The "Competent Group Communicator" is an assessment tool designed to evaluate the performance of individual members who participate in task-oriented small group discussions. This instrument is designed to be used to evaluate the performance of students enrolled in a small group communication course, as a course placement tool, as a pre- and posttest of student mastery of group communication competencies, or to assist academic institutions in determining the effectiveness of small group communication instruction in group communication courses. Support is provided for six task competencies and three relational group communication competencies. Task competencies are: (1) define the problem; (2) analyze the problem; (3) identify criteria; (4) generate solutions; (5) evaluate solutions or alternatives; and (6) maintain task focus. Relational competencies are: (7) manage conflict; (8) maintain a supportive climate; and (9) manage group interaction. Besides these two groups of competencies, there is a 10th general evaluation of overall problem-solving competency. Pedagogical and research support for these individual competencies is provided, along with criteria for assessing student performance of each competency as either excellent, adequate, inadequate, or not used. A discussion of how the instrument was developed and a report of on-going validity and reliability tests are presented. This paper extends previous work by identifying a new format for assessing the problem-solving competency of members of a small group and incorporates the most recent efforts to develop a valid and reliable tool to assess small group communication problem solving. (Contains 2 tables, 2 evaluation forms and 76 references. A pilot test is appended.) (Author/CR)
The Competent Group Communicator: Assessing Essential Competencies of Small Group Problem Solving

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Abstract

The Competent Group Communicator is an assessment tool designed to evaluate the performance of individual members who participate in task-oriented small group discussions. This instrument is designed to be used to evaluate the performance of students enrolled in a small group communication course, as a course placement tool, as a pre- and post-test of student mastery of group communication competencies, or to assist academic institutions determine the effectiveness of small group communication instruction in group communication courses. Support for six task competencies and three relational group communication competencies is provided. Task competencies are: (1) define the problem, (2) analyze the problem, (3) identify criteria, (4) generate solutions or alternatives, (5) evaluate solutions or alternatives, and (6) maintain task focus. Relational competencies are: (7) manage conflict, (8) maintain a supportive climate, and (9) manage group interaction. Their is a tenth general evaluation of overall problem-solving competency. Pedagogical and research support for these nine individual competencies is provided along with criteria for assessing student performance of each competency as either excellent, adequate, inadequate, or not used. A discussion of how the instrument was developed and a report of on-going validity and reliability tests are presented. An earlier version of this paper was presented at the 1994 Speech Communication Association Summer Conference on Communication Assessment. This paper extends our previous work by identifying a new format for assessing the problem-solving competency of members of a small group and incorporates our most recent efforts to develop a valid and reliable tool to assess small group communication problem solving.
The Competent Group Communicator: Assessing Essential Competencies of Small Group Problem Solving

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Communicating in small groups has long been valued as an important skill. In ancient Greece Socrates used the dialectical skill of using questions to search for truth, a systematic process which served as the foundation for today's college-level courses in small group communication. We continue to teach students how to seek answers to questions, solve problems and make decisions in small groups. Group communication skills are increasingly held in high esteem as corporate quality improvement programs, employee involvement efforts, and teamwork all hinge on individuals effectively communicating in small groups (Scholtes, 1988). The ubiquitous group meetings remain one of the most popular formats for making decisions and solving problems (Mosvick & Nelson, 1987). Yet, despite the unchallenged value of group deliberations, there have been few systematic efforts to identify and assess the key competencies of working in groups.

This paper presents a description of the on-going development and methods used to assess small group communication competence. The method for developing this instrument were modeled after the successful procedures used by the Speech Communication Association’s (SCA) Committee on Assessment and Testing’s (CAT) approach to assessing public speaking called The Competent Speaker (Morreale, Moore, Taylor, Surges-Tatum, & Hulbert-Johnson, 1992). We organized our efforts to develop an instrument following these five steps: (1) identify the purpose of the instrument, (2) identify small group communication competencies, (3) identify criteria for assessing the competencies, (4) develop the instrument, and (5) test the instrument. The instrument reported here is in the process of development; this is not a final report. This paper describes the on-going efforts to develop and test a valid and reliable instrument to assess small group communication competencies. An earlier version of this paper was presented at the 1994 Speech Communication Association Summer Conference on Communication Assessment. This paper extends our previous work by identifying a new format for
assessing the problem-solving competency of members of a small group and includes our most recent efforts to develop a valid and reliable tool to assess small group communication problem solving.

Instrument Purpose

The Competent Group Communicator evaluation form (1995) on page 29 is designed to provide a valid and reliable tool to assess performance in a small group problem-solving or decision-making discussion. There are many purposes for group deliberation (e.g. therapy groups, study groups, decision-making groups). This instrument is designed to assess individual group member competency in task-oriented discussions in which there is a problem to solve or a decision to make. Most small group communication research has investigated group problem solving or decision making (Frey 1988). This instrument is primarily designed to assist educators evaluate student performance in small group discussions as typically taught in group communication courses presented in North America. The instrument focuses on assessing behaviors rather than knowledge about small group communication or motivation to participate in a group discussion. We agree with Hay (1994), when she calls for “alternative assessment” measures; these are measures which are grounded in the competencies we teach in our classrooms and assessed by observing students perform the behaviors.

The instrument described here may have several applications: It may help educators (1) evaluate student performance in problem-solving and decision-making groups discussions in classes; (2) assess student’s skill thus serving as a placement tool for participating in group discussions, (3) measure pre- and post-test student mastery of small group communication behaviors taught in a small group communication course, and (4) generate assessment data which could help academic institutions determine the effectiveness of small group communication instruction and student mastery of group communication skills. While it is primarily designed to assess student performance in academic settings, it could also be used in corporate training and development programs; teamwork and group problem-solving and decision-making ability remain valued skills in organizations.

Identifying Small Group Communication Competencies

Several scholars have sought to develop competencies and assessment tools for specific communication contexts, of which public speaking and interpersonal communication appear to be the most popular (Rubin, 1984). While a multitude of
instruments have been designed to assess various group outcomes or a specific group member’s behavior (e.g., McCroskey & Wright, 1971; Kaplan & Greenbaum, 1989; Leathers, 1969; Greenbaum, Kaplan, & Damiano, 1991), there have been comparatively few systematic efforts to identify and assess small group communication competencies which would lead to the construction of an assessment instrument. CAT (Morreale, Moore, Taylor, Surges-Tatum, Hulbert-Johnson, 1992) specifically identifies small group communication as one of the contexts for identifying competencies: “As a minimum, assessment should occur in the one-to-many setting (e.g., public speaking, practical small group discussions...)

We reviewed three bodies of work and discussed our work with group communication educators as we sought to identify small group communication competencies. First, we reviewed the leading college-level textbooks identified through a survey conducted by Warnamunde (1986) as well as discussions with textbook publishers regarding the popularity of small group communication texts. Our goal was to identify common skills and competencies recommended by group communication textbook authors to ensure face validity of the instrument. Second, we examined research which has sought to identify essential small group communication behaviors which lead to group effectiveness. Third, we reviewed extant small group assessment tools as well as research which has summarized the effectiveness of existing group assessment instruments. Finally, we presented our initial conclusions gleaned from reviewing texts, research, and existing instruments to several groups of small group communication educators seeking their recommendations about how to improve the assessment process and format.

Group Pedagogy. As Kelly and Phillips (1990) note, “If teachers are to perform their pedagogical mission, they must first identify what skills are to be taught. Scattered through texts in small group discussion are suggestions about what students ought to do to be effective group members” (p. 6). A content analysis of selected small group communication texts identifies the key topics presented. Kerr (1990) conducted a word count of nine widely used small group communication texts in an effort to identify trends in the amount of attention given to small group communication principles and skills. As reported in Beebe & Barge (1993) she found the most consistently covered topics include defining small group communication, group communication theories and models, roles, cohesiveness, conflict management, interpersonal communication, problem solving agenda and leadership. Her results are generally consistent with the survey conducted by Warnemunde (1986) who found that leadership, problem-solving patterns, conflict management in groups, and group roles were the most frequent topics covered in small
group communication classes, as determined by the number of class period devoted to each topic.

Most small group communication educators organize group member behavior into task and relationship dimensions. Behaviors associated with the group task involve helping the group make a decision, solve a problem or perform its assigned task. John Dewey’s (1910) reflective thinking sequence remains an important launch pad for most of the task “competencies” small group communication textbook authors recommend. Cohen (1994) suggests that Dwight Sheffield (1922) was one of the first persons to write a text on the subject of group discussion. McBurney and Hance’s (1939) text, *The Principles and Methods of Discussion*, was another pioneering work that built upon the work of both Dewey and Sheffield. Although other formats for organizing group deliberations have been developed (e.g., single question, ideal solution, RISK) (See VanGundy, 1981), most are derivative from the problem-to-solution sequence of activities Dewey identified.

Aitken and Neer (1992), in suggesting a competency-based core curriculum for communication departments in higher education, offered some recommendations for “decision-making competence.” While not specifically explicating small group competence, their suggestions clearly have implications for task-oriented small group deliberations:

Decision-making competence includes knowledge of: reflective thinking processes, rhetorical sensitivity, argumentation methods, decision emergence, task process activities, relational activities, topic focus, listening, critical thinking processes and developmental decision-making. The competent decision-maker is able to determine the most appropriate methods by which to communicate effectively, while applying various communication competencies to the decision making process. (p. 270).

Taking a more holistic perspective, Ford and Wolvin (1993) identified the following competencies for the small group communication component of a basic hybrid speech communication course:

Completing tasks in a small group situation  
Interacting with others in a small group situation  
Listening to others in a small group situation  
Feeling comfortable communicating in a small group situation (p. 220)

Even though there are only a handful of efforts to identify and assess small group competency linked to pedagogical outcomes, at least there is a point of departure.
Relationship behaviors are those that help manage attitudes and feelings group members have toward one another. Small group communication textbooks are replete with suggested task and relationship skills in small groups. Compared to the task dimensions of group interactions, very few efforts have been made to develop or identify a comprehensive taxonomy of small group communication relational competencies. Most texts discuss the importance of establishing group cohesiveness, being supportive rather than defensive toward others, listening to others, assuming appropriate roles and managing conflict.

**Group Research.** Compared to the contexts of public speaking, voice and articulation, listening and interpersonal communication, there has been little effort to identify core small group problem-solving communication competencies, yet group problem solving and decision making constitute a central theme in small group communication research. Frey (1988) reports that all but 4.3% of small group communication research published during the 1980's investigated problem-solving or decision-making groups. Research conducted by Randy Hirokawa (1985, 1988a, 1988b, 1992) has produced the most fruitful insights in specifying group member behavior which leads to enhanced group performance. Identifying how communication functions to improve group effectiveness has resulted in the identification of several key behaviors that improve group outcomes. Among the key questions that the functional communication literature suggests group members address are: (1) Is there something in the present situation that needs to be changed? (2) What is the goal the group wants to achieve? (3) What choices does the group have that will help achieve the goal? and (4) What are the positive and negative implications of the choices? Answering these questions will result in vigilant thinking which will, in turn, produce better quality results. In one of the few studies to look explicitly at competency in small groups, Barge and Hirokawa (1989) contend that communication skills can be organized into two categories: (1) task and (2) relational. Task competencies are similar to the ones previously identified and include skills at establishing operating procedures, analyzing the problem, generating solutions, evaluating solutions, and implementing solutions. Relational skills concern the managing of the interpersonal climate and the structuring of roles within the group. Skills such as interaction management, expressiveness, other-orientation, and relaxation are designated as key skills that build constructive group climates.

**Group Assessment Tools.** A variety of methods have been developed by educators and researchers to measure various aspects of group member behavior (Bales & Cohen, 1979; McCroskey & Wright, 1971; Leathers, 1969; Kaplan & Greenbaum, 1989; Greenbaum, Kaplan & Damiano, 1991). Small group communication textbooks also
include numerous group measurement instruments which reflect the diversity in measuring various aspects of group member behavior (e.g., Beebe & Masterson, 1994; Galanes & Brilhart, 1994). Yet in spite of these assessment efforts, Kelly, Kahn, and McComb (1990) suggest, "There is no hard-and-fast rule available for the evaluation of discussion outcomes . . ." (p. 7). Beebe and Barge (1993) reviewed group assessment measures found in group communication texts and found considerable variation in the approaches used to assess both individual group member behavior as well as group outcomes. Reviewing the various efforts to assess group behaviors leads to the unprofound conclusion that there is little agreement as to which group behaviors should be assessed.

One research team systematically reviewed, categorized and evaluated organizational group behavior instruments. Greenbaum, Kaplan, and Damiano (1991) selected organizational group measurement tools published between 1950 and 1990. While they found almost 200 instruments only 40 were supported with reliability data. Further, only 19 instruments were supported by factor analysis. The researchers categorized the 19 instruments by level of analysis (environmental, group, individual member, and task) and, using a systems theory paradigm, also categorized the instruments by stages (input, process, output and feedback). Their research confirms that considerable diversity exists for measuring group communication behavior. Beebe and Barge (1993) summarize the research which has sought to identify group communication competencies and concluded, along with Greenbaum, Kaplan, and Damiano (1991) that there is no consensus in identifying measures of group communication.

Identifying Group Problem-Solving Competencies

In developing competencies for the public speaking context, conferences have been convened, several committees, and individual researchers have nominated key competencies; from the ensuing discussion there has emerged a general consensus as to what constitutes essential public speaking competencies (Morreale, Moore, Taylor, Surges-Tatum, & Hulbert-Johnson, 1992). In interpersonal contexts, a priori competency items, identified after reviewing research and pedagogy, have sometimes been presented to subjects for self assessment (Duran, 1983; Spitzberg, 1983; Spitzberg & Cupach, 1984). Another method of identifying competencies is to ask subjects what they perceive as attributes of effective and ineffective communicators. Schrader (1989) asked 660 university students to identify characteristics of the best and worst communicators that they knew. Out of a total of seventy attributes suggested, using statistical analysis, Schrader identified thirty-nine items that best discriminated between perceptions of
effective and ineffective communicators. A similar approach could be used to identify small group competencies.

The competencies we identified and submitted to tests of validity and reliability are based upon three information sources. First and foremost, we selected the competencies based upon research-validated communication behaviors. Research which identified the function of group communication (Barge, 1990; Barge & Hirokawa, 1989; Hirokawa, 1985, 1988a, 1988b, 1990; Hirokawa & Rost, 1992) proved very useful in documenting the competencies nominated. Second, since one of the purposes of the assessment measure is to evaluate student mastery of competencies taught in group communication classes, the competencies we identify are consistent with the goals of small group educators. A review of group communication texts (See Beebe & Barge, 1993) and the research by Kerr (1990) and Warnamunde (1986) were helpful in selecting the competencies for this instrument. Based upon existing assessment measures, we selected competencies valued in the workplace. Work of Kaplan and Greenbaum (1989), which tested the reliability of assessment instruments used to measure group communication behavior in the workplace, were also useful in confirming the competencies selected. Finally, we have also used presentations at communication conferences to convene groups of small group communication instructors to seek their assistance in designing a user-friendly tool for assessing group problem-solving competence. Based upon pedagogy, group research, competencies valued in applied setting, and discussions with potential users of the instrument, six task and three relationship competencies have been identified. Initially, an evaluation form, patterned after The Competent Speaker (Morreale, Moore, Taylor, Surges-Tatum, Hulbert-Johnson, 1992) was the format selected; this included the list competencies and provided for evaluations of excellent, satisfactory, or unsatisfactory demonstration of the competencies. This draft of the instrument (1994) is on page 28; the most recent CGC form (1995) in on page 29.

Further discussion with potential users of the instrument at the 1994 SCA conference on communication assessment suggested that “define the problem” and “analyze the problem” should be two separate competencies. Potential users also valued a general or omnibus evaluation of a group member's group communication problem-solving competency. Educators also wanted a rating sheet that could accommodate evaluating several group members simultaneously rather than only one group member. We have also sharpened our focus by explicitly considering problem-solving competencies rather than an assessment of group competence. The current instrument includes nine individual and one evaluation of overall competency competencies:
**Group Task Competencies**

1. **Define the problem:** Appropriately defines the problem that confronts the group.

2. **Analyze the problem:** Appropriately analyzes the problem that confronts the group.

3. **Identify criteria:** Appropriately participates in the establishment of the group goal and identifies criteria for assessing the quality of the group outcome.

4. **Generate solutions:** Appropriately evaluates the solutions or alternatives identified by group members.

5. **Evaluate solutions:** Appropriately evaluates the solutions or alternatives identified by group members.

6. **Maintain task focus:** Appropriately helps the group stay on the group task, issue or agenda item the group is discussing.

**Group Relational Competencies**

7. **Manage conflict:** Appropriately manages disagreements and conflict.

8. **Maintain climate:** Appropriately provides supportive comments to other group members.

9. **Manage interaction:** Appropriately manages interactions and invites others to participate.

**General Problem-Solving Competency**

10. **General problem-solving skill:** Uses appropriate and effective group communication problem solving skills.

Table 1 presents face validity support for the nine individual competencies by identifying small group communication textbooks which prescribe these individual group member behaviors for problem-solving group discussions. Virtually all of the textbooks reviewed make direct or indirect references to these group task and relationship competencies. Table 1 also identifies research which offers support for these group competencies. The research cited suggests that group members who exhibit these behaviors contribute to group effectiveness.

**Identifying Criteria for Assessing Small Group Communication Competence**

After competencies were identified and content validity was secured by identifying research support and pedagogical support for the competencies, decisions
were made as to what constitutes excellent, adequate or inadequate attainment of these competencies. The procedure for identifying criteria for competencies was similar to the method used in the development of The Competent Speaker (Morreale, Moore, Taylor Surges-Tatum, & Hulbert-Johnson, 1992). The following taxonomy identifies levels of excellent, adequate, inadequate, or not observed for each of the group competencies assessed.

**Competency One: Define the Problem**

**APPROPRIATELY DEFINES THE PROBLEM THAT CONFRONTS THE GROUP.**

**EXCELLENT**

Offers a clear, appropriate and explicit definition of the problem the group is attempting to solve.

**ADEQUATE**

Offers a general description of the problem the group is trying to solve. Makes at least one attempt to define the problem that confronts the group.

**INADEQUATE**

Inappropriately defines the problem or makes an unclear or inaccurate attempt to define the problem that confronts the group. Makes statements that discourage the group from defining the problem that confronts the group.

**DID NOT USE THIS SKILL**

Was not observed making comments which helped define the problem the group is trying to solve.

**Competency Two: Analyzes the Problem**

**APPROPRIATELY ANALYZES THE PROBLEM THAT THE GROUP HAS DEFINED.**

**EXCELLENT:**

Offers clear, accurate and appropriate statements which identify facts and analyze the causes, obstacles, history, symptoms and significance of the problem the group is attempting to solve.
ADEQUATE:

Offers at least one statement which analyzes the causes, obstacles, history, symptoms and significance of the problem the group is attempting to solve. Identifies some facts about the problem that confronts the group.

INADEQUATE:

Inaccurately or inappropriately makes comments which seek to analyze the causes, obstacles, history, symptoms and significance of the problem the group is attempting to solve. Offers primarily opinions rather than facts to support his/her analysis. Makes statements that discourage the group from analyzing the problem.

DID NOT USE THIS SKILL:

Was not observed making comments which helped the group analyze the problem.

Competency Three: Identify Criteria

APPROPRIATELY PARTICIPATES IN THE ESTABLISHMENT OF THE GROUP GOAL AND IDENTIFIES CRITERIA FOR ASSESSING THE QUALITY OF THE GROUP OUTCOME.

EXCELLENT

Clearly and appropriately identifies the goal the group is attempting to achieve and makes several comments which identifies or modifies appropriate criteria for an effective solution to the problem the group is attempting to solve.

ADEQUATE:

Offers at least one appropriate comment identifying the goal the group is attempting to achieve and makes at least one comment which identifies or modifies criteria for an effective solution to the problem the group is attempting to solve.

INADEQUATE:

Made comments which inaccurately or inappropriately identified criteria for identifying a solution to the problem confronting the group. Makes statements that discourage the group from identifying criteria.

DID NOT USE THIS SKILL

Offers no comments about the goal the group is attempting to achieve and makes no relevant comments attempting to identify or modify criteria for an effective solution the problem the group is attempting to solve.

Competency Four: Generate Solutions

APPROPRIATELY IDENTIFIES SOLUTIONS OR ALTERNATIVES TO SOLVE THE PROBLEM THAT THE GROUP IS SEEKING TO SOLVE.
EXCELLENT
Offers several clear, explicit and appropriate solutions or alternatives to the problem or decisions the group has identified and combines two or more already existing solutions to develop a new solution or alternative.

ADEQUATE
Offers at least one appropriate solution or alternative to the problem or decision the group has identified.

INADEQUATE
Offers inappropriate solutions or alternatives to the problem or decision the group has identified. Squelches creativity by prematurely evaluating solutions. Makes statements that discourage the group from identifying solutions.

DID NOT USE THIS SKILL
Offers no appropriate solutions or alternatives to the problem or decision the group has identified.

Competency Five: Evaluate Solutions

APPROPRIATELY EVALUATES THE SOLUTIONS OR ALTERNATIVES IDENTIFIED BY GROUP MEMBERS.

EXCELLENT
Clearly and appropriately identifies appropriate positive or negative consequences from solutions generated by the group supported with evidence and rationale arguments.

ADEQUATE
Identifies at least one appropriate positive or negative consequence from the solutions generated by the group.

INADEQUATE
Makes inappropriate comments that keep the group from evaluating the solutions generated by the group. Makes statements that discourage the group from evaluating solutions.

DID NOT USE THIS SKILL
Makes no comments which identify positive or negative consequences from solutions generated by the group.
Competency Six: Maintain Task Focus

PROPRIETEELY HELPS THE GROUP STAY ON THE GROUP TASK, ISSUE OR AGENDA ITEM THE GROUP IS DISCUSSING.

EXCELLENT
Clearly and appropriately summarizes what the group has discussed and makes appropriate task-relevant comments that help define the issues, analyze the issues, and generate or evaluate solutions.

ADEQUATE
Makes at least one comment that appropriately summarizes what the group has discussed and makes comments that are usually relevant to the group task.

INADEQUATE
Makes several inappropriate comments that get the group off the task at hand. Makes comments that are not relevant to the group's discussions.

DID NOT USE THIS SKILL
Makes no attempt to summarize the group progress and frequently makes comments that divert the group from the task.

Competency Seven: Manage Conflict

APPROPRIATELY MANAGES DISAGREEMENTS AND CONFLICT.

EXCELLENT
Appropriately attempts to integrate differing opinions or solutions to help manage conflict by focusing on issues, information and evidence as opposed to personalities.

ADEQUATE
Makes at least one attempt to integrate differing opinions or solutions to help manage conflict by focusing on issues, information and evidence as opposed to personalities.

INADEQUATE
Makes comments to other group members which escalate conflict and contributes to group tension. Is insensitive the feelings of others when managing conflict. Makes statements which discourage the effective management of conflict.
DID NOT USE THIS SKILL

Makes no attempt to integrate differing opinions or solutions to manage conflict and may make personal attacks on others rather than using information and evidence to manage conflict.

Competency Eight: Maintain Climate

APPROPRIATELY PROVIDES SUPPORTIVE COMMENTS TO OTHER GROUP MEMBERS.

EXCELLENT

Offers appropriate positive comments to others and/or appropriately uses humor that reinforces good work, manages group tension and helps maintain positive group relationships.

ADEQUATE

Offers at least one appropriate positive comment to another that reinforces good work and/or occasionally may use humor to manage group tension and maintain positive group relationships. Makes some effort to reinforce the good work of others.

INADEQUATE

Offers comments that criticize and evaluate people rather than ideas. Interjects more negative comments than positive comments.

DID NOT USE THIS SKILL

Offers no positive comments to others that reinforce good work and/or does not use humor to maintain a positive climate.

Competency Nine: Manage Interaction

APPROPRIATELY MANAGES INTERACTIONS AND INVITES OTHERS TO PARTICIPATE

EXCELLENT

Consistently and appropriately initiates and terminates discussion about issues the group is discussing so as not to talk too much or too little and appropriately invites others to speak in an effort to distribute talk time equitably among group members. Serves as an effective gatekeeper in managing group interaction.
ADEQUATE
Usually initiates and terminates discussion about issues the group is discussing so as not to talk too much or too little and makes at least one attempt to invite others to speak in an effort to distribute talk time equitably among group members.

INADEQUATE
Consistently talks too much or too little about issues the group is discussing.

DID NOT USE THIS SKILL
Does not invite others to speak in an effort to distribute talk time equitably among group members.

Competency Ten: General Group Problem Solving Skill
USES APPROPRIATE AND EFFECTIVE GROUP COMMUNICATION PROBLEM SOLVING SKILLS

EXCELLENT
Overall, makes many comments that help the group define and analyze the problem. Appropriately identifies criteria and generates solutions. Usually evaluates solutions and helps the group stay on task. Appropriately manages conflict, offers positive comments to maintain a positive climate and serves as a gatekeeper to manage group interaction.

ADEQUATE
Sometimes but not always makes comments that help the group define and analyze the problem. Makes some comments that appropriately identifies criteria and generates solutions. Sometimes makes an effort to evaluate solutions and help the group stay on task. Under some circumstances manages conflict, offers some positive comments to maintain a positive climate and makes some effort to serve as a gatekeeper to manage group interaction.

INADEQUATE
Was detrimental to helping the group solve the problem and manage group relationships. Makes inappropriate comments that prohibit the group from defining and analyzing the problem. Makes inappropriate comments which do not help the group identify criteria or identify solutions. Offers inappropriate comments which did not help the group evaluate solutions. Made irrelevant comments and kept the group from staying on task. Did not appropriately conflict; often contributed to escalating conflict and group tension. Offered more negative comments about the group task and group members than positive comments. Talked too much or too little and was insensitive to other group members who talked too much or too little.
DID NOT USE THIS SKILL

Is not a significant contributor to the discussion. Usually is not observed making comments that helps the group define and analyze the problem. In general, was not observed making comments that appropriately identifies criteria and generates solutions. Was usually not observed evaluating solutions that helped the group stay on task. Was usually not observed managing conflict or offering positive comments to maintain a positive climate and was usually not observed serving as a gatekeeper to manage group interaction.

Instrument Development Assumptions

We opted for an assessment instrument which evaluates student performance rather than student knowledge or only self-report measures. CAT recommends that "speaking and listening skills must be assessed through actual performance in social settings (speaking before an audience, undergoing and interview, participating in a group discussion, etc.) appropriate to the skill(s) being assessed" (Morreale, Moore, Taylor, Surges-Tatum, & Hulbert-Johnson, 1992, p. 3). Hay (1994) also suggests that "alternative assessment" in speech communication has merit; alternative assessment procedures, as described by Herman, Ascbacher and Winters (1992) will:

- Ask students to perform, create, produce, or do something.
- Tap higher-level thinking and problem solving skills.
- Use tasks that represent meaningful instructional activities.
- Invoke real-world applications.
- [Require] People, not machines to do the score, using human judgments.
- Require new instructional and assessment roles for teachers. (p. 2).

Assessing student performance in a problem-solving group discussion holds several challenges due to the interactive nature of the activity. When giving a speech one student can be observed at a time performing discreet behaviors. A group discussion involves several student performances simultaneously which results in challenges to measure individual student performance.

Testing the Validity and Reliability of the Instrument

Of paramount importance is the confirmation of the validity and reliability of any assessment instrument. We report here the continuing procedures and results in testing the validity and reliability of The Competent Group Communicator (CGC) evaluation form.

A pilot test of the instrument occurred at Southwest Texas State University in April 1994 using an early draft of the criteria for identifying excellent, satisfactory and
unsatisfactory. A key goal of this test was to gain qualitative feedback from raters about the criteria and general procedures for conducting an evaluation rather than gathering reliability and validity data. The earlier draft of criteria was more lengthy and less specific that the criteria reported in this paper. A class of twenty-five students who had successfully completed an undergraduate course in small group communication were given copies of the criteria and The Competent Group Communicator evaluation form and were trained to evaluate group member behavior. A group of five students were given a case study (“The Hurricane Case”, Beebe & Masterson, 1994) and were invited to seek solutions to the problem confronting them in the case. Raters were trained to assess group member competency then observed the five-member group deliberate about the case study. Raters read the criteria and were given a twenty-minute lecture teaching them how to identify and assess the group competencies. (Group members who were being observed were to identify and rank-order procedures for securing their safety and property in the face of a rapidly approaching hurricane.) During as well as following the forty minute discussion, evaluators assessed group member competency using The Competent Group Communicator evaluation form. In this pilot study, raters were told to evaluate each group member on all eight competencies. After the evaluation forms were completed the forms were collected; raters were asked to write comments about the process of assessing group member behavior. The most consistent comments from raters indicated that the relational competencies were more difficult to assess than the task competencies. Raters also reported difficulty assessing five group members on eight competencies while observing a live group discussion. Raters would feel more comfortable with their evaluations if they could view the discussion on video tape so that they could stop, restart and review portions of the group discussion.

Results of this first pilot test using The Competent Group Communicator form led to modifications in the criteria. Descriptions of the criteria were edited to enhance the clarity of the description and to ensure that only one type of behavior was being observed for each competency. Special attention was given to the rewriting of the descriptions of the relational competencies to enhance the clarity of the behaviors assessed.

A second pilot test of the CGC was conducted at the University of Colorado at Colorado Springs during the 1994 spring semester (See Appendix). In order to test the reliability of the instrument, McCormick (1994) attempted to replicate the psychometric testing model used to test the Competent Speaker Evaluation Form (Morreale, Moore, Taylor, Surges-Tatum, & Hulbert-Johnson, 1993). Based on the suggestions generated by the first pilot test conducted by Beebe, a videotape was developed by McCormick containing four problem-solving groups. The groups each met for approximately one and
one half hours and consisted of five to ten members each. The groups were actual problem-solving teams communicating in naturalistic settings on the campus. Next, four graduate teaching assistants (GTA's) were selected to act as raters, to assess the individual behaviors of the individuals in the problem-solving groups on the videotape using the CGC evaluation form. The four raters were purposefully mixed by gender (two male and two female) and ethnicity (one African American, two Anglo Americans, and one Hispanic American).

During a first training session, the raters were instructed to (a) review the standards and criteria for the competencies described on the CGC form before viewing the groups on the videotape, (b) view the group interaction while simultaneously reviewing the standards and criteria as they pertain to the individual behaviors displayed in the group, and (c) enter the evaluation on the rating form. The scoring system used in this pilot study was 1-2 (unsatisfactory), 3-4 (satisfactory), and 5-6 (excellent).

The goals for this second pilot test were to begin to test the CGC instrument for interrater reliability and to conduct that testing in regard to ethnicity, age, and gender bias of both the rater and individual being rated. Raters met twice, for two different training and rating sessions, to begin to test the instrument. Rather than actually running interrater reliability tests, this pilot test generated suggested guidelines and recommendations for such future psychometric testing of the CGC.

As already stated, the four raters met for two different sessions of three to four hours each, with the intention of using the instrument to rate the small group communication behaviors of individuals in the groups on the videotape. During both sessions, raters expressed frustration over the size of the groups, particularly those groups that consisted of more than five participants, and the length of the group interactions (one and one half hours) on the videotape. Based on these expressed concerns, further testing of the instrument should be modified accordingly.

It was recommended that the groups to be rated should be smaller, consisting of approximately four to five members. Any more members than that could be described as a meeting (in which only one or two individuals might display a sufficient sample of the observable behaviors necessary for rating purposes) instead of as a small group discussion. Indeed, in the groups on the videotape generated by McCormick, only one or two individuals did dominate the communication interaction of the group. The length of the group interaction on the videotape also was problematic for the raters to feasibly rate all group members thoroughly. In a group interaction of an hour and a half in length, the rater is challenged in that reviewing the tape separately to rate each communicant in a group of five or more could take as much as seven hours. Conversely, if the raters watch
only a portion of the videotape for a given communicant, that individual might not display the observable behaviors necessary to be assessed.

Another concern of the raters during both sessions was how to rate an individual if a given competency listed on the CGC was not displayed. It is paramount that the communicator display sufficient behavior characteristics of a given competency in order to use the form effectively. However, if the behavior is not exhibited by a communicator, some guidelines need to be provided for scoring and using the Competent Group Communicator form effectively.

Suggested guidelines for the future testing of this instrument include extensive training of the raters. The raters need to be clear on what behaviors represent the various competencies on the form. Additionally, future testing should address what may constitute a sufficient sample of performance such that an informed evaluation of a given competency can occur.

Based on the second pilot test and the two rating sessions conducted at the University of Colorado at Colorado Springs, it is obvious that the effective utilization of a small group assessment tool may involve some difficulties to be addressed by the researcher. The interactive process nature of small group communication provides challenges for both the development and the testing of a psychometrically sound tool. Yet developing such an instrument can be of value as we seek to understand how to enhance the communication competency of individuals communicating with others in small groups.

Following these initial pilot tests, the instrument was presented at the SCA Conference on Assessment in August, 1994. Three groups of small group communication instructors evaluated the instrument and made several recommendations that are reflected in the current form. These groups served as focus groups to assist the instrument development team develop a user-friendly and pedagogically useful tool. Group communication instructors wanted a form that would permit them to evaluate a group of at least five people at the same time. Pilot test data as well as comments from potential users suggest that instead of a three-point evaluation of “unsatisfactory,” “satisfactory,” or “excellent,” that a fourth category of “did not use this skill” should be added and that the word “adequate” would replace “satisfactory” and “inadequate” would replace “unsatisfactory.” Focus group members also valued a way of providing feedback not only to individual members but also to provide a general assessment of the group’s performance of the ten competencies.
Procedures for Using the Current Assessment Form

The current version of the Competent Group Communicator is designed to be used by trained raters who view a group discussion on video tape so that they can review the discussion to ensure accuracy while evaluating the behavior of several group members. The suggested procedures are as follows:

1. Raters are trained to use the CGC form. Descriptions of “Excellent,” “Adequate,” and “Inadequate” display of the competencies are given to the raters being trained to use the form and are reviewed. To assist in the training, sample videotaped excerpts illustrating each of the nine individual competencies should be developed and shown to raters during the training. Group raters should practice viewing these taped examples and coding them accurately.

2. A group of up to 5 people will be videotaped while attempting to solve a problem. The problem-solving scenario should last approximately 45 minutes to one hour. The problem should involve the use of data or evidence so that group member’s abilities to appropriately analyze and define the problem may be assessed. It should also be a problem that permits the group to generate multiple solutions to the problem.

3. The video taped problem-solving discussion will be shown to the trained raters. Each rater will assess each member of the group based upon viewing the video taped discussion. The raters will also rate the entire group as a whole. Raters may review the video tape as often as they like until they believe that have accurately assessed each group member and the entire group.

An Invitation

This revised version of the instrument was tested in October 1995 at Southwest Texas State on a live group discussion as a pilot of the instrument included here. Graduate students in a Seminar in Small Group Communication class were trained (without video taped exemplars) to recognize the display or non-display of the nine individual group problem-solving competencies. Results indicated an improved ability to use the form yet many raters would have valued reviewing the discussion on video tape at least one more time to enhance their confidence in accurately assessing member competencies. Yet is seemed clear to both the raters and to us that viewing the discussion on video tape would enhance reliability.
Additional tests of the instrument are planned before wide-spread distribution of a "final" draft is prepared. The authors invite educators to assist in using and testing the instrument to determine if it meets their needs and to assess the validity and reliability of the instrument. The instrument will be valuable only if small group educators find it helpful in assessing their students' small group problem-solving competencies. Those interested in testing the instrument may contact: Steven Beebe, Department of Speech Communication, Southwest Texas State University, San Marcos, Texas 78666 (Phone: 512-245-2165; FAX: 512-245-3138; e-mail SB03@academia.SWT.edu).

Conclusion

Courses in small group communication are a well established component of the communication curriculum. Corporate training and development programs continue to teach people how to solve problems, make decisions, work in committees and develop teamwork skills. Yet, despite the importance of learning small group communication problem-solving skills, systematic efforts to identify and assess key problem-solving competencies have been limited.

Many challenges have kept educators from developing a comprehensive assessment of small group communication problem-solving competencies. Basic issues as to what constitutes a group communication skill, how to identify the criteria for a competent small group communicator, how to identify the appropriate unit of analysis for group competence and challenges in selecting methods of assessing group competence need to be addressed before a valid and reliable assessment instrument can be developed (Beebe & Barge 1994).

Despite these obstacles, there are distinct advantages to forging ahead in the development on an instrument to assess small group problem-solving competencies. The development of an assessment tool will not be easy. The interactive, process nature of group communication problem solving provides challenges for the development of a psychometrically sound tool. Yet developing such an instrument can be of great value as we seek to understand how to enhance the abilities of communicating with others in small groups.
APPENDIX

A PILOT TEST OF THE COMPETENT GROUP COMMUNICATOR

Overview

This pilot study examined the Competent Group Communicator. The scale is an assessment instrument designed to evaluate the performance of individual members who participate in problem-solving small group discussions. This study is part of the ongoing efforts to develop and test a valid and reliable instrument to assess small group communication competencies.

This is only a preliminary pilot study of this instrument, intended to inform the instrument development process but not to provide psychometric support, as yet for this tool. The sample size is limited in terms of both raters and students/subjects. However, the results of this effort can provide direction and suggestions to the instrument’s developers in regard to scoring, criteria definition and rater training.

Subjects

The participants in this pilot study were nine students enrolled in a small group communication course at the University of Colorado at Colorado Springs. The subjects were three white males, three white females, two black females, and one Asian female. The students comprised two discussion groups. Students engaged in discussion in their groups focusing on an issue/problem for approximately 20 minutes.

Instrumentation

The instrument being tested in this pilot study is the Competent Group Communicator (Beebe and Barge, 1994). The pilot test was conducted to test the instrument for preliminary inter-rater reliability and for any indication of ethnic or gender bias, as related to the subjects being rated.

The instrument is designed with two sections; the first section contains nine competent group behaviors while the second section contains four areas to rate the individual’s overall group performance. Due to the lack of criteria based upon which to make decisions about overall group performance, the second section of the scale was omitted by raters in this pilot study. Therefore, the findings are based on the first section of the instrument, or the nine competent group behaviors.

Procedures
Taping of subjects. Subjects were videotaped during a classroom “fishbowl” exercise, three student groups of 4-5 members participate in a discussion. This discussion takes place in the middle of the classroom with other class members acting as observers. Each group discussed an issue/problem for approximately 20 minutes. A microphone was placed in the center of the group and the entire discussion was audio and videotaped.

Training of raters. Three raters, one white male, one black male, and one white female, were trained to evaluate the behaviors of the student son videotape. The raters were provided with the Group Rating Scale and criteria for the first nine competencies one week prior to the rating session. A videotape of one group discussion session was viewed specifically for training purposes. At the end of that viewing, the raters discussed the nine competencies as they pertained to the group members’ observed behaviors and an attempt was made to establish a common understanding and interpretation of the criteria.

Coding of data. Following the training period, raters viewed and coded the observed behaviors of two more test groups, one with five members, the other consisting of four group members. Raters chose to rate all members within each group at one time rather than viewing the tape four and five separate times. Hence, for the first group, each rater placed five scales in front of him/her and rated all group members. For the second group, each rater used four forms and rated each member. This appears to be the most feasible and less time consuming way to rate individual behaviors within groups, provided the group does not exceed 5-6 members. This process of rating also allows the rater(s) to see the entire group interaction rather than just one group member’s behavior. The videotape can be played back as many times as the rater feels necessary in order to make informed evaluative decisions. For the purposes and time constraints of this pilot test, the videotape was viewed once. Raters marked either Excellent, Adequate, Inadequate, or Did Not Use This Skill for each of the nine competencies. The testing took place during a three and one half hour period with interruptions.

DATA ANALYSES AND RESULTS
The data were statistically analyzed to calculate an alpha coefficient for inter-rater reliability for the three raters and to determine, using analyses of variance, whether the instrument demonstrated any biases in evaluating behaviors of students, related to gender or ethnicity.

As indicated in the training of the raters, three raters, two male and one female, were trained and then tested for inter-rater reliability using Cronbach’s alpha to assess the
level at which they similarly identified the nine communication behaviors of the nine subjects. The raters reached a reliability level of .7978.

Table 1 presents the results of analysis of variance of all nine subjects, by gender and by ethnicity.

Table 1

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>d.f.</th>
<th>Mean Square</th>
<th>F</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of Subjects</td>
<td>1</td>
<td>.500</td>
<td>.957</td>
<td>.373</td>
</tr>
<tr>
<td>Ethnicity of Subjects</td>
<td>2</td>
<td>.833</td>
<td>1.809</td>
<td>.256</td>
</tr>
</tbody>
</table>

As Table 1 indicates, there is no significant difference, based on the gender or ethnicity of the students in the two groups. That is, male and female students, and students of diverse ethnic backgrounds, were rated similarly by the three raters.

DISCUSSION

The findings presented indicated that the Competent Group Communicator is a reliable tool and free of gender and ethnic bias. However, as previously noted, this is only a preliminary pilot study limited by rater and subject/student size and is intended to inform the instrument development process and not provide psychometric support for the tool. Given a larger sample size the findings would most likely be different. Nevertheless, this preliminary study has generated directions and suggestions for scoring, criteria definition, and rater training.

In regards to suggestions for scoring the instrument, raters found that evaluating all group members at one time proved to be the most expedient in terms of the communication behaviors. It is also advantageous to the raters to be able to play back the videotaped groups as often as necessary. Raters were able to assess the individual students communication behavior based on the first nine behaviors. The criteria pertaining to these nine behaviors was clear and understandable and therefore easy to norm by. However, raters found difficulty in using the final four item's on the scale due to lack of criteria. Clearly define criteria for the final four items similar to the criteria established for the previous nine items would be very helpful to raters in the future.

As indicated, raters found the criteria provided for the nine behaviors to be quite useful in rating the subjects/students. However, there was some discrepancy in how to
score the behaviors using the criteria provided. There was concern that the competencies contained quite a few requirements within each criteria level. With this in mind, it was noted that a subject can at one point in the discussion perform the same competency inadequately. It is suggested that a tracking of the behaviors be made prior to the final scoring of the behaviors. A rater would mark the number of time a subject behaved competently as well as incompetently and then come up with a balance score of some kind that would reflect the categories of competent group behavior.

This pilot student sought to test the *Competent Group Communicator* instrument for inter-rater reliability along with gender and ethnic bias. The findings suggest that the instrument does indicate reliability and shows no significant gender or ethnic bias. This is not a final testing of the instrument but only a pilot study to assist in the process of development.
<table>
<thead>
<tr>
<th>Competency One: Define Problem</th>
<th>Competency Two: Analyze Problem</th>
<th>Competency Three: Identify Criteria</th>
<th>Competency Four: Generate Solutions</th>
<th>Competency Five: Evaluate Solutions</th>
<th>Competency Six: Maintain Task Focus</th>
<th>Competency Seven: Manage Conflict</th>
<th>Competency Eight: Maintain Interaction</th>
</tr>
</thead>
</table>
The Competent Group Communication Evaluation Form (1994)

Eight Small Group Competencies

<table>
<thead>
<tr>
<th>Group Task Competencies</th>
<th>Performance Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Competency One: Defines and Analyzes the Problem. APPROPRIATELY DEFINES AND ANALYZES THE PROBLEM THAT CONFRONTS THE GROUP.</td>
<td></td>
</tr>
<tr>
<td>Competency Two: Identifies criteria. APPROPRIATELY PARTICIPATES IN THE ESTABLISHMENT OF THE GROUP GOAL AND IDENTIFIES CRITERIA FOR ASSESSING THE QUALITY OF THE GROUP OUTCOME.</td>
<td></td>
</tr>
<tr>
<td>Competency Three: Generates solutions. APPROPRIATELY EVALUATES THE SOLUTIONS OR ALTERNATIVES IDENTIFIED BY GROUP MEMBERS.</td>
<td></td>
</tr>
<tr>
<td>Competency Four: Evaluates solutions. APPROPRIATELY EVALUATES THE SOLUTIONS OR ALTERNATIVES IDENTIFIED BY GROUP MEMBERS.</td>
<td></td>
</tr>
<tr>
<td>Competency Five: Maintains task focus. APPROPRIATELY HELPS THE GROUP STAY ON THE TASK, ISSUE OR AGENDA ITEM THE GROUP IS DISCUSSING.</td>
<td></td>
</tr>
<tr>
<td>Group Relationship Competencies</td>
<td></td>
</tr>
<tr>
<td>Competency Six: Manages conflict. APPROPRIATELY MANAGES DISAGreements AND conflict.</td>
<td></td>
</tr>
<tr>
<td>Competency Seven: Maintains climate. APPROPRIATELY PROVIDES SUPPORTIVE COMMENTS TO OTHER GROUP MEMBERS.</td>
<td></td>
</tr>
<tr>
<td>Competency Eight: Manages Interaction. HELPS MANAGE INTERACTION AND APPROPRIATELY INVITES OTHERS TO PARTICIPATE.</td>
<td></td>
</tr>
</tbody>
</table>

General Comments: 

Summative Scores of Competencies: _____
### Competent Group Communicator Rating Scale (1995)

**Group Competencies**

<table>
<thead>
<tr>
<th>Score Value</th>
<th>Group Competencies</th>
<th>Group Member</th>
<th>Group Member</th>
<th>Group Member</th>
<th>Group Member</th>
<th>Group Member</th>
<th>Group Member</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 1 0 0</td>
<td>Defined the problem the group attempted to solve</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Analyzed the problem the group attempted to solve using evidence and data.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Identified criteria for an appropriate solution to the problem.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Evaluated solution(s): Identified positive or negative consequences of the proposed solutions.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Maintained task focus: Helped the group stay on or return to the task, issue, or agenda item the group was discussing.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Managed conflict by helping the group stay focused on issues rather than personalities.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Maintained climate: Offered positive comments to help maintain a positive group climate.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>Managed group interaction by appropriately initiating and terminating discussion, contributing to the discussion, or inviting others to contribute to the discussion.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
<tr>
<td>2 1 0 0</td>
<td>General group competency: Used appropriate and effective group communication problem solving skills.</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td>E A I N</td>
<td></td>
</tr>
</tbody>
</table>

**Task Score**

\[
T = \frac{1}{6} (1+2+3+4+5+6)
\]

**Range:** 12 - 0

**Relationship Score**

\[
R = \frac{1}{6} (7+8+9)
\]

**Range:** 6 - 0

**General Competency Score**

\[
GC = \frac{1}{2} (10)
\]

**Range:** 2 - 0

**Total Score**

20 - 0: Range for individual score

**Comments:**

Comments: Comments: Comments: Comments: Comments:
References


