A study used qualitative meta-analysis to examine a set of empirical studies concerned with listening instruction. Twenty-four studies (subjects were all ages) published in communication-related journals between 1950 and 1989 were analyzed. Analysis of the papers showed conflicting results, producing no clear findings as to whether listening can or cannot be taught. Results showed that the numerous techniques for teaching listening analyzed in the studies could be placed in three categories: indirect approach, direct/traditional approach, and direct/programmed approach. Conflicting results regarding the effectiveness of each may indicate that the method of instruction alone is not the determining factor when listening instruction is successful. The incentive to internalize instruction and increase listening ability may be an important additional factor. Results also showed no clear pattern regarding length of listening instruction, though more positive results were found for studies with longer periods of instruction than for shorter ones. Method of testing may have contributed to the contradictory results of the studies. Age level appeared to have no impact on the effectiveness of listening instruction. Findings suggest that one explanation which may account for the conflicting results found in the study is that listening is a multidimensional phenomena. Each of the studies may have been teaching and testing a different subskill of listening. (Two tables of data are included and 48 references are attached.) (SR)
LISTENING INSTRUCTION: A QUALITATIVE META-ANALYSIS OF TWENTY-FOUR SELECTED STUDIES

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There has been an enormous amount of material written about listening (Duker, 1964a; Rhodes, 1985a; Witkin, 1990). Of all of the listening studies conducted since the early 1900s, many have investigated the possibility of teaching listening and the effectiveness of various methods of instruction (Devine, 1978; Duker, 1964b; Keller, 1960; Rhodes, 1985b; Coakley & Wolvin, 1990). Over the years, of the studies that addressed the questions about listening instruction, many have reported conflicting conclusions; while some have supported the premise that listening can be taught (e.g., Binder & McClone, 1971; Smeltzer & Watson, 1984), others have rejected it (Palmatier & McNinch, 1972; DeSain, 1983).

In the 1980s, with many states considering the addition of listening instruction to their public school curriculums (Van Rheenen, 1985), teachers and school administrators turned to listening scholars for answers to questions such as, “Can listening be taught?” And if so, “What are the best methods for teaching listening?” And, “How can listening effectiveness be assessed?”

Although the question of listening assessment received quite a bit of attention (e.g., Backlund, Brown, & Jandt, 1980; Rubin, Daly, McCroskey, & Mead, 1982; Watson & Barker, 1984; Rubin & Roberts, 1987; Rhodes, Watson, & Barker, 1990) little has been reported that reflects a review of the literature related to listening instruction. In fact, many early listening instruction research articles failed to include any review of the literature (e.g., Cottrill & Alciatore,
1974; Fawcett, 1966; Giffin & Hannah, 1960; Hollow, 1955; Irvin, 1953; Petrie, 1964; Pratt, 1956; Trivette, 1961). And when an early listening scholar did provide a review of the literature, it was often brief and typically concentrated on studies that supported the conclusions of the scholar’s research (e.g., Brewster, 1966; Erickson, 1954; Furbay, Hedges & Markham, 1966; Johnson & Richardson, 1968).

Statement of the Problem

Research in the area of listening has gone on for years. But what we know about listening is not much more than what was known about listening fifty years ago. Some of this lack of knowledge stems from the difficulty in defining the concept, variable, and/or process. However, some of the difficulty comes from the lack of rigorous research. There probably has not been a strong review of the literature or state-of-the-art piece done since the 1960s.

Trying to determine whether listening can be taught is a worthy undertaking. However, the process is complex and dynamic enough that it must be approached very systematically. To start with, a stronger and more systematic review of the literature would help. Such a review should take care to separate studies according to the type of test used to measure listening effectiveness, the methodology used to operationalize instruction, the time span and depth of instruction, and the presence or absence of incentive or motivation.
Meta-analysis is one method that can be used to effectively review, summarize, and compare existing research. The purpose of this paper is to report the preliminary results of a qualitative meta-analysis of a set of empirical studies concerned with listening instruction.

Meta-Analysis

Rogers (1981) defines meta-research as "the synthesis of primary research results into more general conclusions at the theoretical level. The essence of meta-research is research on research, the analysis of analysis" (p. 2). Rogers suggests that increased use of meta-research in the field of communication will provide useful evidence and information. He argues meta-research is "the intellectual cement that glues a research discipline together, that helps it understand where it is going and what it is finding" (p. 6). Listening research has progressed to the point where scholars must take the time to analyze the existing research in an attempt to find the "cement that glues" the listening literature together (Witkin, 1990; Wolvin & Coakley, 1990; Rhodes, Watson, & Barker, 1990).

Although there are many topics that have been studied under the rubric of "listening research," as was stated above, this paper will focus on listening instruction. The listening literature surrounding the issue of instruction must be synthesized in an attempt to reach general conclusions concerning the possibility and effectiveness of teaching listening. By using qualitative meta-
analysis techniques to examine the listening instruction literature, the study reported in this paper will attempt to take a step in that direction.

**Qualitative Meta-Analysis**

This type of meta-analysis, sometimes referred to as propositional inventory, is "based on synthesizing the verbal conclusions of primary research but not the original quantitative data on which these scientific publications are based" (Rogers, 1981, p. 18). Rather than using statistical analysis, the researcher relies on the descriptive narratives given to explain and describe the findings in each study.

The following criteria have been outlined by Rogers (1981) as guidelines for researchers conducting a qualitative meta-analysis:

1. determine the criteria for inclusion in the meta-analysis, and search the literature for all possible primary sources;
2. include studies that support and reject the proposition being studied;
3. report competing propositions;
4. display the qualitative data in word tables;
5. include a description of the degree of support indicated by the primary research;
6. describe the method used in the meta-analysis;
7. indicate the results of the primary research;
8. include a critical review of the primary research;
9. define the unit of analysis in the smallest terms possible; and
10. analyze as many qualities of the primary research as possible.

When these systematic guidelines are followed for constructing a qualitative meta-analysis, important information can be gleaned from primary research and general conclusions can be drawn. The study reported in this paper used Rogers’ guidelines to compile a qualitative meta-analysis of twenty-four selected studies on listening instruction.

Methodology

Literature Search

An extensive search of the literature was conducted to gather all relevant materials. Manual and computer searches of Social Sciences Citation Index, Psychological Abstracts, Resources in Education, and, most importantly, the Index to Journals in Speech Communication revealed the studies included in the meta-analysis. The reference lists of each research study uncovered in the original search were used to make sure other studies were not being overlooked. Only articles published in academic journals related to communication were collected—unpublished master theses, dissertations, and convention papers were not included in the analysis.

To be included in the analysis, a published article had to meet the
following criteria:

1. The published article had to evaluate a planned training intervention program with the purpose of increasing the subjects' listening skills, and

2. The published article had to present a quantitative analysis of the research results.

There were twenty-four articles published in communication-related journals that met these two criteria and qualified to be included in the qualitative meta-analysis. To insure that all of the teaching of listening literature was reflected in the meta-analysis, no studies were excluded on the basis of quality or recency (Glass, 1977).

Most of the research investigating the teaching of listening was published in the 1950s and 1960s. Only a few researchers have conducted recent studies on the possibility and effectiveness of listening instruction. Of the twenty-four research studies collected, eighteen were published between 1950-1969 while only six of these studies were published between 1970 and 1989. The communication literature seemed to move away from listening instruction research in the 1970s without summarizing the findings of this important body of literature. This created an omission in the literature that this study hopes to fill.

Analysis

The twenty-four articles were analyzed according to the propositional inventory format proposed by Rogers (1981). The data collected was displayed
in a word table constructed around the following six categories: method of instruction, incentive to internalize instruction, length of instruction, subjects, testing method, and research design. The complete results of the analysis are compiled in Tables 1 and 2.

The purpose of the analysis was threefold: 1) to review what the communication journals tell us about teaching listening, 2) to reach some general conclusions concerning the possibility of teaching listening, and 3) to discuss any variables that may account for conflicting results. (Of the twenty-four databased studies collected, sixteen supported and 8 rejected the premise that listening can be taught.).

Results

Method of Instruction

Numerous techniques for teaching listening have been employed in the various studies analyzed for this report. These techniques can be placed in one of three categories; (1) indirect approach, (2) direct/traditional approach, and (3) direct/programmed approach.

The indirect approach to teaching listening involves instructing subjects in a skill related to listening without direct emphasis or instruction in listening. The incidental effect the instruction may have on listening is then tested. The direct/traditional approach utilizes specific instruction in listening. This approach uses the traditional teaching techniques of lectures, readings,
writings, discussions, and exercises to teach listening. These various techniques are often used in different combinations to form an instructional unit. The programmed approach has also been a popular method of instruction. Tape-recorded material and exercise worksheets are used in this approach. Often the instruction is self-administered, although an instructor may be present to facilitate the learning process.

Of the twenty-four articles included in this qualitative meta-analysis; one used the indirect approach, fifteen used the direct/traditional approach, six used the direct/programmed approach, while two compared the direct/traditional with the direct/programmed technique.

Petrie (1964a) found that the indirect approach of instruction in note-taking skills did not increase listening ability. While some of the authors of the other twenty-three studies never directly tested teaching listening by using the indirect approach, they implied in their reviews of the literature that indirect approaches fail (Furbay, Hedges & Markham, 1966; Johnson, 1951; Johnson & Richardson, 1968). It would appear that an indirect approach is not a successful method of instruction for teaching listening.

The most popular method of instruction studied was the direct/traditional approach. A combination of lectures, discussions, listening exercises, modeling, and reading and writing on the subject of listening were used in these traditional approaches to listening instruction. Several studies
concluded that listening could not be taught by the traditional approach (Brewster, 1966; Brooks & Hannah, 1969; Meyer & Williams, 1965; Petrie, 1964a), while various other studies concluded that listening could be taught by this method of instruction (Binder & McGlone, 1971; Erickson, 1954; Fawcett, 1966; Furbay, Hedges & Markham, 1966; Giffin & Hannah, 1966; Hollingsworth, 1966; Hollow, 1955; Irvin, 1954; Pratt, 1956; Smeltzer & Watson, 1984, 1985; Trivette, 1961).

The results from studies using direct/programmed instruction, tape-recorded material and workbook exercises, were also contradictory. Some studies found programmed instruction did not increase listening skills (DeSain, 1983; Hollingsworth, 1964; Hollingsworth, 1965), while others found programmed instruction successful as a method of teaching listening (Binder & McGlone, 1971; Cottrill & Alciatore, 1974; Heilman, 1951; Johnson, 1951; Johnson & Richardson, 1968).

Inconsistency of results was typical of studies reviewed for this analysis. Cottrill and Alciatore (1974) found the Xerox Effective Listening Course, a direct/programmed approach, to be superior to the traditional approach of teaching listening, while, Binder and McGlone (1971) reported that the direct/programmed approach of the Xerox Course, was not more effective in teaching listening than the traditional approach. They did find both methods significantly more successful in increasing listening ability than receiving no
Analysis of the various methods of listening instruction provides little insight into which approach to the teaching of listening, if any, is successful. Several studies which involve similar teaching methods resulted in different conclusions, some indicating that listening cannot be taught and others indicating it can be taught. These conflicting results seem to suggest that the method of instruction alone is not the determining factor in producing results that accept or reject the premise that listening can be taught.

Incentive to Internalize Instruction

One interesting aspect that surfaced was the level of incentive used in a study. Although the method of teaching listening was similar in many of the studies, the level of incentive the subjects had for internalizing the instruction was different.

Incentive was not mentioned in any of the studies that concluded listening could not be taught. However, two of these studies unknowingly created low incentive by telling the subjects they would not be checked or graded on the material presented (Brewster, 1966; Palmatier & McNinch, 1972).

Several of the studies that concluded listening could be taught indicated incentive as part of the instruction. Johnson and Richardson (1968) provided high incentive by grading students on the listening tests and reporting throughout
the instructional unit how each class performed compared to the other classes. Giffin and Hannah (1966) offered similar incentive by testing the progress of the students midway through the unit and reporting that progress. Smeltzer and Watson (1984) actually tested incentive as a condition of their study. High incentive was created for three groups of students, who were told that if they did not improve their listening scores after instruction they would be required to write an extra report on listening. The three remaining groups were given no additional incentive to internalize the instruction or increase listening ability. The results of the study showed that providing high incentive encouraged the students to incorporate the instruction and improve listening test scores significantly.

The incentive to internalize the listening instruction and increase listening ability may have a dramatic impact on the outcome of a study. Three of the studies that supported the premise that listening can be taught discussed the presence of incentive. Two of the studies that rejected the premise may have unknowingly created low incentive by stressing that the unit was non-graded. Most of the studies failed to mention if incentives were used and to what degree. As a result, this is an area that deserves more research attention. The presence and degree of incentive to internalize instruction may be one explanation for the conflicting results of research related to listening instruction.
The length of listening instruction varied enormously across the studies reviewed. Length of instruction ranged from short periods such as one three-hour session, to long and intense programs and/or semester courses. Some scholars argued that short units of instruction are less successful than long units of instruction (Brewster, 1966; Duker, 1964a). The findings of this analysis do not support the claims of these scholars, and once again we are left with conflicting research results which offer little insight into what length of instruction, if any, is effective.

Some studies found success after long periods of instruction (Binder & McGlone, 1971; Fawcett, 1966; Furbay et al., 1966; Hollingsworth, 1966; Hollow, 1955; Pratt, 1956; Trivette, 1961), while others found long periods of instruction had no impact on listening ability (Hollingsworth, 1964; 1965; Meyer & Williams, 1965; Palmatier & McNinch, 1972). Studies on short units of listening instruction, ranging from one brief three-hour session to twenty five-minute to seven-minute sessions, reported successful results in improving listening (Binder & McGlone, 1971; Irvin, 1954; Johnson & Richardson, 1968; Smeltzer & Watson, 1984), as well as unsuccessful results in listening improvement (Brewster, 1966; Brooks & Hannah, 1969; DeSain, 1983).

With these contradictory results, few conclusions can be reached concerning the impact length of instruction has on increased listening ability, although the research seems to suggest that long periods of instruction are no
more effective or ineffective than short periods of instruction. The amount of
time spent on instruction may not be as significant as some of the early listening
scholars had anticipated.

**Subjects**

The subjects used in the twenty-four studies varied immensely. Subjects exposed to listening instruction ranged from 4th grade students, to high school students, to college students, to middle level managers. The type of subjects used in the study did not seem to have an effect on the results of the research.

Four of the seven studies that reject the premise that listening can be taught were conducted with elementary, junior high, or high school students as subjects (Hollingsworth, 1964; 1965; Meyer & Williams, 1965; Palmatier, 1972). Four of the studies that support the premise that listening can be taught used elementary, junior high, or high school students as subjects (Fawcett, 1966; Hollow, 1955; Pratt, 1956; Trivette, 1961). College students were used as subjects in three of the negative studies (Brewster, 1966; Brooks & Hannah, 1969; DeSain, 1983; Petrie, 1964) and eleven of the positive studies (Binder & McGlone, 1971; Cottrill & Alciatore, 1974; Erickson, 1954; Furbay et al., 1966; Giffin & Hannah, 1966; Heilman, 1951; Irvin, 1953; 1954; Johnson, 1951; Johnson & Richard, 1968; Smeltzer & Watson, 1984; 1985); while middle-level managers were analysed in one additional positive study (Hollingsworth,
The results of these studies would indicate that age is not a factor in determining the success or failure of listening instruction, although none of the studies tested the same method of instruction on different age groups to compare the effectiveness of the particular method on the age group. Additional research is needed in this area to discover if the subject groups do impact the outcome of the study and, if so, why.

Testing Method

Early on, the two most widely used standardized listening tests were the Brown-Carlsen and the STEP (Keller, 1960). It's probably no surprise then that of the twenty-four studies in this analysis, nine used the Brown-Carlsen listening test and seven used the STEP listening test. The remaining test methods consisted of one Ralph Nichols listening test, one Maurice Lewis listening comprehension test, one reading comprehension test, and five author-designed tests.

The Brown-Carlsen test was used in three studies that rejected the listening instruction premise (Meyer & Williams 1965; Palmatier & McNinch, 1972; Petrie, 1964) and in six studies that supported successful listening instruction (Binder & McGlone, 1971; Cottrill & Alciatore, 1974; Erickson, 1954; Furbay et al., 1966; Hollingsworth, 1966; Johnson & Richardson, 1968). The STEP listening test was used in five studies that reported no significant gains.
in listening ability (Brewster, 1966; Brooks & Hannah, 1969; DeSain, 1983; Hollingsworth, 1964; 1965), while only twice did studies report an increase in listening ability as measured by the STEP (Fawcett, 1966; Giffin & Hannah, 1966). All eight of the remaining tests reported positive results (Heilman, 1951; Hollow, 1955; Irvin, 1954; Johnson, 1951; Pratt, 1956; Smeltzer & Watson, 1984; 1985; Trivette, 1961).

While studies using the Brown-Carlsen reported more positive research results than negative, studies using the STEP listening test reported more negative results than positive. These differing test results may be explained by the fact that both tests appear to be testing different dimensions of listening. The Brown-Carlsen test was designed to measure such skills as immediate recall, following directions, recognizing transitions, recognizing word meaning, and lecture comprehension (Watson & Barker, 1984). The STEP listening test was designed to measure the ability to comprehend, interpret, and evaluate and apply the message (Witkin, 1986). Perhaps the skills measured by the Brown-Carlsen are more easily taught than the skills tested by the STEP listening test.

The actual construction of the tests may also have had an effect on the research results. Scholars have criticized the content validity, predictive validity and the reliability of both the Brown-Carlsen and STEP listening tests (Bateman, Frandsen & Dedmon, 1964; Kelly, 1963; 1967; Fisher, 1973; Petrie, 1964b). If these criticisms are indeed valid, the inconsistency of the studies'
results may be due to this aspect alone.

Research Design

The most popular research design in the studies examined for this qualitative meta-analysis was the pretest/posttest/control design. Nineteen of the twenty-four studies used this research design.

Scholars who reject the premise that listening can be taught often point to pretest contamination as the cause of positive results in listening instruction research (Meyer & Williams, 1965; Petrie, 1964a). However, examination of the studies for this analysis shows that the majority (seventy-five percent) of the positive studies specifically mentioned controlling for pretest contamination effects through the use of covariance statistical analysis or other statistical techniques (Binder & McGlone, 1971; Cottrill & Alciatore, 1974; Erickson, 1954; Fawcett, 1966; Giffin & Hannah, 1966; Heilman, 1951; Hollow, 1955; Irvin, 1954; Johnson & Richardson, 1968; Pratt, 1956; Smeltzer & Watson, 1984; 1985). This finding minimizes the argument that pretest contamination is the only cause of positive research results.

Conclusions

Because of conflicting results, the findings of this qualitative meta-analysis do not clearly indicate whether listening can or cannot be taught. Although no clear explanation for the conflicting results of the studies analyzed was found, we can begin to construct some conclusions that may help to direct
Approach and Incentive. The indirect approach to teaching listening appears to be the least successful method of instruction for increasing listening ability. The effectiveness of the direct/traditional approach and the programmed approach of listening instruction are less clear, although the programmed approach resulted in fewer positive results. The conflicting results of the research in this area may indicate that the method of instruction alone is not the determining factor when listening instruction is successful. The incentive to internalize listening instruction and increase listening ability may be one important additional factor. It appears that studies that supply high incentive to internalize listening instruction are more successful in teaching listening than studies that provide little or no incentive.

Length. A clear pattern also failed to emerge when the criterion was length of listening instruction. Long periods and short periods of instruction were reported to be both effective and ineffective. But again, as was the case with the method of instruction, more positive results were found for studies with longer periods of instruction than for shorter ones.

Testing. Method of testing may have contributed to the contradictory results of the studies in this analysis. The Brown-Carlsen and STEP listening tests have been reported to be testing different dimensions of listening. The validity and reliability of both tests have also been questioned. Pretest
contamination, an often used explanation for the positive results of the research that concluded that listening can be taught, was not reported to be a significant determinant in the analyzed studies. The majority of the studies that supported the premise of teaching listening reported controlling for pretest contamination by using specified statistical techniques.

**Age.** Lack of clarity was also the case when considering the subjects' age level. Age level appeared to have no impact on the effectiveness of listening instruction.

**Overall.** The findings of this qualitative meta-analysis confirm that there are numerous contradictions in the research surrounding the question of whether listening can be taught. One overriding explanation which may account for the conflicting results in the various areas of analysis used in this qualitative meta-analysis is that listening is a multidimensional phenomena (Bakan, 1956; Duker, 1964a; Petrie, 1964b). Listening is not one distinct skill, but a collection of skills and/or subprocesses. Each of the studies analyzed for this paper might have been unknowingly teaching and testing a different subskill of listening. Some subskills may be teachable, while others may not be. Some of the studies might have even used an inappropriate test for the subskill taught during the instructional period. Further analysis involving multidimensional methods needs to be conducted to support or reject this observation.
Directions for Future Research

Method of instruction is the primary category still missing from this qualitative meta-analysis. Although it made some sense to classify the approach researchers took to the instruction of listening using categories like "indirect," "direct/traditional," "programmed," and "unique," an additional examination of the details of each approach needs to be made. In other words, the specific content that was taught about listening and the instructional strategies that were used need to be articulated for each study.

Additional studies applying meta-research techniques are needed to reach general conclusions from previous research. This study was limited in scope with only twenty-four selected studies being analyzed, and method—qualitative rather than quantitative. Additional research is needed to support or reject the conclusions of this study. Many additional quantitative studies on the subject of teaching listening could be collected by searching masters thesis, dissertations, conference papers, and journals from other disciplines—especially education. This material must be synthesized in order to refute, verify, and/or build on the conclusions of this study.

The results of this study also to point to the need for increased replication in research. One way to discover the accuracy of the results of the analyzed studies would be to replicate the studies to discover if the results are consistent. The use of increased replication of studies in this area of listening
research might help answer some of the questions left unanswered by this qualitative meta-analysis. These replications or meta-analyses should be followed by studies that try to control and eliminate particular teaching strategies and other intervening variables in a step-by-step fashion. In addition, new studies that define listening as a multidimensional process and use multivariate procedures for analyzing the data must be conducted.

Listening researchers need to take a fresh approach toward seeking an answer to the question, "Can listening be taught?" Although there is some explanation for the inconsistencies found in the results of the teaching of listening literature, only increased research in this area will unlock all the mystery of these conflicting results. Qualitative and quantitative meta-analysis, replication, and new multivariate studies seem to be the forms of research that will benefit this endeavor most. Until a fresh approach is taken in this area, the debate over the premise that listening can be taught will continue.
References


### Table 1 (20)
Listening Studies Used in Meta-Analysis

<table>
<thead>
<tr>
<th>STUDIES THAT</th>
<th>Method of Instruction</th>
<th>Incentive to Internalise</th>
<th>Length of Training</th>
<th>Subjects</th>
<th>Testing</th>
<th>Research Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>BREVSTER</td>
<td>TRADITIONAL Listening Exercises</td>
<td>Non-graded</td>
<td>Twenty 5-7 min.</td>
<td>College Freshmen</td>
<td>STEP</td>
<td>Pre/Post/Cont</td>
</tr>
<tr>
<td>(1966)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BROOKS &amp; KAMAU</td>
<td>TRADITIONAL Lectures &amp; Readings &amp; Exercises</td>
<td>None</td>
<td>Three 1 hour</td>
<td>College Students 1A - 1B</td>
<td>STEP</td>
<td>Pre/Post/Cont</td>
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<td>(1969)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESAIN</td>
<td>PROGRAMMED Xerox</td>
<td>None</td>
<td>3.5 hours</td>
<td>69</td>
<td>STEP</td>
<td>Pre/Post/Cont</td>
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<td>(1983)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HOLLINGSWORTH</td>
<td>PROGRAMMED Tape-recorded Material &amp; Worksheets</td>
<td>None</td>
<td>Ten 15 min.</td>
<td>Eighth Graders</td>
<td>STEP</td>
<td>Post/Cont</td>
</tr>
<tr>
<td>(1964)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOLLINGSWORTH</td>
<td>PROGRAMMED Tape-recorded Material &amp; Worksheets</td>
<td>None</td>
<td>Thirty 1 hour</td>
<td>Fifth Graders</td>
<td>STEP</td>
<td>Post/Cont</td>
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<td>(1965)</td>
<td></td>
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<td></td>
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<tr>
<td>MEYER &amp; WILLIAMS</td>
<td>TRADITIONAL Readings &amp; Writing &amp; Discussion &amp; Exercises</td>
<td>None</td>
<td>Forty 1 hour</td>
<td>High School Sophomores</td>
<td>STEP</td>
<td>Pre/Post/Cont</td>
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<td>(1965)</td>
<td></td>
<td></td>
<td></td>
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<td>PALMATTIER &amp; MOULTON</td>
<td>INDIRECT Note-taking</td>
<td>Non-Graded</td>
<td>Eleven 1 hour</td>
<td>High School Juniors</td>
<td>STEP</td>
<td>Pre/Post/Cont</td>
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<td>(1972)</td>
<td></td>
<td></td>
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<tr>
<td>PETRI</td>
<td>TRADITIONAL Lectures &amp; Discussions &amp; Exercises</td>
<td>None</td>
<td>Four 50 min.</td>
<td>College Students</td>
<td>STEP</td>
<td>Pre/Post/Cont</td>
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<td>(1964)</td>
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Table 1 (22)
Listening Studies Used in Meta-Analysis

<table>
<thead>
<tr>
<th>Studies That Support Listening Instruction</th>
<th>Method of Instruction</th>
<th>Incentive to Internalize</th>
<th>Length of Training</th>
<th>Subjects</th>
<th>Testing</th>
<th>Research Design</th>
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<tr>
<td>HOLLINGWORTH (1966)</td>
<td>TRADITIONAL</td>
<td>None</td>
<td>Ten months</td>
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<td>Brown-Carlsen</td>
<td>Pre/Post</td>
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<td></td>
<td>Lectures &amp; Discussions</td>
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<td>2 hour sessions</td>
<td>Middle-level</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Managers</td>
<td></td>
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<tr>
<td>MOLLON (1955)</td>
<td>TRADITIONAL</td>
<td>None</td>
<td>Thirty months</td>
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<td>Author</td>
<td>Cont</td>
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<td></td>
<td>Listening Exercises</td>
<td></td>
<td>25 min. sessions</td>
<td>5th graders</td>
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<td>IRVING (1953, 1954)</td>
<td>TRADITIONAL</td>
<td>None</td>
<td>Seven months</td>
<td>1000</td>
<td>Ralph Nicholoe</td>
<td>Pre/Post/Cont</td>
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<td>Lectures &amp; Exercises</td>
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<td>10 min. sessions</td>
<td>College</td>
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<td></td>
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<td>Freshman</td>
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<td>None</td>
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<td>JOHNSON &amp; RICHARDSON (1968)</td>
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<td>PEATT (1956)</td>
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<td>None</td>
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<td>10 min. Conference</td>
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<td>TRIVETTE (1961)</td>
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<td>None</td>
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By Maurice Louis
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<th>STUDIES THAT SUPPORT LISTENING INSTRUCTION</th>
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<th>Incentive to Internalize Instruction</th>
<th>Length of Training</th>
<th>Subjects</th>
<th>Testing Method</th>
<th>Research Design</th>
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<td>BINDER &amp; McCLONE (1971)</td>
<td>COMBINATION</td>
<td>Lectures &amp; Exercises &amp; Discussions</td>
<td>Xerox</td>
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<td>12 hours</td>
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<td>COTTRILL &amp; ALCIATORE (1974)</td>
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<td>FAWCETT (1966)</td>
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<td>20 min.</td>
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