1992

Listening comprehension analysis in a midwestern community college

Mary M. Conrad

University of Northern Iowa

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Listening comprehension analysis in a midwestern community college

Abstract
At the post secondary level, listening comprehension is one of the most needed and least taught of the communication skills. This study compares whether a direct teaching method is more effective than an indirect method for improving listening comprehension. Twenty-four secretarial students in two business communications classes were the subjects of the study. There were fifteen females in group 1 and eight females and one male in group 2. The Watson-Barker Listening Test was used to pre- and post-test subjects’ listening comprehension.

Group 1 received listening instruction via a direct method; group 2 received instruction via an indirect method. T-test analysis of the pre- and post-test scores revealed no significant difference in either individual or group performance. Though not at a statistically significant level, two-thirds of the participants did increase their individual comprehension. Listening research at the post secondary level must continue in order to find the most efficient methods to improve students’ listening comprehension.
This Research Paper by: Mary M. Conrad

Entitled: Listening Comprehension Analysis in a Midwestern Community College

has been approved as meeting the research paper requirement for the Degree of Master of Arts in Education: General Educational Psychology.

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Graduate Faculty Advisor

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Head, Department of Educational Psychology & Foundations

5-7-92
Date Approved
LISTENING COMPREHENSION ANALYSIS IN A MIDWESTERN COMMUNITY COLLEGE

A Research Project
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Master of Arts in Education

Mary M. Conrad
University of Northern Iowa
June 1992
ABSTRACT

At the post secondary level, listening comprehension is one of the most needed and least taught of the communication skills. This study compares whether a direct teaching method is more effective than an indirect method for improving listening comprehension. Twenty-four secretarial students in two business communications classes were the subjects of the study. There were fifteen females in group 1 and eight females and one male in group 2. The Watson-Barker Listening Test was used to pre- and post-test subjects' listening comprehension. Group 1 received listening instruction via a direct method; group 2 received instruction via an indirect method. T-test analysis of the pre- and post-test scores revealed no significant difference in either individual or group performance. Though not at a statistically significant level, two-thirds of the participants did increase their individual comprehension. Listening research at the post secondary level must continue in order to find the most efficient methods to improve students' listening comprehension.
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CHAPTER 1
INTRODUCTION

"I know you believe you understand what you think I said, but I'm not sure you are aware that what you heard is not what I meant." This age-old maxim demonstrates one reason why this author perceives a need to study the issue of listening instruction at the community college level. Too many students appear to perform at the miscommunication level identified in the opening statement. In order to succeed in the classroom and ultimately in an occupation, community college students need to develop and refine their ability to listen.

In one of the early listening studies, Rankin (1928) determined that oral language was used much more often than written language and the listening component was used more often than the spoken. Witt (1950) reported that the accumulated time students engaged in listening behavior exceeded half their school day. The longer students remain in school, the greater are the demands made on their listening comprehension according to Nichols and Stevens (1957). McKibben (1982) maintained that listening is the first and most basic
channel throughout education. It is also the communication mode receiving the least amount of instructional time.

More and more community colleges are shifting the emphasis of their introductory business communications course from writing only to a more comprehensive oral and written approach. (Des Moines Area Community College catalog, 1989-90; Iowa Central Community College catalog, 1988-90; Kirkwood Community College catalog, 1989-90). There is ample evidence that this is a shift which needs to be made. Approximately 45 percent of an individual’s communication time is spent listening according to Rankin (1928) and Crittenden and Crittenden (1983). With so much time devoted to this communication activity, one would suppose that listening instruction is widespread in schools. Not so, according to Martin (1987), who maintains that of the four basic communication skills, speaking and listening are the most neglected in the school curriculum.
Statement of the Problem

This study purports to compare whether a direct teaching method is more effective than an indirect method for improving listening comprehension. The Watson-Barker Listening Test will be used for pre- and post-testing with t-test analysis. This research will provide answers to the following questions: Will listening instruction increase listening comprehension? Is a direct teaching method more efficacious than an indirect method for improving listening comprehension?

Hypotheses

1. Selected listening instruction will increase listening comprehension at the .05 level of significance.

2. The direct teaching method used in this study will increase listening comprehension more than the indirect teaching method at the .05 level of significance.

Definition of Terms

The following terms will be used throughout the study as defined herein:
**Communication.** A dynamic and reciprocal process which is effective to the extent that what the listener understands is what the speaker means (Brownell, 1986).

**Direct Teaching Method.** The method consisted of a pre-test the first class period, a lecture and discussion about listening and listening comprehension the second class period, nine class periods of teacher-directed listening activities, and a post-test the final class period.

**Indirect Teaching Method.** The method consisted of a pre-test the first class period, one class period of explanation and the assignment of a listening research project, and a post-test the final class period.

**Listening.** The process of receiving and assimilating ideas and information from verbal messages. Effective listening includes both literal and critical comprehension of ideas and information transmitted in oral language (Speech Communication Association, 1985).

**Listening Comprehension.** Listening for the purpose of understanding a message. "We listen to lectures, briefings, reports, conferences, oral papers, TV documentaries, film documentaries, etc., in order to
comprehend the information being presented" (Wolvin and Coakley, 1979, p. 9).

**Reading.** To examine and grasp the meaning of written or printed characters, words, or sentences. To utter or render aloud written or printed material (*The American Heritage Dictionary,* 1982).

**Speaking.** The process of transmitting ideas and information orally in a variety of situations. Effective oral communication involves generating messages and delivering them in standard American English with attention to vocal variety, articulation, and nonverbal signals (*Speech Communication Association,* 1985).

**Writing.** To form letters or words on a surface with a tool such as a pen or pencil. To compose and set down on paper words, sentences, and paragraphs (*The American Heritage Dictionary,* 1982).

**Limitations**

Participants were not randomly selected, instead the total enrollments in two introductory business communication courses of a selected midwest community college were used. There was no necessity for advising
students they were participants in a research project since all scores were confidential. Prior listening instruction could not be controlled because of previous business and/or language arts courses which participants had taken and which might have included instruction in listening.

Research Methodology

This study was designed to measure the effect of two different teaching methods on students' listening comprehension. The independent variable was teaching method; teaching method was operationally defined as either direct or indirect. The dependent variable was listening comprehension which was operationally defined as the pre- and post-test scores achieved on the Watson-Barker Listening Test.

Material about listening tests was obtained from the ERIC Clearinghouse on Reading and Communication Skills in an article entitled "Assessing Listening and Speaking Skills" (Mead and Rubin, 1985). The ERIC search via CD-ROM turned up six articles about listening testing instruments. The Fourth and Fifth Mental Measurements Yearbooks (Buros, 1953 & 1959)
included information about three of the older listening tests.

The Watson-Barker test was selected because it was developed in 1984 and included language with which business students would most likely be familiar. In addition, the test was appropriate for a community college audience and could be administered within the time constraints of a one-hour class. Finally, the data collected will be analyzed using a t-test to determine significance at the .05 level.

Past and present literature on listening will be presented in Chapter 2. Additional methodology directly related to the hypotheses will be presented in Chapter 3. The results of the data analysis will be presented in Chapter 4. The author's conclusions and recommendations will be presented in Chapter 5.
CHAPTER 2
REVIEW OF THE LITERATURE

This chapter will examine the implications of listening instruction for business communications students at the community college level. The following subheadings will be used to clarify the literature review: 1) Need for Listening Comprehension for Business Communications Students; 2) Availability of Instructional Methods and Materials to Teach Listening in a Business Communications Course; and 3) Listening Tests and Assessment of Listening Comprehension.

A search of the ERIC system using CD-ROM at the University of Northern Iowa Library provided related journal articles, papers presented at meetings, and instructional units. The list of descriptors included listening comprehension, community college listening comprehension, communication skills, community college communication skills, listening assessment, listening testing, teaching methods, listening teaching methods, listening activities, listening instruction, listening habits, and listening skills. A majority of the materials discovered were for elementary and secondary education levels; there appears to be a need for a
community college education study in this area. In addition, the ERIC Clearinghouse on Reading and Communication Skills, the Speech Communication Association, and the International Listening Association provided bulletins, pamphlets, and related background resources.

Need for Listening Comprehension for Business Communications Students

Paul Rankin (1928), a pioneer in the study of listening, ascertained in his original study of communication time that 70 percent of a person's total waking time is spent in some form of communication with listening ranking as the first form. Ralph G. Nichols (1948), considered by some to be the "Father of Listening Instruction," reports an even higher percentage of time communicating; this could be up to 80 percent with more than half of that devoted to listening. Several more recent studies support the premise that large amounts of a person's time are related to communication and much of that communication is listening (Crittenden & Crittenden, 1983; Delta Pi Epsilon, 1977; Wolvin & Coakley, 1979). Montgomery
insists, "We listen more than we do any other human activity except breathe" (West, 1983, p.2). Oral language which is comprised of listening and speaking stands out sharply as being one of the most used forms of communication.

Throughout education, listening is the main channel of classroom instruction. According to Wolvin and Coakley (1979), research indicates students are expected to listen 42 percent to 57.5 percent of their communication time (Bird, 1953; Markgraf, 1962; Wilt, 1950). The ability to listen attentively and critically is generic to achieving success in academic areas as well as life in general.

Much of today's students personal, social, and professional success will depend on their speaking and listening skills (Martin, 1987). In the classroom the printed word is losing ground to other communication forms such as lecture, discussion, videotapes, films, and closed circuit television. Strother (1987) believes the amount of listening students engage in may be increasing. By the time a student reaches the community college level, the "eye" has become the
favorite medium and the "ear" has become the neglected medium of learning (Benoit & Lee, 1988).

The review of the research through the late 70s seems to agree that listening is teachable and testable (Strother, 1987). Furthermore, the research suggests that listening is central to all learning. Listening is not merely "paying attention;" it is related to, but not the same as, intelligence; and it is probably related to thinking.

There are two primary problems with listening research:

1. There is no unified, agreed upon definition of listening, although there is general agreement that listening is a complex process including many skills such as attending to aural stimuli, understanding messages, remembering messages, interpreting messages, evaluating messages, and responding to messages. The aforementioned skills can be taught (Brownell, 1986).

2. Much of the research which has been done is at the elementary and secondary school levels.

With so much time devoted to the activity of listening, one should expect that a substantial amount of instructional time would be spent teaching students
to be better listeners. The Sperry Corporation, one of the most active businesses dealing with the listening effort, published a pamphlet entitled, "Your Personal Listening Profile." Information from that pamphlet depicts the order in which the four basic communication skills are learned: the degree to which they are used, and the extent to which they are taught (West, 1983) (Table 1). Included are:

Table 1
Four Communication Skills: Extent Used and Taught

<table>
<thead>
<tr>
<th>Communication Skill</th>
<th>Extent Used</th>
<th>Extent Taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>45%</td>
<td>Fourth</td>
</tr>
<tr>
<td>Speaking</td>
<td>30%</td>
<td>Third</td>
</tr>
<tr>
<td>Reading</td>
<td>16%</td>
<td>Second</td>
</tr>
<tr>
<td>Writing</td>
<td>9%</td>
<td>First</td>
</tr>
</tbody>
</table>

Listening, the major communication skill, receives the least amount of instructional attention in the above data.
Plattor (1987) reinforces this lack of training notion. She says our formal training in communication is backwards because writing, the communication form used least, receives the most instruction and listening, the communication form used most, receives the least instruction. The following table reveals this negative situation (Table 2):

**Table 2**
Comparison of Communication Methods by Amount of Training and Percentage of Time Used

<table>
<thead>
<tr>
<th>Mode of Communication</th>
<th>Formal Years of Training</th>
<th>Percentage of Time Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>12 years</td>
<td>9%</td>
</tr>
<tr>
<td>Reading</td>
<td>6-8 years</td>
<td>16%</td>
</tr>
<tr>
<td>Speaking</td>
<td>1-2 years</td>
<td>35%</td>
</tr>
<tr>
<td>Listening</td>
<td>0-1/2 years</td>
<td>40%</td>
</tr>
</tbody>
</table>

Listening ability plays an essential role in recent statements concerning education's need, reform, and direction in the United States. The College Board lists "speaking and listening as one of six basic
competencies needed for college." The National Council on Excellence in Education recommends that the teaching of English in high school should equip graduates to "... listen effectively and discuss ideas intelligently" (Boileau, 1983, p. 442). In 1978, the United States federal government, through the Elementary and Secondary Education Act, added listening and speaking to reading, writing, and arithmetic as literacy determinants and necessary basic competencies (West, 1983). The National Council of Teachers of English Curriculum Commission emphasizes the need to give listening equal instructional weight in conjunction with reading, writing, and speaking instruction (Steil, 1984).

The International Listening Association (ILA) was formed in 1979 through the collaboration of public schools, community colleges, universities, and businesses, in addition to consultants, publishers, and counselors. The association's mission is to conduct research, develop listening tests, and design model teaching programs (Nixon and West, 1989). The Clearinghouse on Reading and Communication Skills (1985) publishes a pamphlet which describes 38 ways to
teach listening skills. The Speech Communication Association (1985) and its task force on community college competencies has identified four literal comprehension and ten critical comprehension listening abilities. The past decade has seen a growth in educational concern about the need for listening comprehension.

In addition to education's concern, the literature points to a concern by business to hire employees with good listening skills. Listening is the most important communication skill for entry level positions according to an examination of 25 different studies (Smetzer & Watson, 1985). As early as 1957, Ralph Nichols conducted a study of white collar workers which showed they spend at least 40 percent of their day listening. An analysis of their listening effectiveness indicated that without training only about 25 percent of white collar workers listening to a formal talk were able to grasp the speaker's central idea (Nichols, 1957). In a more recent study, workers listened to a 10-minute presentation and understood, correctly evaluated, and retained about 50 percent of what was heard. Within 48
hours, the retention rate had decreased to 25 percent (Gibbs, Hewing, Hulbert, Ramey, & Smith, 1985).

In a study of the communication perceptions of chief executive officers, personnel managers, and training directors of 72 corporations with over 1,000 employees, listening was determined to be the most important of the four stated communication forms and also the communication competency considered most deficient (Carstens, 1982). Personnel officers from 250 of the largest corporations listed by Fortune said they expect employees to be skilled in public speaking, listening, and group discussion (Martin, 1987). Corporations as diverse as Celestial Seasoning, Inc. (herbal tea) and Sperry Corp. (business equipment) require their employees to take listening training (Martin, 1987).

Communication consultant Germaine Knapp, who lists as clients Xerox and Eastman Kodak, reports that effective listening is one of the strongest assets in professional life today (Harris, 1989). John Kelso, a Davidson College psychology professor who conducts communication workshops for IBM and Chrysler Corp., calls listening a "fundamental skill" needed by
managers (Kiechel, 1987). Lyman K. Steil, a former University of Minnesota professor and current president of Communication Development Inc., suggests the need for improved listening in business as follows: "Overall, if each of America's more than 100 million workers prevented just one $10 mistake by better listening, their organizations would gain over $1 billion in profits" (Steil, 1980, p. 66).

Fundamental to the purported need for students and business employees to possess good listening skills, the problem is where will those skills be acquired. As previously noted, little communication instructional time is spent developing the skills of listening. Education should be able to assist in the listening instruction deficit. One problem with this is that few teachers have had listening instruction and/or comprehension related to teaching. It is difficult to teach that which is not first a known commodity. Teachers need to be good listeners themselves and must be able to demonstrate effective listening procedures. Teachers have had minimal listening instruction at the preservice professional level.
Swanson (1986) surveyed 15 textbooks in the few teacher education programs that offer communication skills training. Of a total of 3,074 pages of text in those 15 books, only 82 pages mentioned listening. The best summary of a modern review of listening research is that "... given stable personality and average I.Q. there is not a particular personality trait or intelligence level that excludes us from being good listeners. Listening is a skill that can be learned" (Benoit & Lee, 1988, p. 229). The mandate from the federal government and the public in general is to teach listening as a basic skill. How well can this be done?

Availability of Instructional Methods and Materials to Teach Listening in a Business Communications Course

Lundsteen (1984) recommends using a questionnaire to determine where a school or school district is in relation to listening instruction. The questionnaire Dr. Lundsteen developed will provide school personnel with information about listening instruction already in place; the type of instruction being done and by whom; the teachers' listening knowledge and abilities;
and the teachers' perceived training needs. With this information available, school personnel are better prepared to decide what methods and materials to use in providing listening instruction.

In an article, "Teaching Teachers to Listen," Wolvin (1984) recommends the use of a 13-point checklist of listening behaviors developed by Lundsteen. Wolvin believes that such self-analysis is a helpful first step in developing competence as a listening teacher. He maintains that teachers spend too little time in the classroom as listeners. Furthermore, if the goal is improvement of students' listening performance, teachers must be able not only to teach but also to demonstrate good listening skills. Teachers should use more indirect teaching methods to encourage better student listing skills. With a less teacher-centered approach, students will be given opportunities for inquiry and self-expression. The benefit for students is increased time speaking and listening to others; the benefit for teachers is increased opportunities for listening and/or modeling of good listening skills.
Rubin (1985) has suggested two models for teaching listening. The first model includes a self-contained communication course which at the secondary level might be a speech class and at the community college level might be a speech or business communications course. The type of course Rubin envisions would have its primary emphasis on public speaking and listening and would concentrate less on generic skills like audience analysis, small-group decision making, and interpersonal communication skills.

Rubin's second model uses communications lessons in other subjects as a means of improving student's listening comprehension. This approach is aimed at infusing listening instruction throughout other content areas on a systematic basis. Similarly, Steil (1984) believes that listening development must be expanded across the curriculum. He states emphatically that the only way to develop worthwhile listening improvement programs is to require participation from teachers in all content areas.

Swanson (1984) sees basically two approaches to teaching listening. One is to teach about listening by focusing on theory, and the second is to teach the
skills of listening by focusing on the practice of behaviors and techniques which make a listener more effective. Although he finds some merit in the first approach, he argues for implementation of the second. A third alternative might be a communications course with practical design based on theory blending Swanson's dichotomous positions.

Specific examples of available materials discovered in the literature are a 1986 book by Judi Brownell, Building Active Listening Skills, which provides both theory and practical application including information about the communication process and several approaches to listening (Brownell, 1986). Brownell (1986) provides seven current listening models. At the end of each chapter of this book, there are several listening activities appropriate to the chapter's content, extensive endnotes for sources cited in the chapter, and recommended readings for further information.

A key set of general references are the ERIC Clearinghouse on Reading and Communication Skills and the Speech Communication Association which jointly publish two booklets, Listening Instruction and Speech
Communication Activities in the Writing Classroom.
Both sources provide information about listening theory; activities for listening improvement; and bibliographies of listening resources (Blankenship & Stelnzer, 1979; Wolvin & Coakley, 1979).

In June, 1988, the Iowa Department of Education, printed a guide, Do You Hear What I Hear? Developing Student Listening Skills, by Dr. Mary Bozik, Associate Professor of Communications at the University of Northern Iowa, to acquaint educators with the process of listening and to suggest ways in which listening instruction could be included in the curriculum (Bozik, 1988). The booklet contains a bibliography of publications about listening and resources for teaching listening. Dr. Bozik encourages schools and teachers interested in improving listening instruction to consider in-service programs on the topic.

There are three other listening materials sources which incorporate listening strategies and activities helpful to the community college teacher preparing to teach listening skills. Those sources are McKibben (1982) "Listening Instruction: How It Improves College Reading;" Eads (1983) "Technical Communications I;"
and University of Northern Iowa, Cedar Falls, School of Business (1986) "Communication: Listen, Speak, Write, Use."

Listening Tests and Assessment of Listening

Comprehension

At the center of a worthwhile assessment is the definition of the domain of knowledge, skills, or attitudes to be measured (ERIC Clearinghouse on Reading and Communication Skills, 1985). Listening is in part the process of receiving and assimilating ideas and information from verbal messages. Listening comprehension is listening for the purpose of understanding a message. Listening and listening comprehension are receptive skills which incorporate both a physical (hearing) and analytical (understanding) process.

Listening tests typically involve students listening to a passage and then answering multiple-choice questions addressing literal and inferential comprehension (ERIC Clearinghouse on Reading and Communication Skills, 1985; Roberts, 1985). According to Rubin & Roberts (1987), important elements in
listening tests are: (1) the listening stimuli; (2) the questions used; and (3) the test environment. Listening stimuli should represent typical oral language and should model the language students might typically hear in the classroom, in the media, or in conversations. In regard to questions, multiple choice items should focus on the most important aspects of the language passage and not trivial details. Finally, the testing environment should be free of external distractions. If stimuli is presented from audio cassette tape, the sound quality should be excellent; if stimuli is presented by a test administrator, the material should be clear with appropriate volume and speaking rate.

Three references analyzed current listening tests. The tests are as follows: the Watson-Barker Listening Test; the Kentucky Comprehensive Listening Test; the Brown-Carlsen Listening Comprehension Test; and the Communication Competency Assessment Instrument (Backlund, Brown, Gurry, & Jandt, 1982; Curriculum Review, 1984; Rubin & Roberts, 1987). The Watson-Barker Listening Test was chosen because it could be administered in one 60-minute class period. It was
available in audio cassette tape format to eliminate test administrator reliability questions; the vocabulary level was clearly ninth grade and above.

Summary

Listening skills including listening comprehension are important for all levels of school success. In addition, business and related jobs demand employees with good communication skills. These facts are indicative that community college business communications courses are responsible for providing listening instruction. With the recent inclusion of oral communication as a basic skill, new methods and materials are being developed to help schools and teachers meet listening instructional needs. The related literature in this study indicates more and better listening tests should be available to measure students' listening performance. In Chapter 3 the literature will be applied to the related research process.
CHAPTER 3

METHODOLOGY

The purpose of this chapter is to explain the implementation of this pre-test, post-test design. Information about the population of the two business communications groups will be provided. Reliability and validity of the Watson-Barker Listening Test, the test which was used for pre- and post-testing, will be reviewed. The methods of data collection and data analysis will be described.

Population

The twenty-four subjects for this study were enrolled in two business communications classes at a midwestern community college. All students were enrolled in a general secretarial program at the college. There were twenty-three females and one male; fifteen females in section 1 and eight females and one male in section 2. The primary language of all female students was English; the primary language of the male student was Japanese. All students indicated prior exposure to listening as a discussion topic, but they
had no prior listening instruction. None of the students had ever taken an educational listening test. Students were not told they were participating in a research project. Students ranged in age from nineteen to thirty-four (Table 3).

Table 3
Statistics Concerning Age of Study's Population

<table>
<thead>
<tr>
<th>Age</th>
<th>No. of Students</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-24</td>
<td>14</td>
<td>58%</td>
</tr>
<tr>
<td>25-30</td>
<td>7</td>
<td>29%</td>
</tr>
<tr>
<td>31-35</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100%</td>
</tr>
</tbody>
</table>

The average age of the groups overall was 23.8 years. The average age of the first group (direct method) was 24.3 years and of the second (indirect method) group was 22.9 years. There were 23 females and 1 male. Secretarial programs at community colleges serve a primarily female population.
Instrument

The Watson-Barker Listening Test was developed by Kittie W. Watson and Larry L. Barker in 1982 and pilot tested over a two-year period. According to the authors, the specific purpose of this test compared to other current listening tests was to develop a measurement of listening abilities for college students and adults, particularly those involved in business and industry (Watson & Barker, 1984). Three sources in the literature review (Roberts, 1985; Rubin & Roberts, 1987; Ward, 1984) support the authors' contention that the Watson-Barker Listening Test is appropriate for college and adult audiences.

Reliability and Validity

This test has been used with more than 10,000 students (see Appendix A for Normative Data). The researcher performed the Pearson Product Moment Correlation test between the pre-test and post-test scores and found a moderately positive correlation of 0.678. These two factors provide limited reliability for this instrument.
Content validity for the Watson-Barker Listening Test was assessed through use of a panel of listening experts to judge the validity of each item. This assessment is mentioned in the Facilitator's Guide which accompanies the test, and content validity was confirmed by the researcher in a telephone interview with Kittie W. Watson, one of the test's authors, in December, 1989. "Additional support for the validity of this instrument has been generated by Rubin and Shepherd (1985) and by Applegate and Campbell (1985). Both studies link this instrument with other listening measurement tests" (Roberts, 1985, p. 7). No inferential statistics regarding validity were available from any of these sources.

A final consideration in the selection of the Watson-Barker Listening Test was that it is available in two forms which makes it usable for research of a pre- and post-test design. The test's listening material is provided from an audio cassette with a series of tape recorded messages followed by questions about the messages. The test is divided into five sections, each representing a different type of listening situation. A narrator provides special
instructions at the beginning of each section. Each person taking the test is given a blank sheet of paper and a test booklet with the multiple choice questions concerning each taped message. The blank sheet of paper serves as a masking sheet to cover upcoming questions.

Each of the five parts of the test has ten multiple choice questions worth two points each. Part I measures the listener’s skill in interpreting message content. Part II presents various dialogues or conversations and measures understanding of conversations. Part III requires listener’s skill in understanding and remembering information from brief lectures. Part IV measures listener’s skills in evaluating how something was said rather than what was said. Finally, Part V measures the listener’s ability to follow instructions and/or directions. There are 100 possible points on the test, 20 points per part. The test developers suggest the following scale for interpreting a listener’s overall listening ability (Watson & Barker, 1984) (Table 4):
Table 4

Scale for Interpreting Test Results

<table>
<thead>
<tr>
<th>Score</th>
<th>Evaluation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>Excellent</td>
<td>Upper 1%</td>
</tr>
<tr>
<td>80-88</td>
<td>Very good</td>
<td>Upper 10%</td>
</tr>
<tr>
<td>70-78</td>
<td>Good</td>
<td>Upper 25%</td>
</tr>
<tr>
<td>60-68</td>
<td>Average</td>
<td>Upper 50%</td>
</tr>
<tr>
<td>50-58</td>
<td>Below average</td>
<td>Lower 50%</td>
</tr>
<tr>
<td>40-48</td>
<td>Poor</td>
<td>Lower 25%</td>
</tr>
<tr>
<td>0-38</td>
<td>Very poor</td>
<td>Lower 10%</td>
</tr>
</tbody>
</table>

The test was presented at the International Listening Association Convention in Minneapolis in 1982 and responses and feedback from convention participants were analyzed. Two forms of the test were then designed; Form A was recorded for pilot testing. Watson & Barker (1984) administered and analyzed Forms A and B of the tests for more than 10,000 subjects who represented a variety of states and geographical regions.
Procedure

A University of Northern Iowa Human Subjects Review form was submitted and approved at the Graduate College at the University of Northern Iowa. Permission was granted by the Vice President of Curriculum and Instruction and by the appropriate Department Head at a selected midwestern community college to conduct this study using two business communications classes composed of general secretarial students. Form A of the Watson-Barker Listening Test was administered as a pretest in January, 1990.

Following the pretest, the fifteen students in section 1 of business communications were provided listening instruction using the direct method. Students first analyzed their own listening using a listening questionnaire developed by Judi Brownell (1986). The completed questionnaire was evaluated and a listening profile developed for six listening components: hearing, understanding, remembering, interpreting, evaluating, and responding. Another activity involved discussion of different types of listening situations including listening in the classroom, on the job, at home, and with friends to
determine whether there is some connection with how we listen in different contexts or environments; students tried to determine their motivation to listen in different settings. A third activity involved the use of the effective and ineffective listening characteristics identified by Ralph Nichols (1957). Students were provided the list of twelve characteristics and selected those they felt were effective and those that were ineffective. After categorizing the characteristics, students were then asked to write a brief paragraph defending each choice. These paragraphs were used to facilitate a group discussion to attempt some consensus on what characterizes a good listener and what characterizes a poor listener. In all, students in this section were involved in ten hours of classroom instruction about listening similar to the activities described above, excluding the pre- and post-tests.

The last two weeks of listening instruction students in section 1 maintained a journal noting the types of listening they were doing and the misunderstandings or confusion that resulted from poor listening. The last class before taking the post test
was spent in reviewing the journals and determining when most listening problems occurred, whether there were particular people with whom the students had trouble listening, and which types of listening problems recurred. The culmination of this activity was goal setting in which students established personal goals for future listening improvement.

Following the pretest, the nine students in section 2 of business communications were involved in an indirect teaching method about listening. First, they toured the community college's library and were instructed in the use of the ERIC database. Next, they were given five questions about listening and directed to research the answers and prepare a report of at least three pages using three or more sources. The five original questions provided students in this group were:

1. What is listening? In your research find what you believe to be the best definition of listening. Include the definition and your analysis of it in your paper. Do not use a dictionary definition.

2. What are the characteristics of an effective listener? an ineffective listener?
3. Is there a relationship between listening and effective oral communication? If yes, what kind of relationship; if no, why not?

4. Are there differences between active listening and passive listening? Is one kind of listening more effective than another? If yes, when and why?


After the initial library tour, students were given three class periods to do library research. The papers were due in two weeks. The day the papers were submitted, each student gave a three-minute oral presentation about what he/she had learned. In February, 1990, all students in sections 1 and 2 of business communications took Form B of the Watson-Barker Listening Test as a post-test.

The t-test was used to determine if significant statistical differences at the .05 level in listening comprehension exist between business communications classes at the selected midwestern community college. Answers to the questions, "Will listening instruction increase listening comprehension?" and "Is a direct
teaching method more efficacious than an indirect method for improving listening comprehension?" will be provided in Chapter 4. Based on the results of these tests, the research hypotheses will be accepted or rejected.
CHAPTER 4

RESULTS OF THE STUDY

This chapter presents the results of the data analysis of the Watson-Barker Listening Test used to pre- and post-test listening comprehension in business communications students at a midwestern community college. The emphasis of the chapter is the analysis of the difference between pre- and post-test scores when both direct and indirect teaching methods were utilized.

Data Analysis and Findings

T-tests were used to determine whether listening instruction increased listening comprehension. Results of t-tests indicated that neither of the two teaching treatments increased listening comprehension significantly. Table 5 shows the mean and the t-test results for each group's total pre-test score.

The mean for the direct method group's pre-test was 58.133 compared to a mean of 57.333 for the indirect method group's pre-test. This indicates that before listening instruction the two groups did not differ significantly in listening comprehension. For a
significant difference to have been present before instruction, the probability of 2.160 would have to have been reached. Therefore, the probability of .885 which occurred indicates that on the pre-test the two groups did not differ at the .05 level of significance.

Table 5
Means and T-test of Pretest Total Scores by Group

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>15</td>
<td>58.133</td>
<td>10.623</td>
<td>13</td>
<td>.15</td>
<td>.885</td>
</tr>
<tr>
<td>Indirect</td>
<td>9</td>
<td>57.333</td>
<td>14.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( p < .05, \ t = 2.160 \)

Table 6 shows the mean scores and the t-test for each group’s total post-test score. The mean for the direct method group’s posttest was 62.000 compared to 58.667 for the indirect method group’s posttest mean. To accept the hypothesis that listening instruction increases listening comprehension would require probability of 2.228. The probability of .585 indicated that on the posttest the two groups did not
differ significantly at the .05 level. Therefore, the hypothesis that listening instruction will increase listening comprehension at the .05 level is rejected.

Table 6
Means and T-test of Posttest Total Scores by Group

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>15</td>
<td>62.000</td>
<td>7.892</td>
<td>10</td>
<td>.56</td>
<td>.585</td>
</tr>
<tr>
<td>Indirect</td>
<td>9</td>
<td>58.667</td>
<td>16.543</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05, t = 2.228

The t-test was utilized to determine whether the direct teaching method was more efficient than the indirect method in increasing listening comprehension. Table 7 indicates the mean differences between each group's score.

The mean for differences between treatments was 3.866 for the direct method and 1.333 for the indirect method. To accept the hypothesis that the direct teaching method is more effective than the indirect teaching method for increasing listening comprehension
would require a probability of 2.160. The probability of .566 indicated that the two groups did not differ significantly at the .05 level. Therefore, the hypothesis that the direct teaching method is more efficacious than the indirect teaching method for increasing listening comprehension is rejected.

Table 7
Means and T-test of Differences between Treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>15</td>
<td>3.8667</td>
<td>8.467</td>
<td>13</td>
<td>.59</td>
<td>.566</td>
</tr>
<tr>
<td>Indirect</td>
<td>9</td>
<td>1.333</td>
<td>11.136</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p < .05, t = 2.160

Analysis of Individual Scores

Although the difference between pre- and post-test scores was not significant at the .05 level and the difference between groups was not significant at the .05 level, there did appear to be more improvement for students in the direct teaching method group when comparing individual scores. Table 8 will highlight
this finding for those students receiving listening instruction from the direct teaching method; Table 9 will highlight this finding for those students receiving listening instruction from the indirect teaching method.

Table 8 sets forth the pre-test and post-test scores for the 15 students in the direct teaching method group. The final column of the table labeled Difference shows the gain or loss in comprehension for each student. Numbers in that column with a minus sign (-) represent a loss in comprehension; numbers with a plus sign (+) represent an increase in comprehension. Table 8 shows that with the direct teaching method 10 students' (66 percent of the direct group) listening comprehension increased, 2 students' (14 percent of the direct group) listening comprehension remained the same, and 3 students' (20 percent of the direct group) listening comprehension decreased. Although this difference is not significant at the .05 level, it is difficult to dismiss improvement entirely when two-thirds of the group's listening comprehension did increase. Because of the importance of listening effectiveness for classroom and business success, some
improvement—even if not statistically significant—is better than no improvement.

Table 8

Group 1 (Direct Method) Pre- and Post-test Scores and Differences

<table>
<thead>
<tr>
<th>Student</th>
<th>Pre-Test Total</th>
<th>Post-Test Total</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>74</td>
<td>68</td>
<td>-6</td>
</tr>
<tr>
<td>2</td>
<td>72</td>
<td>56</td>
<td>-16</td>
</tr>
<tr>
<td>3</td>
<td>72</td>
<td>66</td>
<td>-6</td>
</tr>
<tr>
<td>4</td>
<td>70</td>
<td>70</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>64</td>
<td>70</td>
<td>+6</td>
</tr>
<tr>
<td>6</td>
<td>62</td>
<td>66</td>
<td>+4</td>
</tr>
<tr>
<td>7</td>
<td>58</td>
<td>70</td>
<td>+12</td>
</tr>
<tr>
<td>8</td>
<td>56</td>
<td>66</td>
<td>+10</td>
</tr>
<tr>
<td>9</td>
<td>56</td>
<td>72</td>
<td>+16</td>
</tr>
<tr>
<td>10</td>
<td>56</td>
<td>56</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>48</td>
<td>60</td>
<td>+12</td>
</tr>
<tr>
<td>12</td>
<td>48</td>
<td>58</td>
<td>+10</td>
</tr>
<tr>
<td>13</td>
<td>48</td>
<td>50</td>
<td>+2</td>
</tr>
<tr>
<td>14</td>
<td>48</td>
<td>54</td>
<td>+6</td>
</tr>
<tr>
<td>15</td>
<td>40</td>
<td>48</td>
<td>+8</td>
</tr>
</tbody>
</table>

Table 9 indicates that with the indirect teaching method 4 students’ (44 percent of the indirect group) listening comprehension increased and 5 students’ (56 percent of the indirect group) listening comprehension decreased. Because two and a half times as many
students increased their listening comprehension in the direct teaching method group, there does appear to be more benefit from that method than the indirect teaching method although not at a statistically significant level.

Table 9
Group 2 (Indirect Method) Pre- and Post-test Scores and Differences

<table>
<thead>
<tr>
<th>Student</th>
<th>Pre-Test Total</th>
<th>Post-Test Total</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>70</td>
<td>72</td>
<td>+2</td>
</tr>
<tr>
<td>2</td>
<td>68</td>
<td>66</td>
<td>-2</td>
</tr>
<tr>
<td>3</td>
<td>68</td>
<td>58</td>
<td>-10</td>
</tr>
<tr>
<td>4</td>
<td>68</td>
<td>66</td>
<td>-2</td>
</tr>
<tr>
<td>5</td>
<td>64</td>
<td>58</td>
<td>-6</td>
</tr>
<tr>
<td>6</td>
<td>54</td>
<td>66</td>
<td>+12</td>
</tr>
<tr>
<td>7</td>
<td>52</td>
<td>66</td>
<td>+14</td>
</tr>
<tr>
<td>8</td>
<td>42</td>
<td>60</td>
<td>+18</td>
</tr>
<tr>
<td>9</td>
<td>30</td>
<td>16</td>
<td>-14</td>
</tr>
</tbody>
</table>

Fourteen of the 24 students involved in this study or 58.3 percent of the participants increased their listening comprehension. The average gain of these 14 was 9.42 points or almost 10 percent of the total test score. Eight of the 24 students involved in this
study or 33.3 percent of the participants decreased their listening comprehension. The average loss of these 8 was 6.2 points or approximately 6 percent of the total test score. Two of the 24 students involved in this study or 8.4 percent of the participants attained the same score on the pre-test as on the post-test demonstrating neither gain nor loss in listening comprehension.

Although the statistical analyses of the results of this study do not support either of the study's hypotheses, some caution is necessary when interpreting these findings because 58.3 percent of the participants did achieve gains in listening comprehension though not at the .05 level of significance. In other words, although 58.3 percent of these participants increased their listening comprehension, their gains were not significant at the .05 level. Chapter 5 will address conclusions and recommendations.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Listening comprehension is important for school as well as employment success. Business communications courses at the community college level could be one vehicle for providing instruction to improve students' listening comprehension. This study examined the aforementioned educational concern at a selected midwestern community college as to whether listening instruction improved listening comprehension and if a direct teaching method was more efficacious than an indirect teaching method.

Summary

Listening instruction needs to be incorporated into community college curricula to enable students to perform better in the classroom and at the worksite. This is perhaps the last formal opportunity to improve listening performance in school for those students who enter the workforce upon completion of community college. For those students who transfer to a four-year college or university, the community college which provides listening instruction may enable those
students to earn higher grades and perform better academically in a university setting.

Form A of the Watson-Barker Listening Test was used to pre-test the listening comprehension of the twenty-four students enrolled in two business communications courses at the selected midwestern community college. The fifteen students in the first group received listening instruction via the direct teaching method. The nine students in the second group received listening instruction via the indirect teaching method. Form B of the Watson-Barker Listening Test was used as the post-test. The results of these two tests for these two groups were analyzed using the t-test at the .05 level. Analysis of individual scores for each group indicated that 66 percent of the students in the direct teaching method group improved their listening comprehension although not at the .05 level of significance. In the indirect teaching method group, 44 percent of the students improved their listening comprehension although not at the .05 level of significance. One factor which could account for more of the direct teaching method group increasing its listening comprehension was researcher expectation.
Even though the researcher did not state an expectation about either teaching method, she did expect the direct method would be more effective. Perhaps that expectation subtly transmitted itself to the direct teaching method group. The most likely variables for the increases for both groups not being significant were the limited listening background of the researcher and the small sizes of the two groups.

The time frame for this study was four weeks covering twelve class periods. The results might have been different if the study had been conducted for an entire semester. An additional consideration might be having listening instruction infused into the course content of several community college courses to provide students with appropriate and more frequent feedback regarding their listening behavior. A related factor might be that few teachers have had adequate listening training or instruction.

Conclusions

Business communications instructors are faced with the challenge of providing listening instruction in order for students to be successful in the classroom.
and in the workplace. The following results can be used to facilitate this instructional need:

1. The two groups of business communications students at this midwestern community college did not significantly improve their listening comprehension by participating in listening instruction. Yet, educators and business people indicate the need for students and employees with improved listening comprehension.

2. The direct teaching method was not significantly more effective than the indirect method in improving listening comprehension. However, even though the gains were not significant at the .05 level more students improved their listening comprehension through the direct method providing some evidence as to its effectiveness.

3. If used, these results should be viewed cautiously because of the small numbers in each group, reliability and validity uncertainty of the testing instrument, and lack of knowledge of other variables that might influence students' listening comprehension. Nonetheless, education and researchers need to move ahead on this front because of the importance of
listening comprehension in students' school and workplace success.

Recommendations

1. Based on the review of the current literature and the findings of this study, many further listening studies with larger samples are needed to determine the most effective teaching methods to improve listening comprehension.

2. Listening research needs to continue with much more emphasis. However, definitions of listening and listening comprehension need to be agreed upon. Perhaps, the International Listening Association, as it enters its second decade of existence, will be able to address this need.

3. Research using the various listening tests needs to continue in order to provide needed reliability and validity for these instruments. The more times these tests are used and the more consistency in the results achieved, the higher the reliability will be. To increase the validity of listening tests requires that the definition of listening and listening comprehension be somewhat
standardized so that researchers can determine whether the tests are valid in that they are measuring what they purport to measure.

4. Research needs to continue to determine the variables that most directly influence listening comprehension. Variables such as length of instruction, type and breadth of instruction, intelligence of listeners, and attitudes of listeners need to be controlled to learn if one is more important than another.

5. Research into short-term and long-term longitudinal listening comprehension gains needs to be conducted.

6. These findings should be discussed with other community college instructors informally at professional meetings and formally by publication in professional journals or a presentation at a meeting.

7. These findings should be communicated to Iowa Department of Education consultants to keep them updated on the progress of listening instruction in the state.

8. The findings of this study will be employed to examine the business communications course content at a
selected midwestern community college to better meet the needs of the students enrolled in these courses.

Educators, business leaders, and legislators agree that listening is one of the four basic communication skills. In few cases are schools doing an adequate job of teaching students how to listen and further how to listen effectively. It is incumbent on educators that they learn effective listening strategies themselves and impart those strategies to their students. A grassroots commitment to teach all students appropriate communication skills in general and to teach efficient listening in particular is necessary to remove the listening instruction deficit which exists in classrooms today.
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NORMATIVE DATA ON WATSON-BARKER LISTENING TEST
(Forms A and B Combined)

POPULATION DESCRIPTION: Undergraduates at two and four year universities (approximately 60% freshmen and sophomores; 40% juniors and seniors)

NUMBER OF SUBJECTS (including pilot version): 10,000 plus

MEAN SCORES FOR INDIVIDUAL PARTS (Total Score Possible = 20):

Part 1: 12.42 (s.d. = 2.26)
Part 2: 8.02 (s.d. = 3.58)
Part 3: 11.30 (s.d. = 2.28)
Part 4: 14.48 (s.d. = 1.82)
Part 5: 13.56 (s.d. = 2.58)

MEAN SCORE (Total Score Possible = 100):

Males: 59 (s.d. = 6.22)
Females: 61 (s.d. = 5.31)

RANGE: 62

COMMENTS: Most undergraduates represented here were enrolled in a basic speech communication class. When this test was administered during class it did not affect the student's class grade.