The purposes of this study were to determine what specific types of criticism students perceive as being most helpful, whether student perceptions of helpfulness in different types of criticism vary according to individual levels of speech anxiety or exhibitionism, and whether student perceptions of helpfulness in different types of criticism vary according to study and instructor sex differences. The subjects were 309 college students enrolled in a basic speech communication course. Ten of the classes were taught by male instructors, ten by female instructors. The subjects were administered a revised version of the Personal Report of Confidence as a Speaker. The results indicated that students did not have a general preference for criticism of delivery or content. They apparently felt that both types of criticism were equally important. Also, student preferences indicated that instructors should include both positive and negative comments in their criticism. (WR)
STUDENT PERCEPTIONS OF HELPFULNESS
IN CLASSROOM SPEECH CRITICISM

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This report is based on a Masters thesis completed under Professor Gustav W. Friedrich at Purdue University in 1972.
Criticism and evaluation is a vital part of teacher behavior in the speech classroom. Every instructor must face the question posed by Holtzman (1960, p.1): "What can I say (or write or do) that will result in this student's improving his communicative ability?" This is a complex question which is difficult, if not impossible, to answer at the present time. Teacher behavior has generally been prescribed by inferences based on psychological models of behavior change or by theory based on classroom experience. Erickson (1970) indicated that research studies testing the effectiveness of criticism and evaluation techniques are, for the most part, shallow and inconclusive.

Sprague (1971) developed and used an observational schema whereby critical comments can be described using the technique of content analysis. Every criticism can be classified according to four dichotomies: (1) content-delivery, (2) positive-negative, (3) personal-impersonal, and (4) atomistic-holistic. Operational definitions of these terms are included in Appendix A. Sprague utilized these dichotomous classifications because of four basic areas of controversy which she identified in the literature related to speech criticism.

The first dichotomous classification was included because authorities disagree about the relative emphasis that should be placed on content and delivery in criticism. While Reid (1971) and Phillips (1970) argue that the critic should comment primarily on content, other writers (McGraw, 1924; Balcer and Seabury, 1965; Dedmon, 1967) recommend a balance in critical emphasis on content and delivery.
The second classification was utilized because a controversy exists in the literature regarding the proportion of positive and negative comments which should be included in criticism. Several theorists (Balcer and Seabury, 1965; Bostrom, 1961; Reid, 1971; Robinson and Kerikas, 1963) argue for a high proportion of positive comments. Learning theory suggests, however, that it is not a good practice to let undesirable behavior continue without comment since, in effect, that behavior is being reinforced (Bugelski, 1964); and there is some evidence that an excess of praise may have damaging psychological effects (Farson, 1963; Gibb, 1961; Ginott, 1969).

The third dichotomy was included in the Sprague content analysis procedure because of the basic controversy between the learning-based model of behavior change and the self model. Behaviorally oriented writers (Baker, 1967; Bugelski, 1964; Kelly, 1965; Kibler, Barker, and Miles, 1970) maintain that criticism should be as objective as possible and that a teacher's own affective responses, attitudes, and values are inappropriate elements in the critical process. Others (Moustakas, 1966; Phillips, 1970; Rogers, 1969; Seiger, 1956) claim that affective responses may be essential to the establishment of an authentic personal teacher-student relationship which is a prerequisite of learning.

The fourth dichotomous classification was used because some theorists (Dedmon, 1967; Kelly, 1965) stress the importance of evaluating specific aspects of a speech performance while others (Balcer and Seabury, 1965; Weaver, Borchers, and Smith, 1952) emphasize that the teacher should always include a comment about the overall performance.

The positive-negative dichotomy is the only critique variable which has been empirically investigated in terms of student response. While analyzing
student recall of criticism, both Arnold (1964) and Albright (1967) found that students recalled significantly more negative comments than positive comments. Research by Bostrom (1961) indicated that negative or positive criticism might have a corresponding effect on self concept as a communicator. This does not indicate, however, that students have a negative reaction to negative criticism. When Albright (1967) asked students to rate their personal reaction to each comment received as either positive or negative, students reacted positively to 57 percent of all comments that criticized their speeches negatively.

Except for the above emphasis on positive and negative comments, empirical studies of student response to criticism have tended to focus on all types of criticism in general. Since student perceptions of helpfulness provide one preliminary means by which to evaluate the theoretical controversy which underlies the Sprague content analysis technique, the first question under consideration in this exploratory investigation was:

What specific types of criticism do students perceive as being more helpful; i.e., content or delivery, positive or negative, personal or impersonal, atomistic or holistic?

Instructors who see slow improvement or a lack of improvement in many students have reason to doubt whether classroom criticism effects positive improvement in the speaking ability of some students. Casual classroom observation would tend to indicate that student responses to classroom criticism vary in terms of individual characteristics. Student response, however, has seldom been analyzed in light of individual student differences. On the basis of theoretical evidence, Arnold hypothesized that students of high academic aptitude would improve significantly more as a result of criticism than students of low academic aptitude. When instructors criticized student
speeches as they saw fit, Arnold found the direct opposite of his hypothesis to be true; in fact, students of high academic aptitude actually regressed in quality of performance when they were subjected to criticism.

Arnold's finding indicates the necessity of investigating other individual student characteristics, and self concept theory presents one area for investigation. Brooks (1971) states that an individual's self concept affects the way he selects and processes communication. A student with a low self concept is likely to be sensitive to criticism, over-responsive to praise, hypercritical of himself, and pessimistic toward competition. On the other hand, a student with a high self concept is likely to be confident of his ability, to accept praise without embarrassment, and to look at criticism as being beneficial, i.e., a chance to acknowledge weaknesses and set out to change them. The self is conceptualized as multidimensional with different self aspects affecting a person's behavior in different situations (Gergen, 1969). Since speech anxiety and exhibitionism are two aspects of self concept which contribute to speaker confidence and may be considered salient in the setting of classroom speech performance and criticism, the general question under consideration in this exploratory investigation was:

Do student perceptions of helpfulness in different types of criticism vary according to individual levels of speech anxiety or exhibitionism? If so, how do they vary?

Recent findings indicate that sex variables influence classroom criticism and student response. Albright (1967) found that female students generally have better attitudes toward criticism than do male students. In addition, Sprague (1971) found that both student and instructor sex were significantly related to the types of criticism students actually received. Because sex variables are related to research in this area, the third general question
under consideration in this exploratory investigation was:

Do student perceptions of helpfulness in different types of criticism vary according to student and instructor sex differences? If so, how do they vary?

Subjects

The 309 students who participated in this investigation were enrolled in twenty class sections of COM 114 (Fundamentals of Speech Communication) at Purdue University during the spring semester of 1972. Ten of the classes were taught by male instructors; ten by female instructors. Under male instructors, eighty students were male and seventy-six were female. There were ninety males and sixty-three females in the ten classes taught by female instructors.

Methodology

Subjects were administered a revised version of Gilkinson's (1942) Personal Report of Confidence as a Speaker (PRCS). Since factor analytic research by Friedrich (1970) indicates that the PRCS is not unidimensional, the instrument was revised for use in this study. On the basis of Friedrich's results, items were extracted from the PRCS and submitted to factor analysis using the principal factor method with product moment correlations and normal varimax rotation. Using the data Friedrich gathered from 366 subjects at the University of Kansas, items were gradually deleted during four analyses. The final instrument comprised two eight-item subscales measuring speech anxiety and exhibitionism. The final factor analysis of this instrument produced an orthogonal solution of two eight-item factors, indicating subscale independence.1

1Product moment correlations were computed between total scores on the subscales, the sixteen-item instrument, and the total PRCS inventory. Scores on the sixteen-item instrument correlated .89 with scores on the 104-item PRCS. At the same time, the correlation coefficient between subscale scores was .56; while the total sixteen-item instrument has high concurrent validity with the PRCS, it provides a cleaner measurement of speaker confidence because the dimensions being measured are more clearly defined.
Persons who score high on the exhibitionism subscale take pride in their speaking ability. They report that they face the prospect of making a speech with complete confidence. They report feeling expansive and fluent while speaking; ideas and words come to mind easily. On the other hand, persons who score high on the anxiety subscale are reporting that they feel awkward when making a speech. Before the speech, they become frightened and nervous. During the speech, they lose the thread of their thinking, become confused, jumble the speech, and become flustered when anything unexpected occurs.

On the basis of student response to this sixteen-item instrument, subjects in this study were divided evenly into low, medium, and high levels of speech anxiety and exhibitionism.

The four dichotomous classifications utilized in the Sprague content analysis procedure provide 8 basic labels for different types of criticism. In addition, the classifications can be combined in 24 two-way combinations (e.g., content-positive), 32 three-way combinations (e.g., delivery-impersonal-atomistic), and 16 four-way combinations (e.g., content-negative-impersonal-holistic). Since this approach provides 80 different ways in which to describe different types of criticism, the procedure of obtaining responses in a hypothetical setting was necessary to insure that response to all types of criticism would be obtained.

A collection of critical comments was developed which reflected all of the dimensions of criticism equally. Three graduate students in speech education compiled sixty statements for possible inclusion in a questionnaire. Using Sprague's four dichotomies, five graduate students with experience in teaching speech coded each of these statements. On the basis of interjudge agreement, 32 comments were retained as a stimulus. Within this collection of critical
comments, each of the eight classifications (content and delivery, positive and negative, personal and impersonal, atomistic and holistic) was represented sixteen times. It is possible for the eight classifications to be combined in sixteen different four-way combinations. Each of these possible combinations was represented twice in the stimulus. The critical comments utilized are listed as examples in Appendix A.

In a hypothetical situation, subjects were asked to respond to each of the critical comments. They were to assume that they had just finished delivering a five-minute speech in their class and that they received these comments from their instructor. Since it is not likely that an instructor would give a student all of these comments on one speech, subjects were asked to respond to each comment individually. Assuming that they received the statement and thought it to be an accurate assessment of their speech, they rated the helpfulness of each comment by responding on a seven-point continuum. The ends of the continuum were anchored by the terms "not helpful" and "very helpful."

Although the major limitation of this study was that subjects responded in a hypothetical situation, each of the subjects had experienced speechmaking in the classroom and had received criticism from his instructor. However, despite the fact that the instructions for the questionnaire were carefully designed to assist subjects in adapting to the hypothetical setting, the possible inability of some students to adapt to that situation must be acknowledged in interpreting research findings.

**Data Analysis**

Several analysis of variance designs were used to test for significant differences in perceived helpfulness ratings.
A 2 x 2 x 2 x 2 factorial design within the general population was used to test for differences in helpfulness ratings across the four dimensions of criticism.

A 3 x 2 x 2 x 2 design was employed to determine whether high, medium, or low levels of speech anxiety in students are related to significant differences in perceived helpfulness ratings for different types of criticism. The same design was used to analyze the relationship between student levels of exhibitionism and helpfulness ratings.

In order to determine whether student and instructor sex differences are related to significant differences in perceived helpfulness ratings, a six-factor, partially hierarchal design was used. In this design, the student sex factor was nested under instructor sex differences.

A seven-factor, partially hierarchal design was employed to analyze the relationships between student and instructor sex variables, levels of student speech anxiety, and differences in perceived helpfulness ratings. In this design, the student sex factor was nested under the instructor sex factor, and the speech anxiety factor was nested under both student and instructor sex. The same design was used to analyze student and instructor sex variables, levels of student exhibitionism, and related differences in helpfulness ratings for different types of criticism.

The Newman-Keuls Sequential Range Test was employed when appropriate to locate the significance found in each analysis of variance design.

**Results**

The questionnaire to which students responded contained two critical comments representing each of the four-way combinations possible under the
content analysis technique. Perceived helpfulness ratings of the two comments representing each four-way combination were combined into one total rating. Therefore, while students responded on a seven-point scale, the ratings used for statistical analysis had a possible range of two to fourteen. In order to conserve space, tables summarizing the results of all statistical tests utilized in this study are not included here. Tables summarizing the important follow-up tests are included in Appendix B. The minimal level of statistical significance accepted in this study was \( p < .05 \).

The subjects of this investigation perceived atomistic comments (\( \bar{x} = 10.70 \)) to be significantly more helpful than holistic comments (\( \bar{x} = 9.03 \)). This held true for all types of criticism. No interactions produced significant variance in student ratings for atomistic or holistic comments.

Subjects generally perceived impersonal criticism (\( \bar{x} = 10.23 \)) to be significantly more helpful than personal criticism (\( \bar{x} = 9.50 \)). Two significant interactions, however, affected student ratings of personal and impersonal criticism: (1) on positive comments, subjects did not indicate a preference for either a personal or impersonal approach (see Table 1); and (2) on atomistic comments concerning content, students rated personal criticism significantly more helpful than impersonal criticism (see Table 4).

The results of this investigation indicated that students generally rated positive criticism (\( \bar{x} = 10.20 \)) significantly higher than negative criticism (\( \bar{x} = 9.53 \)). This general finding, however, did not hold true for all types of comments. When criticism was impersonal, students did not indicate a preference for either positive or negative comments (see Table 1); furthermore, when impersonal criticism was directed toward delivery, negative comments were perceived to be significantly more helpful than positive comments (see Table 5).
When all impersonal, atomistic criticism was taken into consideration, negative comments were perceived to be significantly more helpful than positive ones (see Table 6).

The subjects of this investigation did not indicate any general preferences for the criticism of content ($\bar{X} = 9.82$) or delivery ($\bar{X} = 9.91$). When response to content and delivery criticism was analyzed in relationship to the other dichotomies, however, student perceptions of content and delivery comments were significantly different. For all impersonal comments, those concerning delivery were rated significantly higher than those dealing with content (see Table 2). While holistic comments were generally rated low, they were rated significantly higher if they concerned delivery rather than content (see Table 3). On the other hand, when all personal criticism was analyzed, comments concerning content were rated significantly higher than comments on delivery (see Table 2). This preference for criticism concerning content was also true for all atomistic comments (see Table 3). Two three-way interactions affect the interpretation of the above results: (1) for all personal, holistic criticism, comments about delivery were preferred over comments about content; and (2) for all impersonal, atomistic comments, criticism of delivery was preferred over criticism of content (see Table 4).

The analysis of results in this investigation did not reveal any significant two-way interaction between the content-delivery and positive-negative dichotomies. When these two dichotomies were analyzed in relationship to the atomistic-holistic dichotomy, however, two three-way interactions did emerge: (1) for all negative, atomistic comments, criticism of content was preferred over criticism of delivery; and (2) for all negative, holistic criticism, comments concerning delivery were preferred over comments about content (see Table 7).
The results observed in this study suggested two general conclusions. Negative, impersonal, atomistic criticism was rated significantly more helpful than other types of criticism. Negative, personal, holistic criticism was rated significantly less helpful than other types of criticism.

This investigation indicated that student levels of exhibitionism do not affect student perceptions of helpfulness. Student levels of anxiety, however, were related to significant differences in perceived helpfulness ratings. Highly anxious students rated criticism significantly more helpful than did students characterized by lower levels of anxiety (see Table 8). This finding was true for all types of criticism with one exception: when female students of male instructors were analyzed, the perceived helpfulness ratings of the low anxiety group were significantly higher than the ratings by the highly anxious (see Table 10).

The results of this study indicated that sex differences are also related to significant variation in perceived helpfulness ratings. Students of female instructors rated criticism significantly more helpful than students of male instructors. Also, female students generally rated criticism significantly more helpful than did male students. Female students of female instructors gave the highest ratings, while male students of male instructors gave the lowest (see Table 9). Although these findings were true for different types of criticism, there was one exception: female students characterized by low levels of anxiety rated criticism from male instructors significantly more helpful than criticism from female instructors (see Table 10).

**Discussion**

The results of this study indicate that students do not have a general preference for criticism of delivery or content. They apparently feel that
both types of criticism are equally important. Other critical dimensions of criticism, however, affected their response to comments about content and delivery. When an impersonal approach was used, the criticism of delivery was rated significantly more helpful than criticism of content. While personal comments were generally rated lower than impersonal ones, personal criticism of content was perceived as being significantly more helpful than personal comments concerning delivery. Perhaps these differences may be attributed to the fact that the delivery of a speech is a very personal matter. A person's method of delivery is a reflection of his total being and, while the content of the speech may also reflect personality, students may feel that it is easier to change and improve content without changing one's total being. Therefore, they may be more sensitive to the criticism of delivery. They may be receptive to a teacher's affective response or personal approach when the criticism concerns content, but when the more personal aspects of delivery are focused upon, students may strongly prefer an impersonal approach in which comments are related to cognitive principles rather than personal reactions.

Similar comparisons can be made when content and delivery criticism is analyzed in terms of the atomistic-holistic and positive-negative dichotomies. Since delivery may be considered personal and less appropriate for criticism, holistic comments, and especially negative, holistic comments (which were not perceived to be very helpful), were more acceptable when dealing with delivery than when criticizing content. Similarly, atomistic comments, and especially negative, atomistic comments (which were generally rated very helpful), were rated more helpful as criticism of content than as criticism of delivery. If content may be more easily improved than delivery, negative, atomistic criticism concerning content may be much more important to students than negative, atomistic criticism of delivery.
The results of the analysis of three-way interactions affecting student response to content and delivery criticism provide further support for the above interpretations. The preference for delivery criticism in holistic comments was stronger than the preference for content criticism when using a personal approach. Among all personal, holistic comments (generally rated quite low), delivery criticism was better received than content criticism. This is in keeping with the interpretation that comments which are generally considered not very helpful are more acceptable in the realm of delivery than they are in the realm of content. One of the most surprising results was that the preference for delivery criticism when using an impersonal approach was stronger than the preference for content criticism in atomistic comments. Among all impersonal, atomistic comments (generally rated quite helpful), delivery criticism was better received than content criticism. While this is somewhat contradictory to the above interpretation, it is in keeping with the interpretation that students are generally sensitive to delivery criticism. When delivery was involved, students held a strong preference for an impersonal approach in which comments were related to cognitive principles rather than personal reactions.

While the results of this investigation of student preferences seem to provide support for writers who recommend equal emphasis on content and delivery (McGraw, 1924; Balcer and Seabury, 1965; Dedmon, 1967), they also indicate the influence of other critical dimensions on student reception of content or delivery criticism. These results, however, should be considered tentative; this is the first investigation of this type, and the results should not be considered conclusive.
The results of this study which indicate that students generally rate positive criticism significantly more helpful than negative criticism might be interpreted as a natural human desire to receive praise. This preference for positive comments, however, did not hold true for all types of criticism. Positive comments were rated higher than negative comments only when the criticism was personal or holistic. Personal criticism and holistic criticism were generally perceived to be significantly less helpful than their respective counterparts. Thus, students generally indicated a preference to receive positive reinforcement only when the critical approach was one they did not perceive as being highly helpful. When an impersonal or atomistic approach was evident, the ratings of positive and negative criticism were not significantly different. There were also specific combinations in which negative criticism was perceived to be significantly more helpful than positive criticism. Students apparently prefer to receive both positive and negative comments. This study supports Albright's (1967) finding that negative criticism does not always elicit a negative personal reaction. This investigation has also revealed further information in determining what specific type of negative comment elicits the more positive response: negative, impersonal, atomistic criticism is rated significantly more helpful than other types of criticism; negative, personal, holistic comments are rated significantly less helpful than other types.

Student preferences indicate that instructors should include both positive and negative comments in their criticism. While the instructor may use any approach in making a positive comment, he should structure negative criticism carefully if he is concerned about the student's feeling toward the criticism. This study indicates that negative comments should not be personal or holistic in nature.
With two exceptions, the subjects involved in this study generally preferred an impersonal approach in criticism. When all positive criticism was considered, the ratings of personal and impersonal comments were not significantly different; and, for all content, atomistic criticism, personal comments were rated more helpful than impersonal ones. Evidently, if the criticism was positive, or if it concerned specific content, students were receptive to personalized teacher reactions. In other types of criticism, they preferred the impersonal approach.

The above results should not be interpreted as a conclusive argument to settle the basic controversy between instructors who favor the learning-based model of behavior change and those who favor the self model. While these results may offer some support for behaviorally oriented teachers who maintain that criticism should be as objective as possible, the results may simply reflect the fact that these students were accustomed to an impersonal approach. Sprague's (1971) descriptive analysis of the critique behavior of 21 college speech instructors indicated that only 6 percent of their comments were personal in nature. If this critical behavior is representative of all classrooms, the subjects of this investigation may have responded to personal criticism as they did simply because they were not accustomed to that approach. Only one thing is certain: the subjects of this investigation generally preferred the impersonal approach in which criticism was related to cognitive principles. This may be attributed to one or both of two possible causes: (1) the subjects of this investigation were simply more accustomed to the impersonal approach, or (2) students generally desire to have teacher evaluation and criticism remain on a business-like, impersonal level, free of personal feelings and attitudes.
The results of this investigation indicate that students perceive atomistic comments to be significantly more helpful than holistic criticism. Since this finding was true for all types of criticism, this study provides strong support for theorists who stress the importance of evaluating specific aspects of a speech performance (Kelly, 1965; Dedmon, 1967). Some instructors feel that the grade provides a holistic evaluation of the performance for the student. Others feel that a comment about the performance viewed as a whole should always be included in the critique. The results of this study provide some insight for the instructor who may include one or two holistic comments in an evaluation. Positive, impersonal, holistic comments were generally rated higher by students than were negative, personal, holistic comments. If the holistic comment involves personal or negative criticism, then it is probably best to refrain from making the comment and to simply let the grade serve as the overall evaluative statement.

The results of this study indicate significant variance in student perceptions of helpfulness which can be attributed to student anxiety levels and student and instructor sex differences. Rather than an indication of the instructors who are the most effective or the students who benefit the most from criticism, these results are probably more of an indication of student receptivity to criticism.

The female students involved in this study generally rated criticism significantly more helpful than did the male students. This finding supports Albright's (1967) conclusion that female students generally have better attitudes toward criticism than do males. Sprague (1971) found that female students generally receive more positive criticism than male students. That study indicated a relationship between being female, being liked by one's
instructor and receiving a high speech grade. It is not surprising, therefore, that female students are more receptive to criticism than are male students. The results of this study indicate that this finding holds true for all types of criticism.

In this study, students of female instructors generally rated criticism significantly more helpful than students of male instructors. This difference may be due to the stereotypical assertion about sex roles that women are more supportive than men. Female speech teachers generally write more positive comments than male teachers (Sprague, 1971). Students may be more receptive and open to criticism from female instructors simply because they are accustomed to receiving more positive support from them.

The results of this study indicate one exception to the finding of instructor sex effects just discussed: female students with low anxiety levels rated criticism significantly higher if they had a male instructor. This finding held true for all types of criticism. Evidently, female students who are highly confident do not need more positive support which a female instructor might give them. When this result is interpreted in light of Sprague's (1971) findings, it indicates that low anxious females prefer to receive more negative, impersonal criticism which they are likely to obtain from a task-oriented male instructor. It is interesting to note that this preference for a male instructor does not hold true for low anxious male students. Since male students generally receive more negative criticism than females (Sprague, 1971), they apparently prefer more positive reinforcement which a female instructor is likely to give, even if their confidence level is high.

When the perceived helpfulness ratings obtained in this study were analyzed according to student anxiety levels, it was found that the highly
anxious students rated criticism significantly more helpful than did students of medium or low anxiety. This finding was generally true for all types of criticism. It can probably be interpreted as an expressed need for reinforcement. Students with little confidence probably have a strong desire for feedback from others to determine their position in interaction. The more confident student, however, probably feels capable of doing a satisfactory job and therefore does not feel as great a need for feedback. He is probably more confident of accurate self-assessment in determining his own status. This result carries strong implications for theorists and instructors who encourage self-criticism. Highly anxious students may be less capable of making an adequate self-evaluation than students who are characterized by lower levels of anxiety. The highly anxious perceive instructor criticism to be significantly more helpful than other students do.

The results of this study indicate one exception to the difference attributed to anxiety levels. When all female students of male instructors were taken into consideration, the low anxious students rated criticism significantly more helpful than did students of medium or high levels of anxiety. Since the ratings of the medium and high anxiety females of male instructors were not significantly different from the ratings of other medium and high anxiety students, these differences can be attributed to the strong preference of low anxious female students for a male instructor. This influence does not require an explanation beyond the interpretation already presented. It must be noted, however, that this strong preference elicits ratings high enough to overshadow the main effect of student anxiety.

For all teachers who realize the importance of student attitudes and preferences, this study provides implications for the refinement of instructor
critique behavior. While the results of this study do not necessarily indicate what types of criticism actually result in a student's improving his communicative ability, they do reveal some important student preferences which may affect student attitudes in the learning environment. A student's receptivity to criticism and, perhaps, his utilization of that criticism may be greatly affected by the degree to which the criticism meets his needs and preferences. Many of the results of this study, however, must be considered tentative for two reasons: (1) the data of this research consisted of student response in a hypothetical situation; and (2) since this is the first exploratory study of this type, some of the results cannot be related to previous research; the study must be replicated and the results verified in future studies. Until further investigations are accomplished, it will be impossible for teachers to know exactly what to say or write or do that will result in the improvement of a student's communicative ability.
REFERENCES


OPERATIONAL DEFINITIONS OF TERMS USED TO CLASSIFY CRITICISM

Code as content:
Comments dealing with ideas, reasoning, selection of topic, limiting of topic.
Comments dealing with forms of support, reasoning, development of ideas.
Comments dealing with organizational pattern, introduction, conclusion, transitions.
Comments dealing with attention factors or audience adaptation.
Comments on creativity, humor, cleverness.
Comments on language style, general level of the speech.
Comments on whether speech met purpose or objectives of assignment.
Holistic comments which do not specifically mention delivery.

Examples
Good job on the content of this speech.
Too many generalities. This speech lacked concrete, interesting details.
This speech was both original and insightful.
I certainly wouldn't call this a persuasive speech. I'm sure you could have done better.
Good specific material was used to support the main ideas.
Your conclusion was probably the best one presented in class today. We won't forget those main points because they were emphasized clearly.
Overall, the content could have been better.
There was no evidence presented to back up the assertions.

Code as delivery:
Comments dealing with voice quality, rate, inflection, volume.
Comments dealing with pauses or timing.
Comments dealing with posture, stance, movement, gestures.
Comments dealing with use of visual aids, manuscript, podium, note cards, etc.
Comments dealing with poise, fluency, eye contact, nervousness, appearance, interaction with audience.
Comments dealing with time limit.
Comments dealing with mode of presentation implying that assignment specified a particular mode.
Comments on pronunciation, articulation, diction, or grammar.
Comments on physical arrangement, positioning, etc.
Examples

Your delivery today was much smoother than the last time. Why did you start leaning on the podium? You never used to do this.

Very good delivery!

You had a lot fewer vocalized pauses this time. We all have various problems with delivery. You need to work specifically on having more variety in your gestures.

Overall, weak delivery distracted from the ideas presented in the speech.

Generally, your style of presentation was too formal for this setting and topic.

This speech was successful because of effective delivery.

Code as positive:

Comments which praise, commend, or compliment the speaker or the speech.

Comments which use o.k., acceptable, fair or otherwise indicate that a standard was met, even minimally.

Comments indicating that a requirement of the assignment was present.

Comments indicating that an undesirable element (perhaps previously present) was absent.

Comments which note improvement—even if they refer to a reduction in frequency of an error.

Examples

Personally, I feel your relaxed conversational tone was perfect for the thrust of this speech.

This was your best speech so far.

I'm glad to see your improvement in delivery! It pays to practice.

The pause right after the New York example worked very effectively to emphasize the point.

Your conclusion was probably the best one presented in class today. We won't forget those main points because they were emphasized clearly.

Your delivery today was much smoother than the last time.

You had a lot fewer vocalized pauses this time.

This speech was successful because of effective delivery.

Code as negative:

Comments which criticize or mention a weakness in the speech or the presentation.

Comments which make a suggestion for an improvement.

Comments which indicate that a requirement of the assignment was not present.
Examples

Overall, the content could have been better. Compared to your classmates, your delivery still needs much improvement. Why did you start leaning on the podium? You never used to do this. Because of your technical background, you used terminology which we don't understand. Try to explain things in laymen's terms. Generally, you have made no improvement in delivery since the last time. I don't feel this speech was up to your potential. Overall, weak delivery distracted from the ideas presented in the speech. Generally, your style of presentation was too formal for this setting and topic.

Code as Personal:

Comments dealing with student improvement. Comments which show the teacher's own affective response. Comments which include the student's name. Comments that make a reference to instructor's personal life or attitudes. Comments that make a reference to student's personal life or attitudes. Comments that refer to other speeches or speakers in the class.

Examples

I was really pleased that you showed more over-all effort on this speech. Your reasoning was much more sound today -- a great improvement over your last speech. I find it difficult to remember your main points. You should have emphasized them more. I'm glad to see your improvement in delivery! It pays to practice. Personally, I feel your relaxed conversational tone was perfect for the thrust of this speech. Because of your technical background, you used terminology which we don't understand. Try to explain things in laymen's terms. Compared to your classmates, your delivery still needs much improvement. I don't feel this speech was up to your potential.
Code as impersonal:
Comments dealing with a principle of good speaking.
Comments which are more cognitive than affective.

Examples
You appear to be quite poised. This contributes to smooth delivery.
The main ideas were clearly and effectively phrased.
The pause right after the New York example worked very effectively to emphasize the point.
Good specific material was used to support the main ideas.
Slow down and articulate clearly. Some of your words and phrases are muffled and hard to understand.
Generally, the content of your speech was inadequately developed.
There was no evidence presented to back up the assertions.
The improper use of notes was a distraction which hindered your effectiveness.

Code as holistic:
Comments dealing with the total speech performance.
Comments dealing with whether or not speech met assignment.
Comments which make a general statement about overall content or delivery.

Examples
Good job on the content of this speech.
I was really pleased that you showed more over-all effort on this speech.
Very good delivery!
This speech was both original and insightful.
Generally, you have made no improvement in delivery since the last time.
I certainly wouldn't call this a persuasive speech. I'm sure you could have done better.
Generally, the content of your speech was inadequately developed.
This was your best speech so far.

Code as atomistic:
Comments dealing with some isolable element of the speech, its content, or its delivery.
Examples

Your reasoning was much more sound today -- a great improvement over your last speech. The main ideas were clearly and effectively phrased. We all have various problems with delivery. You need to work specifically on having more variety in your gestures.

Too many generalities. This speech lacked concrete, interesting details. Slow down and articulate clearly. Some of your words and phrases are muffled and hard to understand. I find it difficult to remember your main points. You should have emphasized them more.

You appear to be quite poised. This contributes to smooth delivery. The improper use of notes was a distraction which hindered your effectiveness.
Table 1
Newman-Keuls Sequential Range Test
Positive-Negative, Impersonal-Personal Dimensions

<table>
<thead>
<tr>
<th>Type of Criticism</th>
<th>Differences Between Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1. Positive, Impersonal ($\bar{x}=10.290$)</td>
<td>1.205**</td>
</tr>
<tr>
<td>2. Negative, Impersonal ($\bar{x}=10.168$)</td>
<td>1.273**</td>
</tr>
<tr>
<td>3. Positive, Personal ($\bar{x}=10.111$)</td>
<td>1.216**</td>
</tr>
<tr>
<td>4. Negative, Personal ($\bar{x}=8.895$)</td>
<td></td>
</tr>
</tbody>
</table>

*Each mean is based on 8 ratings made by 309 subjects
**Significant at p<.01

Table 2
Newman-Keuls Sequential Range Test
Content-Delivery, Impersonal-Personal Dimensions

<table>
<thead>
<tr>
<th>Type of Criticism</th>
<th>Differences Between Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1. Delivery, Impersonal ($\bar{x}=10.513$)</td>
<td>1.205**</td>
</tr>
<tr>
<td>2. Content, Impersonal ($\bar{x}=9.945$)</td>
<td>.637**</td>
</tr>
<tr>
<td>3. Content, Personal ($\bar{x}=9.697$)</td>
<td>.389**</td>
</tr>
<tr>
<td>4. Delivery, Personal ($\bar{x}=9.308$)</td>
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</tr>
</tbody>
</table>

*Each mean is based on 8 ratings made by 309 subjects
**Significant at p<.01
Table 3
Newman-Keuls Sequential Range Test
Content-Delivery, Atomistic-Holistic Dimensions

<table>
<thead>
<tr>
<th>Type of Criticism+</th>
<th>Differences Between Means</th>
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</thead>
<tbody>
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<td>4</td>
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<tr>
<td>1. Content, Atomistic ((\bar{x}=10.843))</td>
<td>2.044**</td>
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<tr>
<td>2. Delivery, Atomistic ((\bar{x}=10.557))</td>
<td>1.757**</td>
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<tr>
<td>3. Delivery, Holistic ((\bar{x}=9.265))</td>
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<td>4. Content, Holistic ((\bar{x}=8.799))</td>
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*Each mean is based on 8 ratings made by 309 subjects

**Significant at p<.01
### Table 4
Newman-Keuls Sequential Range Test
Content-Delivery, Impersonal-Personal, Atomistic-Holistic Dimensions

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</thead>
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<tr>
<td>1. Del. Imp. Atom.</td>
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<td>(x=11.203)</td>
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<tr>
<td>2. Con. Per. Atom.</td>
<td>2.742**</td>
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<td>(x=11.068)</td>
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<tr>
<td>3. Con. Imp. Atom.</td>
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<td>4. Del. Per. Atom.</td>
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<td>5. Del. Imp. Hol.</td>
<td>1.497**</td>
</tr>
<tr>
<td>(x=9.823)</td>
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<tr>
<td>6. Con. Imp. Hol.</td>
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<tr>
<td>(x=9.272)</td>
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<tr>
<td>(x=8.707)</td>
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<td>(x=8.327)</td>
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</table>

*Each mean is based on 4 ratings made by 309 subjects*

**Significant at \(p<.01\)**
Table 5
Newman-Keuls Sequential Range Test
Content-Delivery, Positive-Negative, Impersonal-Personal Dimensions

<table>
<thead>
<tr>
<th>Type of Criticism</th>
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<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
</tr>
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<tbody>
<tr>
<td>Del. Neg. Imp.</td>
<td>2.228**</td>
<td>1.425**</td>
<td>1.107**</td>
<td>.623**</td>
<td>.598**</td>
<td>.447**</td>
<td>.417**</td>
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<td>(x=10.722)</td>
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<td>Del. Pos. Imp.</td>
<td>1.812**</td>
<td>1.008**</td>
<td>.690**</td>
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<td>.182</td>
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<tr>
<td>Con. Pos. Imp.</td>
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<td>.660**</td>
<td>.177</td>
<td>.152</td>
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<tr>
<td>Con. Pos. Per.</td>
<td>1.605**</td>
<td>.802**</td>
<td>.483**</td>
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<td>(x=10.098)</td>
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<tr>
<td>Con. Neg. Imp.</td>
<td>1.122**</td>
<td>.318*</td>
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<td>(x=9.615)</td>
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<tr>
<td>Con. Neg. Per.</td>
<td>.803**</td>
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<tr>
<td>(x=9.297)</td>
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<td>(x=8.493)</td>
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</tr>
</tbody>
</table>

*Each mean is based on 4 ratings made by 309 subjects.
*Significant at p<.05
**Significant at p<.01
Table 6
Newman-Keuls Sequential Range Test
Positive-Negative, Impersonal-Personal, Atomistic-Holistic Dimensions

<table>
<thead>
<tr>
<th>Type of Criticism</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neg. Imp. Atom. (x=11.043)</td>
<td>3.703**</td>
<td>1.750**</td>
<td>1.350**</td>
<td>1.242**</td>
<td>.593**</td>
<td>.515**</td>
<td>.265*</td>
</tr>
<tr>
<td>2. Pos. Imp. Atom. (x=10.778)</td>
<td>3.438**</td>
<td>1.485**</td>
<td>1.085**</td>
<td>.977**</td>
<td>.328*</td>
<td>.250</td>
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</tr>
<tr>
<td>3. Pos. Per. Atom. (x=10.528)</td>
<td>3.188**</td>
<td>1.235**</td>
<td>.835**</td>
<td>.727**</td>
<td>.078</td>
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<td></td>
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<tr>
<td>5. Pos. Imp. Hol. (x=9.802)</td>
<td>2.462**</td>
<td>.508**</td>
<td>.108</td>
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<td>6. Pos. Per. Hol. (x=9.693)</td>
<td>2.353**</td>
<td>.400**</td>
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</table>

*Each mean is based on 4 ratings made by 309 subjects
*Significant at p<.05
**Significant at p<.01
Table 7
Newman-Keuls Sequential Range Test
Content-Delivery, Positive-Negative, Atomistic-Holistic Dimensions

<table>
<thead>
<tr>
<th>Type of Criticism</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Con. Neg. Atom.</td>
<td>2.975**</td>
<td>2.278**, 1.313**</td>
<td>1.078**</td>
<td>.393**</td>
<td>.380**</td>
<td>.200</td>
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<tr>
<td>(X=10.943)</td>
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<td>2. Con. Pos. Atom.</td>
<td>2.775**</td>
<td>2.078**, 1.113**</td>
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<td>.193</td>
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<td>(X=10.743)</td>
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<td>(X=10.563)</td>
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<tr>
<td>(X=9.865)</td>
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<tr>
<td>6. Con. Pos. Hol.</td>
<td>1.662**</td>
<td>.965**</td>
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<tr>
<td>(X=9.630)</td>
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<td>(X=7.966)</td>
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</table>

*Each mean is based on 4 ratings made by 309 subjects.

**Significant at p<.01
Table 8
Newman-Keuls Sequential Range Test
Student Levels of Speech Anxiety

<table>
<thead>
<tr>
<th>Source</th>
<th>Differences Between Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>1. High Speech Anxiety</td>
<td>.226**</td>
</tr>
<tr>
<td>(X=10.015)</td>
<td></td>
</tr>
<tr>
<td>2. Medium Speech Anxiety</td>
<td>.047</td>
</tr>
<tr>
<td>(X=9.836)</td>
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</tr>
<tr>
<td>3. Low Speech Anxiety</td>
<td></td>
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<tr>
<td>(X=9.789)</td>
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</tr>
</tbody>
</table>

*Each mean is based on 32 ratings made by 103 subjects
(32 ratings included response to all types of criticism)

* Significant at p<.05
** Significant at p<.01

Table 9
Newman-Keuls Sequential Range Test
Student and Instructor Sex Differences

<table>
<thead>
<tr>
<th>Source</th>
<th>Differences Between Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1. Female Students</td>
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</tr>
<tr>
<td>Female Instructors</td>
<td>(X=10.208)</td>
</tr>
<tr>
<td>2. Female Students</td>
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</tr>
<tr>
<td>Male Instructors</td>
<td>(X=10.013)</td>
</tr>
<tr>
<td>3. Male Students</td>
<td></td>
</tr>
<tr>
<td>Female Instructors</td>
<td>(X=9.915)</td>
</tr>
<tr>
<td>4. Male Students</td>
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</tr>
<tr>
<td>Male Instructors</td>
<td>(X=9.682)</td>
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</tbody>
</table>

*Each mean is based on 32 ratings made by 63 subjects
(32 ratings included response to all types of criticism)

* Significant at p<.05
** Significant at p<.01
**Table 10**  
Newman-Keuls Sequential Range Test  
Sex Differences and Student Levels of Speech Anxiety

<table>
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<th>Source*</th>
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<th>11</th>
<th>10</th>
<th>9</th>
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<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA-PS-KI (X=10.531)</td>
<td>.976**</td>
<td>.949**</td>
<td>.863**</td>
<td>.777**</td>
<td>.691**</td>
<td>.680**</td>
<td>.613**</td>
<td>.211</td>
<td>.211</td>
<td>.172</td>
</tr>
<tr>
<td>MA-PS-KI (X=10.504)</td>
<td>.949**</td>
<td>.922**</td>
<td>.836**</td>
<td>.750**</td>
<td>.664**</td>
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<td>.691**</td>
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<td>.738**</td>
<td>.652**</td>
<td>.566*</td>
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<td>.402</td>
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<tr>
<td>HA-MS-KI (X=10.320)</td>
<td>.766**</td>
<td>.738**</td>
<td>.652**</td>
<td>.566*</td>
<td>.480</td>
<td>.469</td>
<td>.402</td>
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<td>HA-MS-KI (X=9.918)</td>
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<td>.066</td>
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<td>.012</td>
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<td>LA-MS-KI (X=9.840)</td>
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<td>MA-MS-KI (X=9.668)</td>
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</tbody>
</table>

*Significant at p<.05  
**Significant at p<.01

*Each mean is based on 32 ratings made by 16 subjects (all types of criticism)

Key to source indices:
- **HA** = High Anxiety
- **MA** = Medium Anxiety
- **LA** = Low Anxiety
- **PS** = Female Students
- **MS** = Male Students
- **FI** = Female Instructors
- **MI** = Male Instructors