and appropriateness as determined “(a) by the audience, (b) in the context enacted, and (c) for the purpose specified” (Morreale, Rubin, & Jones, 1998). Given the impossibility of defining every conceivable context in which a student might ultimately operate, the academic model thus focuses on the choices that would be made across a wide range of situations and purposes (e.g. Morreale et al., 1998).

Comparing the Training and the Academic Perspectives

Both trainers and educators prepare and deliver learning opportunities for their trainees/students and measure the degree of learning of their trainees/students. But the standards for success and the reporting responsibilities are different (Table 1). In training, the desired outcomes are behaviors that the trainees will be able to exhibit because of the training, and the target behaviors are defined on the basis of organizational needs. Further, those needs define a relatively narrow training target. Delivered training is a pass/fail proposition with an expectation that training will continue until there is success. There will be no failure. Further, there is no reason to train for an outcome of behavior that exceeds the organization’s needs. Any over-achievement is a waste of organizational resources. In contrast, academic educators understand that different students will achieve different levels of success. The educator assesses each student’s degree of success and creates a record of it (i.e. assigns grades), but the educational goal is inherently open-ended. More learning is always valued, even when it extends beyond the stated curriculum.

Table 1: Comparison of Training and Education by Content, Standards, and Activities

	Communication Training	Communication Education
Content	Learning to do the behaviors that must occur in order for the employee to do the work and achieve the results desired by the organization	Learning to understand the theoretical concepts and principles for choosing behaviors across a variety of contexts
Standards	100% pass (and nothing beyond that)	Most will achieve average success; some will be above average, some will be below average; a few will excel in an outstanding way, a few will fail to achieve any significant degree of understanding at all
Trainer/Educator Activities	Prepare and deliver the instruction; Measure success of the program; Report the success of the program	Prepare and deliver the instruction; measure students' learning; Maintain a record each individual student's success in learning

An Organizational Managerial Perspective

A third framework views communication processes in terms of their capacity to preserve the organization as an entity or to further the organization's mission. Both management as an academic discipline and professional management practice are concerned with "the attainment of organizational goals in an effective and efficient manner (Daft & Marcic, 2004). This classical perspective assumes management will value a wide variety of activities, including communication, that allow goals to be met. Professional communication in this context is that which enables management to plan, organize, lead, and control.

Comparing the Academic and Management Perspectives

From a management perspective, communication is merely a tool (albeit an important one) for meeting goals, but specific behaviors are seldom prescribed. The traditional management elements provide a framework that highlights some inherent contradictions between managerial and academic perspectives of communication skill.

Throughout the management framework, communication is understood primarily as an organizational function. To be sure, supervisors communicate with individual workers and with the team as a whole. Individual workers communicate with each other one-on-one and in groups. An individual's communication performance might be appraised, and certainly managers voice their support for employees with communication skill. However, in practical terms, most communication behaviors are embedded within the structures, policies, and processes of an organization. Communication is a composite of activities, and it is their interaction and combined effort that constitute organizational management. While it is normal in the educational environment to focus on the development of generalizable skills that an individual might carry from one context to another, the management perspective is considerably more comprehensive, adding the notion of communication as an embedded, contextualized, and sometimes even collaborative set of interactions among actors within a larger system.

Table 2: Comparison of Managerial and Academic Perspectives of Communication Skill

Planning- Information gathering is key; to the extent that planning is a group activity, team communication and meeting facilitation skills are useful.	Information gathering is viewed as a preliminary step to message creation; team meeting facilitation is based on an understanding of group dynamics and member roles.
Organizing- The effective organization of work takes into account the communication practices and resources available.	A focus on individual communication knowledge or behaviors precludes attention to communication mechanisms except as a specialized field of study.
Commanding- Clear, complete communication of work responsibilities; style can range from authoritarian to egalitarian with success generally attributed to a match between manager and organizational styles.	Egalitarian, respectful, invitational styles is commonly taught as both effective and desirable in all contexts
Coordinating- Ongoing communication regarding resources, schedules, work assignments may involve communication along the chain of command, but managers must also facilitate lateral and informal communication.	Focus on formal communication contexts can divert attention from informal, fragmented coordination behaviors; facilitation of others' communication is limited to group decision-making or meeting contexts.
Controlling- Specific, reliable communication of key metrics from workers allows managers to ensure work was performed as planned	Feedback is considered an automatic consequence of communication that need not be explicitly taught

Comparing the Training and Management Perspectives

To complete the picture, the authors also contrast the different goals and approaches that distinguish training and managerial perspectives. Management, focused on the achievement of stated goals, views communication as one of many tools, skills, or aptitudes that might serve to accomplish them. Training, with the objective of developing facility with a specific targeted behavior or competency, is focused on the communication skill itself. Managers and trainers would necessarily work together to determine which communication skills might be likely to result in desired outcomes, their priorities diverge over the course of the training process. Ideally, they come together again at the point of assessment, allowing the trainer some confidence in pronouncing a trainee capable of reaching the desired goals.

Whereas the training function can be viewed as a support function, delivering knowledgeable, skilled employees to meet management goals, the transitional steps from one to the other present numerous opportunities for discrepant aims. To the extent that managers and trainers agree on the correct competencies or behaviors as contributors to organizational goals, these efforts will coincide. There is potential for error, however, in the initial determination of the requisite skills or the level of skill required. There is potential for error in the determining whether poor performance is due to a lack of training. There is potential that other factors will influence actual job performance regardless of skill level. Even in cases where trainer and manager are in complete agreement regarding the assessment of a specific communication skill, there is no guarantee that the trainer's performance goal will actually meet the manager's organizational goal.

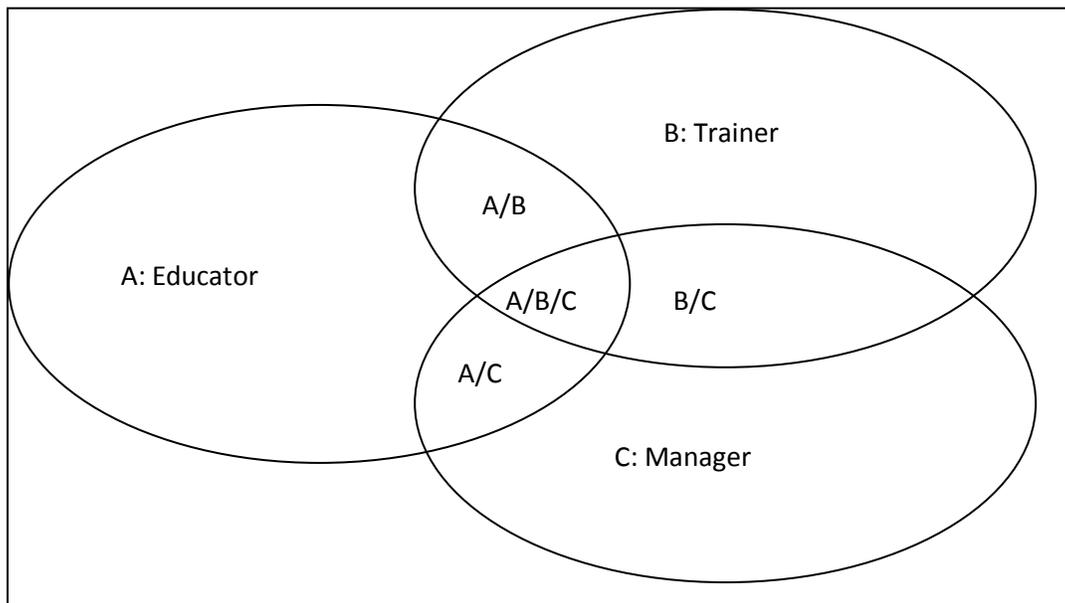
Table 3: Comparison of Training and Management Process Steps

Training Process	Management Process	Potential Inconsistencies
	Organizational goals, outcomes are determined	Consistency requires a valid causal link between failure and lack of knowledge, skills, or attitudes that can be addressed with training.
Trigger event: a need for some training intervention is identified.		
Determine desired performance standards for target skills.		
Develop trainees to targeted levels.		
Measure effectiveness of training and designated those ready to perform.		Consistency requires a valid causal link between management objectives and a targeted communication behavior.
	Assess trainees' job competence.	

Integrating Three Assessment Frameworks

A Venn diagram can be used to outline the interrelationships among the three frameworks and highlights the areas that are likely to be problematic for those who aim to improve communication competence in the professional workplace.

Figure 2: Overlapping Frameworks of Educators, Trainers, and Managers



While each perspective frames professional communication assessment differently, each also shares some commonalities with the others. The resulting overlaps can guide us toward a framework that might allow the integration of what appear to be contradictory goals and processes into a coherent picture of the assessment landscape.

Within the conceptual space (A/B), both trainers and educators understand the theoretical concepts and principles of the communications behaviors, their students are skilled in performing those behaviors, but the behaviors might have no direct link to the organization's success in achieving its mission. To the extent that managers focus on the overall outcome without a nuanced conceptual foundation of communication as a factor in achieving those outcomes, there can be a tendency to collapse communication skill into a single, undifferentiated category. The manager is then able to appraise employees as lacking a holistically framed quality of communication skill, even though the employees are, in fact, knowledgeable and even well-skilled in specific sets of communication behaviors.

The area (A/C) represents the conceptual space in which educators and managers share an appreciation for the employee's ability to select from a range of strategic options, recognizing that carefully defined behaviors might be appropriate in one context but wildly inappropriate in others. Both perspectives appreciate the difficulty in determining a targeted set of behaviors that can be learned apart from rules about when and where to perform them.

A conceptual space (B/C) describes the trainers and managers who share a common focus on developing employees who are skilled in carrying out the communication behaviors that have been deemed relevant or effective within a specific organizational context, but do so without understanding the theoretical concepts and principles that support those behaviors. Such a situation can result in employees who perform effective communication, but act on the basis of intuition or plain good luck, rather than on any underlying understanding that the communication behavior matches organizational needs. While there might be few management complaints about deficiencies in employees' skills, sustained effectiveness of the employee or the organization could be at risk. Intuition and luck do not allow an employee to replicate behavior or strategically design predictably successful communication. The danger is that behaviors valued by management on the basis of previous success will lack effectiveness as contexts and conditions change.

This leaves a conceptual space (A/B/C) that might be understood as an optimal set of circumstances where training, educational, and managerial perspectives coincide. Organizational management imperatives determine what communication is strategically valuable, academic understanding of theoretical concepts and principles for choosing behaviors tells us which communications behaviors are needed to support those outcomes (and why), and the training creates the ability to engage in the communications behaviors that are needed to support the desired organizational outcomes. It is only when all three perspectives judge a particular communication behavior to be effective that all could agree on assessment standards for communication skills.

An Integrated Assessment Model

The overlay of three assessment perspectives demonstrates several significant areas of concern for communication skills education at the university level, and suggests the reasons that assessment of professional communication skills appears to be such a difficult task. Contradictory expectations can be harmonized with a framework that distinguishes between training, academic, and management perspectives (Table 4), suggesting that communication for professional purposes might be best addressed

as an interactive system of context-specific skill, cultural/rhetorical norms, and organizational management that extends along a lifespan of communication learning.

By framing the context as a potential combination of all three perspectives, it becomes possible to understand differences in goals and assumptions. Each of the frameworks assumes a different instructional objective, with the result that evaluation of outcomes might be contradictory. Academic lists of curriculum components, for example, name knowledge or information as components of communication competence, while trainers and tend to focus on specific performances and behaviors and managers' concern lies with the communication choices made in responses to various kinds of contextual prompts.

Any attempt to define or develop communication competence in a workplace setting will require the careful explication of goals and assumptions on the part of those involved. When educators, trainers, and management are involved, contradictory perspectives are inherent. On the other hand, the overlaps among these different frameworks suggest that there is common ground on which to build both understanding and effective communication pedagogy.

This analysis suggests that the apparent discrepancies among studies of communication needs in the workplace reflect the differing goals and assumptions of three distinct frameworks for approaching the problem of developing workplace communication competence. A design for the assessment of communication in any context can benefit by taking into account the differences among academic, training, and management perspectives. In particular, an assessment will be more useful for all stakeholders if care is taken to identify and resolve their contradictory assumptions about the goals of the communication.

Research across seemingly unrelated communication contexts and competencies can be usefully examined in light of the integrated model of overlapping goals and assumptions developed in Table 4. Returning to the review of studies in professional communication (Cyphert, 2006), the first observation, of course, is that research was not framed within this integrated model or concerned with the tasks of the trainer, manager, or educator. Authors were simply attempting to determine the need for various communication skills, outcomes, or knowledge in a professional setting.

Of somewhat more concern are studies that seem to combine perspectives in contradictory ways. Leana and Van Buren (1999), for example, frame communication goals as learning the rules and norms of a bureaucracy, but the desired outcomes as a set of stable organizational relationships—something that requires a global managerial perspective that values the overall health of the organization over the immediate responsiveness of a communicator to the context. This might not be concern in a purely descriptive study. In fact, these authors validly argue on theoretical grounds that successfully meeting the short-term goals of normative and responsive communication behaviors will facilitate the achievement of longer range management goals. However, the conclusions pose a problem for those attempting to assess the communication competence involved, offering no direct link between specific normative behaviors and an observable, long term outcome. Nor is there an obvious way to measure organizational relationships in terms of the precursor communication competencies. Similarly, Jones (1996) offers both knowledge of customer services strategies and the ability to meet an organization's norms of communication and supervisory techniques as communication goals, but discusses standards only in terms of having access to a large range of potential choices. Without specifying concrete training or management standards, any assessment in those areas would be problematic.

Table 4: An Integrated Model of Communication Development

	Academic Perspective	Training Perspective	Management Perspective	
Content	Learning to understand the theoretical concepts and principles for choosing behaviors	Learning to do the behaviors that must occur in order for the employee to do the work and achieve the results desired by the organization	Learning to apply behaviors that complete the management cycle of setting and reaching goals, documenting and evaluating the results, and repairing the system as needed to accomplish the original or revised goals	
	Capability of individuals within a dynamic system. Education is aiming to prepare individuals to flexibly adapt to changing rules or expectations of a system that is subject to change.	Capability of individuals within a static system. Instruction is aiming to train or socialize individuals to accomplish goals within the rules or expectations of a system not subject to change.	Capability of individuals to develop a static system. Instruction is aiming to facilitate the creation of goals, and to set the rules or expectations that will facilitate reaching those goals.	
Standards	Most will achieve average success, some above average, some below average; a few will excel, a few will fail to achieve any significant degree of understanding at all	100% pass (and nothing beyond that)	Success is measured in terms of goal accomplishment, regardless of steps taken	
	Performance standards and evaluation processes based on implicit conformity to normative values	performance standards and evaluation - processes an explicit part of the process,	Explicit correction of processes that do not accomplish goals, stepping “outside” the box of organizational expectations when the processes themselves do not allow individuals to act effectively.	
	Theoretical understanding of how or why choices might be made regarding the strategic use of a given communication behavior in a given context.	1) the success with which a communicator met the rhetorical norms of the business/workplace community		
		2) the ability to communicate on targeted topics		
		3) facility with genre requirements		
4) conformity to norms of specific communication modalities				
	5) competence with various communication technologies			
Trainer/ Manager/ Educator Tasks	Prepare and deliver the instruction	Prepare and deliver the instruction	Set direction and provide information to accomplish work	
	Measure students’ learning and record success	Measure success of the program	Monitor success of the system in reaching stated goals	

Implications

A complete professional communication pedagogy requires an appreciation for the goals and assumptions of management and workplace trainers as well as academic educators. Students in an educational institution must form a broad understanding of concepts and a range of skills that might be used across a still indeterminate future. The employee in the workplace is well served by a theoretical and strategic understanding of how and why a specific behavior might be selected, but is also held responsible for fluent, unstudied responsiveness to the context. Meanwhile, managerial processes place a premium on the outcome of those behaviors, regardless of the employee's self-reflection about the process or objective skill levels with respect to the task at hand. None of these goals is presumptively superior, and future research on professional communication competence in the academic curriculum, training processes, or the management of organizational communication processes should take all three into account.

When assessment of professional communication is the goal, the first questions that must be asked involve the purpose of the assessment. Because their overall goals are different, educators, trainers, and managers are generally interested in assessing very different things. The student in a course on interpersonal communication might be expected to list and describe a range of non-defensive responses, giving reasons to choose one or the other in various situations. The trainer's assessment of an employee who has completed training on customer responsiveness might observe his or her ability to articulate a non-defensive response to a (real or staged) customer complaint. Meanwhile, management will assess the employee on the effectiveness of his or her communication across a range of situations in meeting the goals of the organization, including some in which any non-defensive response might have been counterproductive. An unproductive client, for instance, might be one the company has been trying to lose, and the employee's ability to strategically use a defensive response to force the client to withdraw business might be assessed positively as an appropriate means to accomplish the company's business goals.

Since, in most cases, the educator, trainer, and manager are not coordinating their assessments, there is little gained in terms of actually improving professional communication competence. The subject is left wondering (as is the manager) why the company bothers with a training program that is such an obvious failure. The educator sees a fair correspondence with mediocre grades and the alumni's report of job failure, but has no specific information about the appropriateness of the curriculum or instructional methods. The educator in this instance cannot discover that the source of the job failure was not a lack of skill with performing non-defensive behaviors, but in judging the rhetorical context in which such behaviors might or might not be appropriately used. Meanwhile, the trainer (if still employed by the company) probably assumes that management is offering poor supervision or inadequate employee assessments since there is clear, objective proof that the targeted communication behaviors had been mastered.

The conflicting goals of each framework are inherent in the career stages at which education, training, or supervision is being delivered and assessed. Educators anticipate the range of situations students will face, offering generalized knowledge and a range of skills. As they seek validation for their efforts, however, they must use caution in how they determine appropriate performance standards and outcome measures. It is true enough to say that communication skill is a necessary foundation for organizational success, but assessing that foundation can never be so simple. Communication skill can be defined in multiple ways,

depending on the context and the organizational goals, and the competent use of a communication skill in context comes with experience and sensitivity to the nuanced complexities of the rhetorical situation.

References

- Alexander, E. R. I., Penley, L. E., & Jernigan, I. E. (1992). The relationship of basic decoding skills to managerial effectiveness. *Management Communication Quarterly*, 6, 58-73.
- Carnevale, A. P., Gainer, L. J., & Meltzer, A. S. (1990). *Workplace basics: The skills employers want*. Washington, DC: The American Society for Training and Development and the U. S. Department of Labor, Employment and Training Administration.
- Cyphert, D. (2006). *Translating expectations of communication skill: What do employers mean?* Paper presented at the National Communication Association, San Antonio.
- Dannels, D. P. (2002). Communication across the curriculum and in the disciplines: Speaking in engineering. *Communication Education*, 51(3), 254-268.
- Dannels, D. P. (2003). Teaching and learning design presentations in engineering: Contradictions between academic and workplace activity systems. *Journal of Business and Technical Communication*, 17(2), 139-169.
- DiSalvo, V. (1980). A summary of current research identifying communication skills in various organizational contexts. *Communication Education*, 29, 283-290.
- Fisher, A. (1998, 7 Dec). The high cost of living and not writing well. *Fortune*, 138, 244.
- Gaut, D. R., & Perrigo, E. M. (1998). *Business and professional communication for the 21st century*. Needham Heights, MA: Allyn & Bacon.
- Hanna, M. S. (1978). Speech communication training needs in the business community. *Central States Speech Journal*, 29, 163-172.
- Henry, J. (2000). *Writing workplace cultures: An archeology of professional writing*. Carbondale: Southern Illinois University Press.
- Jones, C. M. (1996). The definition of basic skills in manufacturing industries. *Adult Basic Education*, 6(1), 41-49.
- Koncz, A., & Collins, M. (2007). *Employers cite communication skills, honesty/integrity as key for job candidates* (press release). Bethlehem, PA: National Association of Colleges and Employers.
- Leana, C. R., & Harry J. VanBuren, I. (1999). Organizational social capital and employment practices. *Academy of Management Review*, 24(3), 538-555.
- Lundgren, R. E., & McMakin, A. H. (2004). *Risk communication: a handbook for communicating environmental, safety, and health risks*. Columbus: Battelle Press.

- Maes, J. D., Weldy, T. G., & Icenogle, M. L. (1997). A managerial perspective: Oral communication competency is most important for business students in the workplace. *The Journal of Business Communication*, 34(1), 67-80.
- Morreale, S., Rubin, R. B., & Jones, E. (1998). *Speaking and listening competencies for college students: Expected student outcomes for speaking and listening: Basic communication course and general education [and] expectations for speaking and listening for college graduates: Basic and advanced skills*. Washington, DC: The National Communication Association.
- Paradise, A., & Homer, J. (2007). *ASTD research update*. Paper presented at the ASTD International Conference & Exposition, San Diego.
- Reinsch, L. N. J. (1996). Business communication: Present, past, and future. *Management Communication Quarterly*, 10(1), 27-50.
- Rush, R. T., Moe, A. J., & Storlie, R. L. (1986). *Occupational literacy education*. Newark, DE: International Reading Association.
- Secretary's Commission on Achieving Necessary Skills (SCANS). (1990). *Skills and tasks for jobs: Executive summary*. Washington: U.S. Department of Labor.
- Tracey, W. R. (1992). *Designing training and development systems* (3rd ed.). New York: AMACOM American Management Association.
- Wurtz, M. S. (2004, Spring 2004). A summary of the processes and how they fit together. Retrieved 15 Mar, 2004, from <http://www.cba.uni.edu/wurtz/tdd>

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