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# An investigative study of the listening skills of managers, professional technical and clerical employees at Central States Health & Life Co. of Omaha

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**AN INVESTIGATIVE STUDY OF THE LISTENING SKILLS OF  
MANAGERS, PROFESSIONAL/TECHNICAL AND CLERICAL EMPLOYEES  
AT CENTRAL STATES HEALTH & LIFE CO. OF OMAHA**

**A Thesis**

**Presented to the**

**Department of Education**

**and the**

**Faculty of the Graduate College**

**University of Nebraska at Omaha**

**In Partial Fulfillment**

**of the Requirements of the Degree**

**Master of Arts**

**University of Nebraska at Omaha**

**by**

**Kathryn Ann Gillaspie**

**October, 1991**

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THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

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*November 6, 1991*

Date

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## TABLE OF CONTENTS

Chapter	Page
1. Introduction	1
Statement of the Problem	2
Statement of Sub-problems	2
Hypotheses	2
Significance of the Problem	3
Projected Design and Procedures	3
Assumptions	4
Limitations	4
Definition of Terms	5
Outline for the Remainder of Study	5
2. Review of Related Literature	6
Need for Effective Listening Skills in the Workplace	6
Need for More Instruction of Effective Listening Skills	7
Analysis of Current Skills	7
Listening Skills Related to Job Position	9
Summary	10
3. Methodology and Procedures	11
Subjects	11
Research Instrument	12
Research Design and Procedures	12
Hypotheses and Analysis of Data	13
Summary	14
4. Results	15
Sub-hypothesis One Results	15
Sub-hypothesis Two Results	17
Sub-hypothesis Three Results	18
Overall Results Summary	19

<b>Summary of Results</b>	<b>19</b>
<b>5. Discussion of Results</b>	<b>21</b>
Restatement of the Problem	21
Restatement of the Hypotheses	21
Description of Procedures Used	22
Principal Findings	22
Auxiliary Observations	23
Conclusions	25
Limitations of the Study	25
Implications of the Study	25
Recommendations for Further Research	26
Concluding Remarks	26
<b>Bibliography</b>	<b>27</b>
<b>Appendixes</b>	<b>29</b>
Appendix A: Permission Letter from VP Human Resources	30
Appendix B: Permission from Human Studies Board	31
Appendix C: Sample of Brown-Carlson Answer Sheet	34
Appendix D: Listening Skills Growth Chart	36
Appendix E: Summary Table	37
Appendix F: Listening Skills Test Composite Analysis	38

## LIST OF TABLES

	Page
TABLE 1: Sub-Hypothesis One <u>Brown-Carlsen Listening Test</u> Overall Projected Scores of Managers and Professional/Technical Employees	16
TABLE 2: Sub-Hypothesis One <u>Brown-Carlsen Listening Test</u> Overall Actual Scores of Managers and Professional/Technical Employees	16
TABLE 3: Sub-Hypothesis Two <u>Brown-Carlsen Listening Test</u> Overall Projected Scores of Managers and Clerical Employees	17
TABLE 4: Sub-Hypothesis Two <u>Brown-Carlsen Listening Test</u> Overall Actual Scores of Managers and Clerical Employees	18
TABLE 5: Sub-Hypothesis Three <u>Brown-Carlsen Listening Test</u> Overall Projected Scores of Professional/Technical and Clerical Employees	18
TABLE 6: Sub-Hypothesis Three <u>Brown-Carlsen Listening Test</u> Overall Actual Scores of Professional/Technical and Clerical Employees	19
TABLE 7: Overall Hypotheses Summary <u>Brown-Carlsen Listening Test</u>	20



## ABSTRACT

Effective listening is a skill that needs to be brought to the forefront in staff development programs and confronted by all levels of employees. Many jobs in the service-related industry require listening in order to accurately paraphrase customer demands and requests. Therefore, it is critical that employee listening skills are developed and reinforced as part of on-the-job training.

The purpose of this study was to determine if there is a significant difference in listening skills among different levels of selected employees at Central States Health & Life Co. of Omaha and to show a need for additional training in effective listening.

Three distinct employee groups were chosen: managers, professional/technical, and clerical employees. The employees were randomly selected and invited to attend a listening skills seminar taught by Don Grandgenett, a Senior Professor at the University of Nebraska at Omaha. The Brown-Carlson listening test was used to investigate the listening skills of all participants. Five different sub-sections of listening were charted by the Brown-Carlson listening test: immediate recall, following directions, recognizing transitions, recognizing word meanings, and lecture comprehension.

After a statistical analysis of the differences in mean scores among managers, professional/technical and clerical employees was run, the principal findings showed the following:

(1) Managers show a significant difference in both projected and actual scores compared to professional/technical and clerical employees as measured by the Brown-Carlson listening test.

(2) Professional/technical employees did not show a significant difference in actual or projected scores compared to clerical employees as measured by the Brown-Carlson listening test.

The conclusions of this study show that there appears to be a need for

additional training in all areas of effective listening for clerical employees, perhaps with further investigation warranted on following directions and lecture comprehension. There also seems to be a need for additional training in lecture comprehension for managers and professional/technical employees.

This study has shown a significant difference in the listening abilities of managers as compared to professional/technical and clerical employees. If additional training in effective listening can be directly related to job success, and is accepted by upper management, there may be unlimited potential for an increase in productivity, customer relations and internal harmony.

## CHAPTER ONE

### Introduction

Effective listening is one of the most under-estimated and under-developed skills in business today. No matter the nature of the business, effective listening is critical for professional growth, career satisfaction and the creation of solid interpersonal relationships among co-workers. Not only will skilled listeners become assets to the work environment, skilled listeners will be remembered by more people. Bosses who are effective listeners benefit subordinates by encouraging production of more work, implementing more useful ideas and providing faster employee career progress (Burley-Allen, 1982). The University of Minnesota reported that in the business world, 60 percent of misunderstandings can be traced to poor listening and only one percent to written communication (Montgomery, 1981). In order to increase the effectiveness of communication among co-workers, no matter their level of authority, listening skills need to be examined and developed by each individual.

Effective listening is a vital skill for all employees to possess in today's business world. This fact can be illustrated by recognizing that in the year 2000, there will be an estimated 13.5 million service jobs out of a total 18 million jobs (Wilson Learning, 1991). If Wilson Learning's benchmark of service jobs holds true for the year 2000, then effective listening skills taught and learned today will have tremendous impact on the financial success of all businesses. Future leaders need to understand the importance of effective listening and must take the necessary measures to improve this skill, both in the primary, secondary and higher education classrooms and in business training classes.

In 1957, research showed that people listen at approximately a 25 percent level of efficiency (Nichols, 1957). Turning this 25 percent around, people do

not grasp three-fourths of what others say (Pearce, 1989). Listening at a 25 percent level of efficiency must have increased since 1957, simply because of the impact of the media, the enormous amount of information that is available to all professionals, and the pressure to succeed in society.

Listening gets lost in the communication classes taught in businesses; therefore, it is time to research the actual listening skills of employees to see if these skills need to be addressed with more fervor.

#### Statement of the Problem:

Is there a significant difference between selected Central States employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test?

#### Statement of Sub-problems

Sub-problem 1: Is there a significant difference between the projected and actual listening abilities of managers, as compared to professional/technical employees, as measured by the Brown-Carlsen listening test?

Sub-problem 2: Is there a significant difference between the projected and actual listening abilities of managers, as compared to clerical employees, as measured by the Brown-Carlsen listening test?

Sub-problem 3: Is there a significant difference between the projected and actual listening abilities of professional/technical, as compared to clerical employees, as measured by the Brown-Carlsen listening test?

#### Hypothesis

There is no significant difference between selected Central States employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis 1: There is no significant difference between managers and professional/technical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis 2: There is no significant difference between managers and

clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis 3: There is no significant difference between professional/technical and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

### Significance of the Problem

Effective listening is a skill that needs to be brought to the forefront in staff development programs and confronted by all levels of employees. Too often, the higher up the corporate ladder an individual climbs, the less likely there may be a sense of urgency to improve any form of communication skills — least of all listening. Since many employees in the service industry are hired to work with customers, these employees must have good communication skills, such as listening, speaking, and writing. Many jobs in the service-related industry require continual listening in order to paraphrase customer demands and customer requests precisely. Therefore, it is critical that employee listening skills are developed and reinforced as part of on-the-job training.

The study of the differences in projected and actual listening skills of selected Central States' employees may reinforce a need to offer classes in listening and may even lengthen the amount of hours these classes are taught. Also, the correlation between employees' skill levels may show that listening is not just for one group of employees, but is a universal skill that may benefit all. This study will be one step in the goal of gaining the respect for listening to be viewed as a valued skill by today's professional in the business world.

### Projected Design and Procedures

To study the differences in projected and actual listening skills of Central States employees, several steps needed to be followed. The first was to randomly select 30 employees from three employee categories, which were manager, professional/technical and clerical, and invite them to attend one of three seminars. Second, the employees were asked to predict how well they

would do on the Brown-Carlsen listening test. Third, the employees were to take the Brown-Carlsen listening test administered by Don Grandgenett, a Senior Professor at the University of Nebraska at Omaha. Fourth, the employees were given immediate feedback on their projected and actual scores. Fifth, an analysis of the differences in scores among managers, professional/technical and clerical employees was run and results can be found in Chapter Four.

#### Assumptions

There are several assumptions that need to be addressed before continuing with this research.

Assumption 1: It is assumed that all employees in each category have had similar educational backgrounds and/or opportunities for training in listening skills.

Assumption 2: It is assumed that the Brown-Carlsen listening test is an accurate device to measure differences among the groups.

Assumption 3: It is assumed that there was no difference in the environmental conditions, no influence in the directions given by the instructor, and no differences in nonverbal messages given to each group during testing.

#### Limitations

There are several limitations that need to be addressed before continuing with this research.

Limitation 1: Subjects were randomly selected from a list of employees and invited to attend the listening seminars. This may be a limitation in that only those employees who have an interest in listening skills may have attended instead of a sample of impartial participants.

Limitation 2: The sample of employees tested was small, only 65 employees out of 545 were tested.

Limitation 3: The test was administered by audio cassette which might have limited visual learners and given an added advantage to auditory learners.

### Definition of Terms

Listening — To be able to hear and recognize sound.

Listening comprehension — To be able to give meaning to a perceived sound.

In this study listening comprehension was measured by the Brown-Carlsen listening test.

Manager — One who (1) directs, controls and leads a function and/or (2) directs, controls and leads people who are responsible for productivity in a business setting. In this study, managers consisted of those who direct, control and lead people who are responsible for productivity.

Professional/Technical — Employees in a business who are responsible for a job that requires little managing; however, have experience or advanced education to perform a specific job. In this study, professional/technical employees consisted of computer technicians, research analysts, benefits auditors and those experienced to perform a specific job.

Clerical — Employees in a business who are starting at entry level positions and who have little experience and/or education to perform specific jobs. In this study, clerical employees consisted of employees with little experience in business and limited skills.

### Outline for the Remainder of Study

The second chapter will review related literature which will support reasons for advocating listening as an important skill. The third chapter, methodology and procedures, will explain the subjects for the three groups selected, the randomization of the groups, and the background of the Brown-Carlsen listening test. Chapter Three will also cover the research design and procedures, hypotheses and analysis of data. The fourth chapter will discuss the results of the research by carefully examining each sub-hypothesis. The fifth chapter will provide discussion of the results, principal findings and recommendations for further research.

## CHAPTER TWO

### Review of Related Literature

The purpose of this chapter is to examine and review previous research related to various positions in business and to determine if there is a significant difference in skill levels. Various articles and books written about listening skills indicate a tremendous need for additional research regarding the correlation between effective listening skills and different job levels in business.

The literature and research reviewed in this chapter will be categorized by the following subjects: (1) research on the general need for effective listening skills, (2) research on the need for more instruction of effective listening skills, (3) analysis of current skill levels, and (4) research on listening skills related to job position.

#### Need for Effective Listening Skills in the Workplace

Most corporate communication classes emphasize the need for dynamic speaking skills, nonverbal sensitivity and the ability to be an effective listener. In a survey of 100 vice-presidents from selected Fortune 500 corporations, 89 percent reported that various types of programs were used to improve the communication abilities of employees (Papa & Glenn, 1988). While upper management firmly advocated communication skills, some managers and executives went even further to state that listening was one of the most underdeveloped but essential communication skills needed in corporations (Papa & Glenn, 1988). If a manager's greatest communication need is effective listening, then the listening abilities of managers must be fine tuned (Pearce, 1989).

What is meant by listening in the workplace and why the importance? Listening means to translate what is heard and give correct meaning to words and directions so a job can be performed correctly. From the very beginning of a job, employees learn to process and implement what is told by managers. If the translation of the message sent to employees is distorted, misinterpreted,



ignored, or written down incorrectly, trouble may begin with output and then with simple job tasks having to be retyped or rescheduled. This is only one level of difficulty which may result from poor listening habits. Poor listening at all levels of a company can affect the productivity of a corporation, its overhead costs, and its reputation as a service organization. With 100 million people in the work force, a simple \$10.00 mistake from each can add up to more than one billion dollars a year (Sigband & Bell, 1986).

#### Need for More Instruction of Effective Listening Skills

Nixon and West (1989) wanted to prove the need for teaching listening skills in business class. To help sell their idea of the need for listening skills in business classes, Nixon and West (1989) discovered that most workers spend at least 60 percent of their work day listening. Nichols (1957) suggested that since listening is a skill, it can be improved with instruction and pointed out that although people give lip service to the need for good listening, rarely is anything done about it. It seems that every article and book published on the subject of listening repeats the same message over and over: there is a need for more instruction on listening skills. Paul T. Rankin (1929) found individuals spent 70 percent of their waking day in four types of communication. He claimed that on the average, 45 percent was spent listening. Ralph Nichols (1957) wrote that of the four types of communication, 40 percent was spent listening. Hamilton and Kleiner (1987) cited that in a report by Larry L. Barker, it was claimed that 70-75 percent of the waking day was spent in one of four types of communication and 42 percent of that time was spent listening. While the percentages seem to change from researcher to researcher, the fact is that all agree individuals spent more time listening than any other form of communication and received less training and education on this skill.

#### Analysis of Current Skills

Managers and officers are always communicating to employees, clients, and other departments. They send electronic messages, administer performance

appraisals, put out fires, and come up with goals and objectives for each quarter. Montgomery (1981) found that 30 percent of a manager's day was spent speaking and 45 percent was spent listening. If this is true, what measurements have been given to test a manager's skill level and what training has been provided before they work with clients, customers and their own employees? If corporations want to think of this in terms of dollars, it can be said that managers receive over half of their paycheck for communication abilities in speaking and listening (Montgomery, 1981). How much is taken for granted that managers are proficient in these skills?

Many corporations have established listening training programs: Sperry, Xerox, 3M, General Electric, Ford, IBM and on a local level, First National Bank, Valmont and US West. However, not many of these programs are based on research that ties into productivity, but instead are established on a common sense belief that they are good reinforcers of listening's critical value as a skill.

What needs to be done to confront the problem of poor listening skills or under-utilized listening skills is to first test all employees on their actual skill level so an analysis can be done to target how training on listening can be designed. In a study by Papa & Glenn (1988), they looked at the impact of differences in listening ability on performance with a new computer system. Papa & Glenn also explored whether or not employees who received training in listening prior to using a new computer outperformed employees who did not receive such training. After much research, Papa & Glenn felt there was no direct evidence that supported a relationship between listening skills and individual performance in any other study reported, so in order to provide support for this claim and for continued listening training in corporations they decided to test this theory.

The results indicated strong evidence that listening ability impacts employee productivity levels with new technology. The results also showed that the provision of listening training programs improved employees' ability to

perform with new technology (Papa & Glenn, 1988).

### Listening Skills Related to Job Position

A recent study in the Journal of Business Communication disclosed that good listeners hold higher level positions and are promoted more often. Unfortunately, the study concluded that when good listeners reach the top, they then become better speakers than listeners since they are used to being listened to (Grazian, 1991).

In an article written by Sypher, Bostrom and Seibert (1989), it was hypothesized that listening had received comparatively little attention from communication researchers. Bostrom (1988) felt that the understanding of listening had increased very little in the last 20 years since researchers in speech communication had shown little interest in listening. So Sypher, Bostrom and Seibert decided to study listening because they wanted to link listening to other communication-related skills and relate listening's importance to communication skills in organizations. What these researchers were also focused on was how much time managers and executives spent listening and the importance of effective listening.

Research done by Sypher, Bostrom and Seibert (1989) tested to see if there was a relationship between listening abilities and job level in the organization, if there was a relationship between listening abilities and upward mobility, and if there was a difference between supervisors and non-supervisors listening skills.

The results and discussion showed that there was only limited evidence that employees in higher levels had better listening skills. Looking at promotions over time showed that listening skills were positively correlated with an employee's rise through the corporation's hierarchy. These findings suggested that some aspects of listening, such as short term listening and listening with distraction, make a difference in who gets promoted (Sypher, Bostrom & Seibert, 1989).

In reviewing the topic of listening differences between supervisor and

non-supervisor positions, the research by Sypher, Bostrom and Seibert related that non-supervisors had better listening abilities than supervisors. This outcome may have been because non-supervisors spent more time listening to supervisors and customers and that supervisors spent more time giving direction and were more used to being listened to. Montgomery (1981) contended that although managers spent at least 45 percent of their time listening, perhaps they were not as proficient in this skill as they should be. Sypher, Bostrom and Seibert's study analyzed 36 employees in a large insurance corporation and all three researchers suggested that others replicate their study in order to confirm their findings.

### Summary

The research in the rest of this thesis will assess skill levels in several employee categories. It will assess significant differences in listening skills by employee categories and may provide evidence that there is a need for listening skills training in businesses. This research may also point out that, at all levels, individuals may not be as good a listeners as they think they are.

Research has shown that immediately after the average person listened to someone talk, what was heard was only part of what was said, and the individual correctly understood only part of what was heard, no matter how careful a listener. Eight hours later the listener would only remember 25 percent of what was said (Montgomery, 1981). This statistic may change after employees are exposed to the awareness of their own listening ability in comprehension, recall, directions, transitions and word meanings. This type of research should significantly impact the awareness of employees. Then listening can receive the kind of attention it deserves.

Chapter Three will discuss the methodology and procedures used in this experimental study. Selection of participants, research instruments, design and procedures will be explained. In addition, a thorough analysis of the data related to the hypotheses will be reported.

## CHAPTER THREE

### Methodology and Procedures

This study was initiated to secure and analyze data among three selected employee groups at Central States Health & Life Co. of Omaha to see if there were any significant differences among the three groups as to their listening abilities. The data was taken from a listening skills test implemented on three separate dates: June 26, July 9, and July 12, 1991. Permission was granted by Fred Schott, Vice President of Human Resources at Central States, and the Human Studies Board at the University of Nebraska (see Appendix A & B). This chapter will discuss methods and procedures used to investigate the differences among the groups.

#### Subjects

This study was confined to Central States Health & Life Co. of Omaha employees. Selected employees were invited from three employee categories at Central States. The three categories were managers, professional/technical and clerical employees.

In order to randomly select employees from the three groups, a printed copy of all employees by employee number and by category was generated from Central States' payroll department. The categories (job grades) were clerical - grades two through five, professional/technical - grades six through 18 and managers and officers who are not job graded. A number was then selected from a table of random numbers and assigned to each employee. Once the random number was selected, it was matched with the employee and the process continued until there were thirty employees selected from each group. Invitations were sent to selected employees asking them to attend one of the three seminars. They were asked to RSVP so each knew it was not mandatory to attend. All subjects ranged in educational background, age and experience. Employees were selected strictly by category; no other criteria was considered.

### Research Instrument

The Brown-Carlsen listening skills comprehension test was one of the first listening tests which evaluated comprehension of the spoken word (Lorge, 1959). This test contains 76 items grouped into five parts: immediate recall - 17 questions, following directions - 20 questions, recognizing transitions - 8 questions, recognizing word meanings - 10 questions, and lecture comprehension - 21 questions (see Appendix C).

Lorge (1959) proposed that of these five parts, the section on transition and lecture comprehension came closest to evaluating listening comprehension. He went on to state that the sections on immediate recall, following directions and word meanings were more like sub-tests on well-known intelligent tests. Recognizing transitions, Lorge asserted, could be a significant component in useful listening skills.

The Brown-Carlsen listening test was chosen for several reasons. First, it went beyond other tests because its format is a combination of several areas of listening, including total recall, following directions, recognizing transitions, recognizing word meanings, and lecture comprehension. The reliability of this test taken from The Fifth Measurement Yearbook showed its ranking at .86 (Buro's, 1959).

### Research Design and Procedures

This study investigated the differences in listening skills among three distinct employee categories at Central States Health & Life Co. of Omaha.

Before the test was taken, employees in each category were asked to predict how well they would do on each sub-section and then overall on the Brown-Carlsen listening test. The scale used to predict scores on the Brown-Carlsen listening test ranged from zero to 100 percent. Once employees were finished with the test, immediate feedback was provided which illustrated projected and actual scores on a listening skills growth chart (see Appendix D).

The initial step in this research was to confirm the dates of the seminars,

invite randomly selected employees, reserve a training room, contract with an impartial facilitator and initiate research.

The seminars were conducted by Don Grandgenett, a Senior Professor at the University of Nebraska at Omaha. He administered the Brown-Carlsen listening test during the first hour of the seminar. The stage was set for the test when Grandgenett asked the participants to keep an open mind. Grandgenett then asked the participants to predict how they would do in each of the five categories of the test and how they would do overall.

Once the test started, no questions could be asked nor could anyone talk for the next 38 minutes. The test was pre-recorded on cassette tape by a radio announcer who had excellent voice clarity and rate. The tape was pre-recorded so it would not prejudice the audience or make a difference in scores if more than one person read the test.

#### Hypotheses and Analysis of Data

The three hypotheses that were tested by the use of the Brown-Carlsen listening test are:

Sub-hypothesis 1: There is no significant difference between managers and professional/technical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis 2: There is no significant difference between managers and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis 3: There is no significant difference between professional/technical and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Statistical procedures focused on testing the three sub-hypotheses of this study. These procedures compared mean scores among all three categories on both projected and actual listening scores. A t-test was used to analyze the significant differences among groups at a .05 level using two-tailed probability.

### Summary

In this chapter, the methodology of the study was described in four sections: (1) subjects, (2) research instrument, (3) research design and procedures, and (4) hypotheses and analysis of data. These sections discussed a methodology supporting the overall purpose of this study to determine if there was a significant difference in responses among managers, professional/technical and clerical employees' projected and actual listening abilities.

In the beginning of this chapter, a description of subjects was given. All employees from the three categories were randomly selected, invited to participate (not mandated), and were given the same instructions. The second section, research instrument, was selected because of its format used to test individuals and because of the test's reliability factor of .86. The third section, research design and procedures, examined the classroom arrangement, the facilitator and the projected and actual scores presented to each employee on a listening skills growth chart. The fourth section, actual analysis of the data collected, was run to show the probability among groups and to support the hypotheses. The analysis examined if there was a significant difference between each employee category at a .05 level. The results of each of these categories are reported in Chapter Four.

Chapter Four will examine the results of this study by comparing all employee categories and relating the comparisons back to the hypotheses.



## CHAPTER FOUR

### Results

The purpose of this study was to determine if there was a significant difference in listening skills between different levels of Central States employees and to show a need for additional training in effective listening.

The first sub-problem was to test if there is a significant difference between managers and professional/technical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test. The second sub-problem was to test if there is a significant difference between managers and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test. The third sub-problem was to test if there is a significant difference in professional/technical and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

As discussed in Chapter Three, the study used the Brown-Carlsen listening test to gather data by testing three selected groups of Central States' employees.

This chapter is divided into four sections. Section one will examine the statistical results of the first sub-hypothesis. The second section will examine results of the second sub-hypothesis. The third section will analyze the results of the third sub-hypothesis and the fourth section will review and analyze the results of the entire study.

#### Sub-hypothesis One Results

Although there were differences in actual and projected scores between managers, professional/technical and clerical employees, there was no attempt made to test for significance between actual and projected scores in this study. A summary table with the means and standard deviations for both projected and actual scores for all three employee categories can be found in Appendix E.

In examining managers as compared to professional/technical employees' listening abilities, the first hypothesis tested was:

Sub-hypothesis 1: There is no significant difference between managers and

professional/technical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

This sub-hypothesis was analyzed by testing the difference in mean scores between managers and professional/technical employees and a standard t-test was performed with the results reported in Tables 1 and 2.

The t-test value for the projected results between managers and professional/technical employees was -2.36 and for the actual overall score the t-test value was -2.28 which are both significant at the .05 level. There is a significant difference between managers and professional/technical employees' overall projected scores  $p < .023$  and a significant difference between managers and professional/technical employees' overall actual scores  $p < .028$ . Thus, initial results for the first sub-hypothesis implied that managers did show a significant difference from professional/technical employees in projected and actual overall scores on the Brown-Carlsen listening test. This also indicated that the null hypothesis on sub-hypothesis one can be rejected.

<b>Table 1: Sub-Hypothesis One Brown-Carlsen Listening Test Overall Projected Scores</b>					
Group	N	Mean	Standard Deviation	t-Value	2-Tailed Probability
Manager	18	68.83	10.61	-2.36	.023*
Professional/Technical	24	59.66	14.57		

\* significant at .05 level

<b>Table 2: Sub-Hypothesis One Brown-Carlsen Listening Test Overall Actual Scores</b>					
Group	N	Mean	Standard Deviation	t-Value	2-Tailed Probability
Manager	18	72.67	7.28	-2.28	.028*
Professional/Technical	24	66.29	10.79		

\* significant at .05 level

### Sub-hypothesis Two Results

In continuation of the results of this study, the second sub-hypothesis was: Sub-hypothesis 2: There is no significant difference between managers and clerical employees' projected and actual listening abilities as measured by the Brown-Carlson listening test.

The difference in scores between managers and clerical employees' listening skills on projected and actual overall scores was analyzed by testing the difference in the mean scores and running a standard t-test. The results are reported in Tables 3 and 4.

The t-test value for the projected results between managers and clerical employees was -3.48 and for the t-test value on the actual overall scores was -4.05. There is a significant difference between managers and clerical employees' overall projected scores  $p < .001$  and a significant difference between managers and clerical employees' overall actual scores  $p < .0001$ . The initial results for the second sub-hypothesis implies that managers show a significant difference from clerical employees in projected and actual overall scores on the Brown-Carlson listening test. Therefore, the null sub-hypothesis two can be rejected.

<b>Table 3: Sub-Hypothesis Two Brown-Carlson Listening Test Overall Projected Scores</b>					
Group	N	Mean	Standard Deviation	t-Value	2-Tailed Probability
Manager	18	68.83	10.61	-3.48	.001*
Clerical	23	56.65	11.71		

\* significant at .05 level

<b>Table 4: Sub-Hypothesis Two Brown-Carlson Listening Test Overall Actual Scores</b>					
Group	N	Mean	Standard Deviation	t-Value	2-Tailed Probability
Manager	18	72.67	7.28	-4.05	.0001*
Clerical	23	59.56	13.15		

\* significant at .05 level

### Sub-Hypothesis Three Results

In continuation of the results of this study, the third sub-hypothesis was: Sub-hypothesis 3: There is no significant difference between professional/technical and clerical employee's projected and actual listening abilities as measured by the Brown-Carlson listening test.

This sub-hypothesis was analyzed by testing the difference in mean scores between professional/technical and clerical employees and a standard t-test was performed with the results reported in Tables 5 and 6.

The t-test value for the projected results between professional/technical and clerical employees was -.78 and for the actual overall score the t-test value was -1.91 which are not significant at the .05 level. There is no significant difference between professional/technical and clerical employees' projected scores  $p < .438$  and no significant difference in professional/technical and clerical employees' actual overall scores  $p < .063$ . Therefore, null sub-hypothesis three can be accepted.

<b>Table 5: Sub-Hypothesis Three Brown-Carlson Listening Test Overall Projected Scores</b>					
Group	N	Mean	Standard Deviation	t-Value	2-Tailed Probability
Professional/Technical	24	59.66	14.57	-.78	.438
Clerical	23	56.65	11.71		

<b>Table 6: Sub-Hypothesis Three Brown-Carlsen Listening Test Overall Actual Scores</b>					
Group	N	Mean	Standard Deviation	t-Value	2-Tailed Probability
Professional/Technical	24	66.29	10.79	-1.91	.063
Clerical	23	59.56	13.15		

### Overall Results Summary

There are several conclusions that can be drawn from the overall test results between the three selected employee groups' projected and actual test scores:

- (1) Managers scored higher on their projected and actual scores than professional/technical and clerical employees.
- (2) Clerical employees scored much lower than they projected they would on the Brown-Carlsen listening test.
- (3) Professional/technical employees scored lower than they projected they would on the Brown-Carlsen listening test.

A composite statistical analysis can be found in Appendix F.

### Summary of Results

The purpose of this study was to determine if there was a significant difference in listening skills between three different employee categories at Central States Health & Life Co. of Omaha. The purpose was also to investigate a need for additional training on effective listening.

In testing all three sub-hypotheses by examining the difference in mean scores and running a standard t-test, the statistical analysis shows there is a significant difference in projected and actual scores between managers and professional/technical employees and managers and clerical employees. Therefore, null sub-hypotheses one and two can be rejected. The analysis for null sub-hypothesis three shows that there is no significant difference between

projected and actual scores between professional/technical and clerical employees. This sub-hypothesis can be accepted. A summary of the overall hypotheses can be found in Table 7.

<b>Table 7: Overall Hypotheses Summary</b>			
<b>Sub-hypotheses</b>	<b>Groups</b>	<b>Accepted/ Rejected</b>	<b>Significance level</b>
Sub-hypothesis 1	Manager vs. Professional/Technical	Rejected	.05
Sub-hypothesis 2	Manager vs. Clerical	Rejected	.01
Sub-hypothesis 3	Professional/Technical vs. Clerical	Accepted	--

Implications of these results will be discussed in Chapter Five. Chapter Five will conclude with a discussion of the results, principal findings and recommendations for further research.

## CHAPTER FIVE

### Discussion of Results

In this chapter the results of this study were designed to investigate if there were differences in projected and actual scores among selected Central States employees as measured by the Brown-Carlsen listening test. Discussion will be divided into nine sections: (1) restatement of the problem, (2) restatement of hypotheses, (3) description of procedures used, (4) principal findings, (5) auxiliary observations, (6) conclusions, (7) limitations of the study, (8) implications of the study, and (9) recommendations for further research.

#### Restatement of the Problem

The purpose of this study was to determine if there is a difference in listening skills between different levels of selected employees at Central States Health & Life Co. of Omaha and to show a need for additional training in effective listening.

The first sub-problem was to discover if there is a significant difference in listening ability between managers and professional/technical employees as measured by the Brown-Carlsen listening test. The second sub-problem was to discover if there is a difference in listening ability between managers and clerical employees as measured by the Brown-Carlsen listening test. The third sub-problem was to discover if there is a difference in listening ability between professional/technical and clerical employees as measured by the Brown-Carlsen listening test.

#### Restatement of the Hypotheses

The hypothesis stated there is no significant difference in responses between all selected Central States employee groups' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis one stated there is no significant difference in responses between managers and professional/technical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis two stated that there is no significant difference between managers and clerical employees' projected and actual listening abilities as measured by the Brown-Carlson listening test. Sub-hypothesis three stated there is no significant difference between professional/technical and clerical employees' projected and actual listening abilities as measured by the Brown-Carlson listening test.

#### Description of Procedures Used

This study investigated the differences in listening skills among three distinct employee categories at Central States Health & Life Co. of Omaha. The three categories were managers, professional/technical and clerical employees. A total of 65 out of 545 employees were randomly invited to attend a listening skills seminar on a specific date. Similar environmental conditions were provided in a training room at Central States for all three groups. The same instructor, Don Grandgenett, a Senior Professor at the University of Nebraska at Omaha, taught all three sections. The test was administered by audio tape in order to have like testing conditions for all three groups. Validity for the Brown-Carlson listening test has been stated at the .86 level in The Fifth Mental Measurement Yearbook (Buros, 1959).

All employees at Central States have had opportunities to take classes in a variety of communication skills. All employees selected came from varied backgrounds, education, age, and work experience. The only difference in the sections was individual job category. Statistical procedures focused on testing the three sub-hypotheses by comparing mean scores among all three categories on both projected and actual listening scores. A t-test was used to analyze the significant differences among groups at a .05 level using a two-tail probability.

#### Principal Findings

After a statistical analysis of the differences in mean scores among managers, professional/technical and clerical employees at Central States, the principal findings on each sub-hypothesis were broken down into the following



areas:

### Hypothesis

The hypothesis of this study stated that there is no significant difference in responses between selected Central States employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test. This hypothesis can be accepted since there was a significant difference in one of the selected employee groups which was professional/technical as compared to clerical employees. Breaking this down, further analysis showed:

Sub-hypothesis 1: There is no significant difference in responses between managers and professional/technical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis one results showed there was a significant difference in projected and actual scores on the Brown-Carlsen listening test between managers and professional/technical employees.

Sub-hypothesis 2: There is no significant difference in responses between managers and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis two results showed that there was a significant difference in projected and actual scores on the Brown-Carlsen listening test between managers and clerical employees.

Sub-hypothesis 3: There is no significant difference in responses between professional/technical and clerical employees' projected and actual listening abilities as measured by the Brown-Carlsen listening test.

Sub-hypothesis three results showed there was no significant difference in projected and actual scores on the Brown-Carlsen listening test between professional/technical and clerical employees.

### Auxiliary Observations

Some auxiliary observations that may be useful to discuss are the analysis of the mean scores of each sub-section on the Brown-Carlsen listening test.

This may be able to investigate a need to promote additional training in effective listening at Central States. The observations are:

(1) Immediate Recall — The mean score for managers was 75.89 percent as compared to professional/technical at 67.08 percent and clerical employees at 63.52 percent. There seems to be a need for additional training in the area of immediate recall as related to effective listening.

(2) Following Directions — This area of the Brown-Carlson test is a vital area for all employees. Managers' actual mean score in this sub-section was 78.89 percent as compared to professional/technical at 72 percent and clerical at 55.87 percent. This is a significantly low score for clerical employees as compared to managers and professional/technical employees. Following directions is essential to all employees to perform job tasks correctly the first time, but it is critical for clerical employees. There seems to be a need for additional training on this specific skill as related to effective listening.

(3) Recognizing Transitions — After a comparison of the mean scores of the actual scores between managers, professional/technical and clerical employees, managers' mean score was very close to professional/technical coming out at 73.78 percent compared to at 72.29 percent. Clerical employees averaged 59.91 percent. There seems to be a need for additional training on this specific skill as related to effective listening.

(4) Recognizing Word Meanings — The analysis of the mean scores for all three groups indicates that this scores in the sub-section ranked the highest compared to the rest of the sub-sections. The mean score for managers was 83.22 percent, professional/technical scored 73.33 percent and clerical employees averaged 66.09 percent. Although these scores were the highest, there is still some room for improvement for clerical employees.

(5) Lecture Comprehension — The lowest scores shown by the analysis of the mean scores for all three groups was in lecture comprehension. The mean score for managers was 62 percent, professional/technical showed 56.38

percent and clerical employees showed 48.61 percent. All three employee groups' percentages are so low that there may be a need for additional training in this specific area of effective listening.

### Conclusions

The results of this study suggest the following conclusions:

(1) Managers show a significant difference in both projected and actual scores as compared to professional/technical and clerical employees as measured by the Brown-Carlsen listening test.

(2) Professional/technical employees did not show a significant difference in actual or projected scores as compared to clerical employees as measured by the Brown-Carlsen listening test.

(3) There appears to be a need for additional training in all areas of effective listening for clerical employees perhaps with further investigation warranted on following directions and lecture comprehension.

(4) Managers and professional/technical employees seem to show a need for additional training in lecture comprehension as part of effective listening skills.

### Limitations of the Study

This study was successful in collecting data for the statistical analysis; however, as with all studies, it was not without limitations. The three limitations are: (1) random selection of employees by three broad job categories, (2) the use of only one test with a sample of 65 out of 545 employees, and (3) the test was administered by audio cassette which may limit employees who are visual learners.

### Implications of the Study

Implications drawn from this study are:

(1) Clerical employees' low percentages seem to show a greater need for improvement in all areas of effective listening, especially in following directions and lecture comprehension.

(2) Although managers' mean scores are higher than the other two groups there seems to be a need for improvement in lecture comprehension.

(3) Professional/technical employees did not show a significant difference as compared to clerical employees on the actual Brown-Carlson listening test and seem to show a need for improvement in immediate recall and lecture comprehension.

#### Recommendations for Future Research

Based on this study, the following are suggested recommendations for future research:

(1) Many facets of this research on listening skills should be studied more in-depth by comparing job status with effective listening abilities.

(2) Additional research in the area of following directions and lecture comprehension should be investigated.

(3) Additional seminars on effective listening may need to be provided for all employees using measurements for individual pre- and post-skill level.

(4) This study should be replicated using other businesses and the categories of employees should be divided into more specific job functions.

#### Concluding Remarks

This study has shown a significant difference in the listening abilities of managers as compared to professional/technical and clerical employees. Other studies have had similar implications that listening is directly related to job success as discussed in Chapter Two. If additional training in effective listening is accepted by upper management, there may be unlimited potential for an increase in productivity, customer relations and internal harmony.

Not only is it a challenge to corporations to make sure managers and officers are excellent listeners, but the entire company should have an opportunity to enhance this skill in order to cut down on internal office misunderstandings and, more importantly, external misunderstandings between customers and clients.

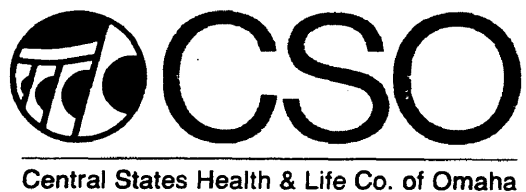
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## APPENDIXES

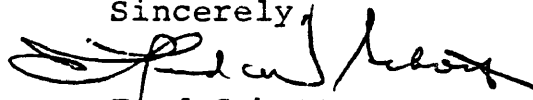
FRED SCHOTT  
Vice President  
Human Resources Division



To Whom it May Concern:

Please be advised that the research project -- "Descriptive study of Listening Skills of Central States Employees" -- chosen by Kathryn Ann Gillaspie will be a valuable study to Central States Health & Life Co. of Omaha.

Sincerely,



Fred Schott  
Vice President  
Human Resource Division





University  
of Nebraska  
Medical Center

Eppley Science Hall 3018  
600 South 42nd Street  
Omaha, NE 68198-6810  
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FAX (402) 559-7845

UNIVERSITY OF NEBRASKA  
INSTITUTIONAL REVIEW BOARD  
FOR THE PROTECTION OF  
HUMAN SUBJECTS

June 26, 1991

Kathryn Ann Gillaspie, MA  
Teacher Education  
UNO

IRB # 295-91 EX

TITLE OF PROPOSAL: Descriptive Study of Listening Skills of Managers,  
Professional/Technical, and Clerical Employees at Central States Health  
and Life Co.

Dear Ms. Gillaspie:

I have reviewed your Exemption Information Form for the above-titled  
research project. According to the information provided this project  
is exempt from IRB review under 45 CFR 46:101B 1,2 .

It is understood that an acceptable standard of confidentiality of data  
will be maintained. Data must be recorded in such a manner that subjects  
cannot be identified directly or through identifiers linked to the subjects.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ernest D. Prentice'.

Ernest D. Prentice, Ph.D.  
Vice Chairman, IRB

EDP/lmc



University  
of Nebraska

The University of Nebraska  
Institutional Review Board  
For the Protection of  
Human Subjects

Office of the Executive Secretary, IRB  
5017 Conkling Hall  
University of Nebraska Medical Center  
42nd & Dewey Avenue  
Omaha, NE 68105-1065  
(402) 559-6463

## EXEMPTION INFORMATION FORM

PROPOSAL TITLE: Descriptive study of Listening Skills of managers,  
professional/technical, and clerical employees at Central States  
Health and Life Co.  
INVESTIGATOR(S) NAME & DEGREE: Kathryn Ann Gillaspie, MA Education  
DEPARTMENT & SCHOOL: Teacher Education, University of NE at Omaha  
ADDRESS: 8009 Volt St. Omaha, NE 68147  
TELEPHONE NUMBER: home - 731-3453 work - 399-3525

## PURPOSE OF THE STUDY:

To find out if there is significant difference between perceived and actual listening abilities of managers compared to professional/technical compared to clerical employees at Central States.

## DESCRIPTION OF SUBJECT POPULATION AND METHOD(S) OF RECRUITMENT:

I chose 30 employees randomly from each employee category and sent invitations to them for three separate Training seminars on Listening Skills. The seminars will be held this summer.

**INFORMED CONSENT:** Some technically exempt research projects ethically require informed consent (written or oral). If, in the investigator's opinion, the study requires informed consent, the method used to obtain informed consent should be described and any written consent forms submitted. If the study does not require consent, it should be so stated and justified.

This study is exempt from informed consent. Explanation is on next page.

DESCRIPTION OF PROCEDURES:

The seminars are scheduled for June 26th, July 9th, and July 12th from 1-4PM. I will have 30 participants from each employee category attending. Dr. Donald Grandgenett, Senior Professor in College of Education will be teaching these 3-hour seminars. He will first implement the Brown-Carlson Listening Skills test to all groups, then teach a Listening seminar. The results of the test will be given to each employee and I will be using the results for a comparison. All employees' scores will be kept confidential.

EXEMPTION CATEGORY: This proposal qualifies for exemption under 45 CFR 46:101(b) paragraph(s) 1 & 2 and is justified as follows:

- 1. Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular or special education practices.
- 2. Research involving the use of educational tests and subjects cannot be identified. (see attached)

\_\_\_\_\_  
SIGNATURE OF INVESTIGATOR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF ADVISOR  
(for student investigator)

\_\_\_\_\_  
DATE

The IRB reserves the right to request the investigator provide additional information concerning the proposal.

# BROWN-CARLSEN LISTENING COMPREHENSION TEST

Appendix C  
ANSWER SHEET: FORM BM

1 2 3 4 5 6 7 8  
A B C D E F G H

BE SURE YOUR MARKS ARE HEAVY AND BLACK.  
ERASE COMPLETELY ANY ANSWER YOU WISH TO CHANGE.

%ile				
STAND. SCORE				
RAW SCORE				
PART	A, B, C, D	E	TOTAL	

## PART A Immediate Recall

SAMPLE				
2	3	4	5	N
1				
2				
3				
4				
5				
6				
7				

## PART B Following Directions

SAMPLE				
4	5	6	7	N
18				
19				
20				
21				
22				
23				
24				

## PART C Recognizing Transitions

SAMPLE			
I	T	C	N
38			
39			
40			
41			
42			
43			
44			

## PART D Recognizing Word Meanings

SAMPLE				
a. set up	b. threw			
c. furnished	d. arranged	e. fixed at a particular level		

46 and 47		a	b	c	d	e
a. turn	b. climb	46				
c. extend	d. operate	47				
e. spread						
48 and 49		f	g	h	i	j
f. piece	g. function	48				
h. line	i. portion	49				
j. character						

50 and 51		a	b	c	d	e
a. clever	b. vivid	50				
c. favorable	d. glorious	51				
e. radiant						

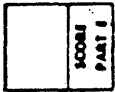
52 and 53		f	g	h	i	j
f. untrue	g. deceptive	52				
h. temporary	i. misleading	53				
j. artificial						

54 and 55		a	b	c	d	e
a. uncovered	b. frank	54				
c. available	d. mild	55				
e. undecided						

DO NOT TURN THE ANSWER SHEET OVER  
UNTIL YOU ARE TOLD TO DO SO.

1991  
Date of Testing 6/26 7/9 7/12  
Sex: M F  
Company Central States Health & Life Company  
Section I II III  
Emp. Badge No. \_\_\_\_\_  
Title \_\_\_\_\_  
Dept. \_\_\_\_\_

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PART E.

Lecture Comprehension

SAMPLE

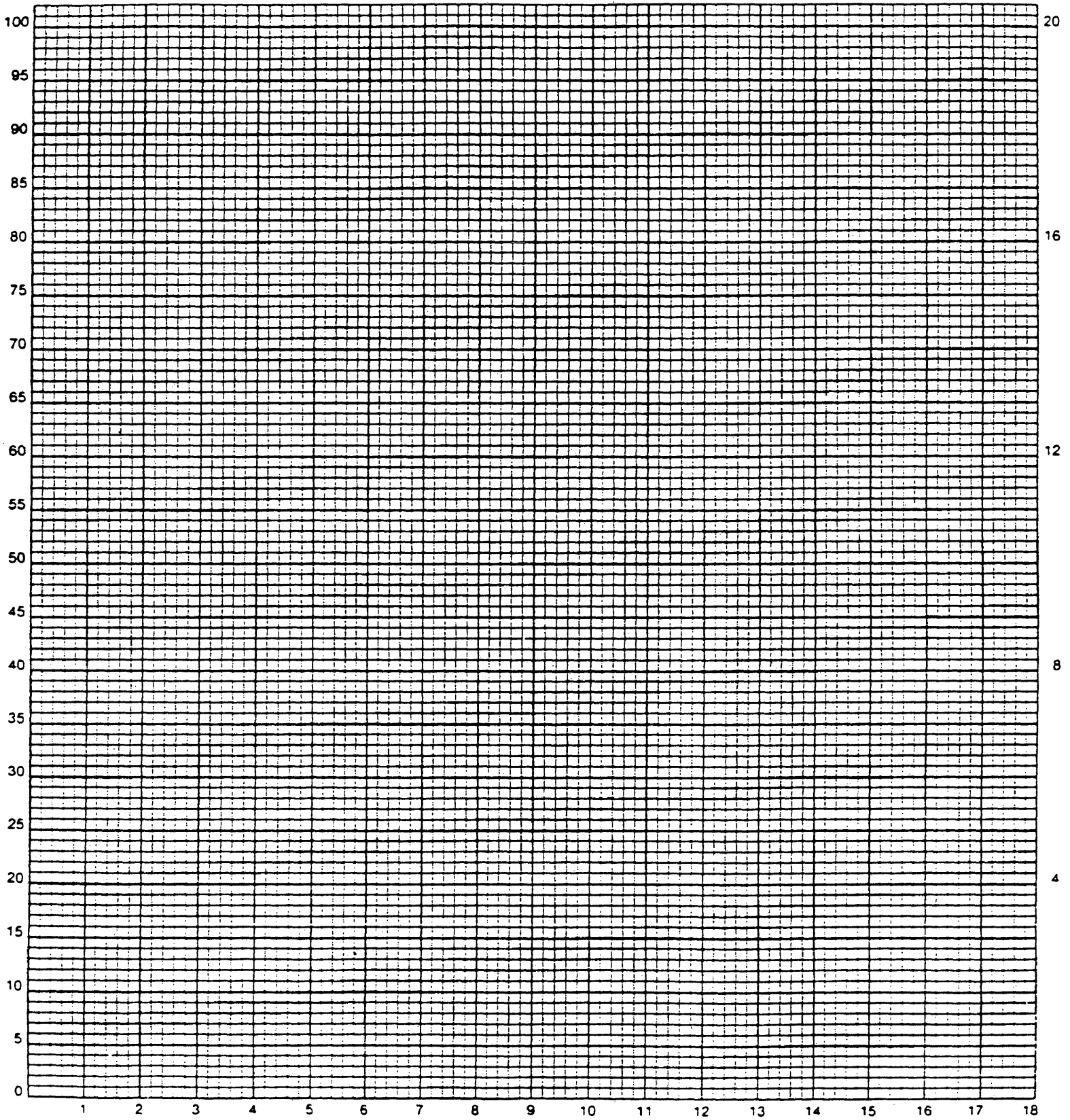
a. Improvement of Reading b. Your Reading
c. Improving Your Reading Ability d. Methods of Improving Reading e. You and Your Reading

- 56 a. mother b. father c. half brother d. step-mother e. sister
57 f. 6 g. 7 h. 8 i. 10 j. 12
58 a. Whitman b. Eastman c. Lincoln d. Shakespeare e. Untermeyer
59 f. gloves g. books h. shoes i. silverware j. dresses
60 a. baseball b. music c. art d. gardening e. taxes
61 f. South Dakota g. Wisconsin h. Iowa i. North Dakota j. Minnesota
62 a. barbershop b. restaurant c. bus station d. library e. doctor's office
63 f. on the lawn g. at the dinner table h. at the beach i. in the park j. on the floor
64 a. data b. headline c. caption d. outline e. lead
65 f. sentences g. phrases h. letters i. words j. lines
66 a. newspaper clipping b. billboard c. forcing d. eye regressions e. machine

- 67 f. obtain information g. become interesting h. increase enjoyment i. gain inspiration j. gain power to learn
68 a. obtain information b. become interesting c. increase enjoyment d. gain inspiration e. gain power to learn
69 f. An Interesting Guest g. Writing Newspaper Stories h. The Three R's i. Getting the Main Idea j. Memory Work
70 a. It is the best method. b. Americans are machine-minded. c. It has faults as a method. d. It increases comprehension. e. It works with serious cases.
71 f. They give knowledge. g. They miss the real truth. h. They become disturbed by applause. i. They are brilliant. j. They talk too long.
72 a. Everyone can improve. b. Reading is easy. c. You should force yourself to read an hour a day. d. You shouldn't be ashamed if you don't read well. e. Everyone makes mistakes.
73 f. The machine method g. The one you like the best h. The billboard method i. Not one, but all of them j. Depends upon how you read
74 a. understanding b. power c. polish d. inspiration e. wealth
75 f. old-maidish g. honest h. clever i. home-loving j. modest
76 a. Lincoln story b. Miss Gavigan episode c. John Patterson story d. Billboard incident e. Discussion of machines

Brown-Carlson: BM

Appendix D  
**LISTENING SKILLS GROWTH CHART**



1 Immediate Recall  
2  
3 Following directions  
4  
5 Recognizing Transition  
6  
7 Recognizing word meaning  
8  
9 Lecture comprehension  
10  
11  
12  
13  
14  
15  
16  
17  
18

Dr. Don Grandgenett  
(Not to be copied without written permission)

<b>Summary Table Brown-Carlson Listening Test</b>						
<b>Group</b>	<b>Invitations Sent</b>	<b>Number Attended</b>	<b>Projected Mean</b>	<b>Projected SD</b>	<b>Actual Mean</b>	<b>Actual SD</b>
Manager	30	18	68.83	10.61	72.67	7.28
Professional/ Technical	30	24	59.66	14.57	66.29	10.79
Clerical	30	23	56.65	11.71	59.56	13.15

## LISTENING SKILLS TEST ANALYSIS

	MEAN SCORES			PROBABILITY		
	MANAGERIAL	PROFESSIONAL	CLERICAL	MANAGERIAL TO PROFESSIONAL	MANAGERIAL TO CLERICAL	PROFESSIONAL TO CLERICAL
	PROJECTED SCORES					
IMMEDIATE RECALL	65.83	72.38	62.13	0.110	0.493	0.039
FOLLOWING DIRECTIONS	68.89	73.08	55.65	0.304	0.014	0.001
RECOGNIZING TRANSITIONS	61.67	68.38	53.91	0.129	0.143	0.003
RECOGNIZING WORD MEANINGS	66.11	72.04	72.17	0.214	0.186	0.973
LECTURE COMPREHENSION	65.61	71.46	56.96	0.182	0.072	0.005
OVERALL (*)	68.83	59.67	56.65	0.023	0.001	0.438
ACTUAL SCORES						
IMMEDIATE RECALL	75.89	67.08	63.52	0.022	0.007	0.457
FOLLOWING DIRECTIONS	76.89	72.00	55.87	0.099	0.000	0.003
RECOGNIZING TRANSITIONS	73.78	72.29	59.91	0.783	0.057	0.050
RECOGNIZING WORD MEANINGS	82.22	73.33	66.09	0.047	0.001	0.085
LECTURE COMPREHENSION	62.00	56.38	48.61	0.289	0.009	0.154
OVERALL	72.67	66.29	59.57	0.028	0.000	0.063
DIFFERENCE						
IMMEDIATE RECALL	-10.06	5.29	-1.39			
FOLLOWING DIRECTIONS	-10.00	1.08	-0.22			
RECOGNIZING TRANSITIONS	-12.11	-3.92	-6.00			
RECOGNIZING WORD MEANINGS	-16.11	-1.29	6.09			
LECTURE COMPREHENSION	3.61	15.08	8.35			
OVERALL	-3.83	-6.63	-2.91			

(\*) THE OVERALL PROJECTED SCORE IS NOT AN AVERAGE OF THE SUB-SECTIONS. THIS SCORE IS AN AVERAGE OF HOW THE GROUPS PROJECTED THEY WOULD PERFORM ON THE OVERALL TEST.