A study of the relationship between listening and intelligence levels of upper elementary grade pupils in the Matilda Harris Elementary School Saint Marys, Georgia, 1969-70

Altermese Roberts Washington

Atlanta University

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A STUDY OF THE RELATIONSHIP BETWEEN LISTENING AND INTELLIGENCE LEVELS OF UPPER ELEMENTARY GRADE PUPILS IN THE MATILDA HARRIS ELEMENTARY SCHOOL SAINT MARYS, GEORGIA, 1969-70

A THESIS
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION, ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

BY

ALTERMESE ROBERTS WASHINGTON
SCHOOL OF EDUCATION
ATLANTA UNIVERSITY
ACKNOWLEDGEMENT

The writer wishes to express her sincere appreciation for the guidance, kindness and patience shown by the eminent Professors Mitchell, Mixon, Smothers and Frick in the preparation of this thesis. She is also grateful to Ann Stoddard for the assistance given her in the initiation of this research.
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CHAPTER I

INTRODUCTION

Rationale.--Studies involving intelligence and its relation to the disciplines of learning have been conducted by various researchers during the past half century. However, there are still many unanswered questions that keep researchers constantly searching for more information to provide better answers to the many questions. Listening and intelligence are in this realm. It is no wonder that administrators, teachers, and other educators feel keenly the need for more studies relating to listening. If boys and girls are to utilize all of their potentials to the fullest extent, the unused reservoirs for learning, which the writer believes to be related to listening capacity must be understood and developed.

Today, as never before, the ability to listen intelligently and discriminately is highly significant and extremely important in the complete development of mental powers. This highly technical society demands that modes of communication be more effective. Listening is such an intrinsic facet of communication that more and more attention should be focused upon it. No longer can the ability to listen be taken for granted or assumed to be developed naturally as a result of maturation. Listening also goes beyond the emphasis on attentiveness or courtesy. Boys and girls need purposefully planned and guided language experiences so that they can become increasingly capable of listening critically and selectively to what they hear.¹

It might be said that listening and intelligence have a great deal in common because they both involve mental processes or thought. In another sense, they may be termed as being interdependent. For example, one may use his efficient listening ability to guide him in acting intelligently in a given situation.

Contribution to Educational Knowledge.--It is hoped that the information secured from this study will help elementary teachers and other educators to realize more keenly the significance of being aware of the functional relationship between listening and intelligence.

Statement of Problem.--This study attempted to determine the relationship between listening and intelligence test performances, as revealed by the results from selected standardized measures of listening comprehension and verbal intelligence, commonly used in school settings of this nation.

Limitations of the Study.--This study was limited to fifty-nine fifth, sixth and seventh grade pupils of the Matilda Harris Elementary School, during the school year, 1969-70. Two tests were administered during the study: namely, the California Short-Form Test of Mental Maturity, Form S--(hereafter referred to as CTMM), and the Sequential Test of Educational Progress: (Listening), Form 3A and 4A--(hereafter referred to as STEP).

Purposes of the Study.--The purposes of this study were:

1. To determine the relationship between listening comprehension and total performance on the test of intelligence

2. To determine the relationship between listening capacity and selected subtest results as reflected by the results of the CTMM and STEP Tests

3. To determine if there were significant differences between the relationships found in the test performances of boys and girls at this level

4. To determine relationships between results of test performances among the three classes used in this study
5. To identify the educational implications, derived from the analysis and interpretation of the data pertinent to this research

Local of Study.---This study was conducted at the Matilda Harris Elementary School in Saint Marys, Georgia. This school is one of the three black elementary schools of the Camden County School System.

Period of Study.---This study was conducted in the fall of the 1969-1970 school term.

Procedural Steps.---The following procedural steps were taken:

1. Literature related to the problem was surveyed, abstracted and summarized.

2. Permission to conduct the study was requested from and granted by the proper school officials in Camden County.

3. Tests were administered to pupils by the investigator over a two week period, and in groups of twenty pupils.

4. The data were collected, compiled, analyzed, arranged for interpretation and statistical treatment.

5. Findings, conclusions, implications and recommendations were drawn from analysis of data collected.

Survey of Related Literature.---Literature pertinent to this study was reviewed in the following areas: (the nature of listening, (b) the nature of intelligence, and (c) the relationship of listening to intelligence.

The Nature of Listening.---Pratt determined the nature of listening to be reflected in the following statement:

Listening is the act of receiving oral language. This type of listening involves at least three steps: the recall or deduction of meaning for spoken symbols, the comprehension of ideas representing different combinations of these word symbols and the ability to use the ideas printed to build understanding by adding to, modifying or rejecting previous learning.1

---

According to Lefevre, in mastering the skills of speaking and listening, one must first learn the gross general features of the sound system. The letters of our alphabet constitute an arbitrary graphic system used by people speaking different languages. Letters have no sounds, and they make no sounds. Speakers utter basic language units in closely connected sequences called speech patterns. In each of these patterns, the basic language unit is modified to some extent by its immediate environment consisting of other sounds, and also by the physiological requirements of articulating any given sequence of sounds. These basic units crucial to sound and hence to speech are the phonemes. Moreover, another equally important segment needed to master speaking and auding is the understanding of morphemes. A morpheme is a minimal meaningful unit of speech sounds in a language. We consider phonemes to be the atoms of language and morphemes to be the molecules.¹

Research points out that emphasis upon listening skills can be instrumental in raising the general level of listening for most pupils, provided that systematic emphasis is placed on developing and practicing the more significant skills associated with the process of listening, rather than the superficial aspects of listening. Teachers need to be aware of the possible effects of their questions on the listening and thinking of their pupils. For example, there is a difference between the processes involved in arriving at answers to these questions following a reading situation: "How many tickets were there? When did you get the first hint that the sale of tickets was going to be a success?" Pupil-developed standards and pupil self-evaluation at frequent intervals have been found to be helpful.

by many teachers, as they seek to improve listening and thinking abilities.¹

The Nature of Intelligence.—One outstanding theory which has been advanced to explain the nature of intelligence is called the "Factor Theory." Guilford has conducted several meaningful studies which classify all intellectual abilities in a systematic framework called the structure of intellect. He states:

There are five major groups of intellectual abilities: cognition, memory, convergent behavior, divergent behavior and evaluation. According to this model, human intelligence can ultimately be arranged into one hundred twenty components, which can be classified in three different ways: according to content, product, and operation. Content refers to the kind of information involved; subject areas of concern which are figural, symbolic, semantic and behavioral. Product refers to the different forms which each type of content may take: the areas of units, classes, relations, systems, transformations, implications. Operation generates performance on a particular bit of information; the mind factors of cognition, memory, divergent thinking, convergent thinking and evaluation.²

Cognition is a higher process of intelligence, crucial to the educational system today. The cognitive process has to do with the recall or recognition of knowledge, and the development of intellectual abilities and skills of a higher order, which Siegel and Hooper define as "the field of thought process."³

A vital part of cognition is explained by Harlow:

The phrase "learning set" is an element of the cognitive process. This approach implies that intelligent behavior is learned and could be cultivated by teachers, and that "set" supplies the basis for insightful problem solving. In school settings where

¹Ibid.


the idea of thought is an active organization of mental processes, effective teaching is seen as consisting primarily of what we get out of the children instead of what we put into them.1

Relationship Between Listening and Intelligence.—The extent to which learning is aided by the listening skills has intrigued many investigators. Rose Zelig states that,

The mind is a funny thing. It won't stand still unless held by a strong force. This has both advantages and disadvantages. It is useful because it protects men and animals by making them alert and able to give immediate attention to anything that comes along. The problem of education is to get the attention and hold it; otherwise learning is impossible . . .. To listen properly one must attend with mind and body.2

Strickland's version of the various levels or stages of listening coincides with Piaget's theory of the development of intelligence. According to Piaget, the development of intelligence progresses through the stages from birth to maturity. He categorized these stages as follows:

1. Sensori-motor stages, from birth to about ten months. Characterized by intelligence of action.

2. Pre-operational stage, from eighteen months to about seven years. The child does not use logical thinking but makes judgments in terms of how things look to him.

3. Concrete operational stage, seven to about twelve years of age. Such logical operations as reversibility and association take place.

4. Propositional thinking stage, twelve years and above.3

Children vary greatly in their ability to listen during the formative years. However, they have a tendency to develop through stages of


listening similar to those noted in the development of intelligence.

The stages of listening appear to be these:

- Little conscious listening except as the child is directly concerned with what is being presented. Easily distracted by people and things in the environment. Half listening while holding fast to own ideas and waiting to insert them at the first opportunity.
- Listening passively with apparent absorption but little or no reaction.
- Listening and expressing some reaction through questions or comments.
- Listening with evidence of genuine mental and emotional participation.
- Listening with real meeting of minds.¹

Intensive listening requires great effort. This kind of listening calls for a definite purpose to elicit specific items of information to attain understanding, and to follow carefully the sequence of ideas. The individual involved has to reach back into his mental packet to help him concentrate and do critical listening. On the other hand, exploratory listening causes the listener to alert his mind to find matters of new interest and grasp additional information on a topic.²

A Survey of Research Conducted in the Areas of Listening and Intelligence.—Charles Kelly was involved in a study of the listening ability, behavior, and attitudes, of the management personnel in a manufacturing plant. When a group of industrial supervisors was given a "surprise" listening test (the Purdue Listening Inventory), their comprehension was less related to general mental ability (as measured by the Otis Quick-Scoring Test) than when they knew in advance that they were to be tested, (as measured by the Brown-Carlsen and STEP Listening Tests). The diff-

²Ibid.
ference between the results from purposeful listening and haphazard listening was statistically significant at the .05 level of confidence.\textsuperscript{1}

Anderson did a study which was concerned with the relationship between listening and intelligence as well as listening and general school achievement. He concluded that the pupils in this study, listened above the average for fourth, fifth and sixth graders throughout the United States. There was found to be a highly significant improvement in listening competence in favor of the girls in the study. There was a range of relationships from moderate to high between listening and each of the subject areas which were tested.\textsuperscript{2}

**Summary of Related Literature.**—Listening is a complex mental process that requires effort and thoughtful attention. As one listens, he does four things all at one time. First, he recognizes the sound patterns that he hears. Second, as he recognizes the sound patterns he puts meaning into them. Third, he reacts to the sounds with his own background of experiences. Fourth, he puts the material into perspective. In his experience with listening, the listener frequently includes all or a portion of what he hears into himself to be remembered.\textsuperscript{3}

Intelligence is multifaceted and it gradually develops in a cumulative way. Since cognition embraces thought and concept formation, educators should put more emphasis on this factor of the intellect.

\textsuperscript{1}Charles M. Kelly, "Mental Ability and Personality Factors in Listening," Quarterly Journal of Speech, XLIX (April, 1963), pp. 152-156.

\textsuperscript{2}Harold A. Anderson, "A Study of Intelligence and Achievement at the Fourth, Fifth and Sixth Grade Level," Journal of Educational Psychology, XXXI (March, 1963), pp. 36-66.

The facets of listening and intelligence are interrelated, and can be nurtured as they emerge through each stage of development. Providing each stage is set with stimulating experiences for the learner to delve into for optimal growth.
CHAPTER II
PRESENTATION, ANALYSIS, AND INTERPRETATION OF THE DATA

Introductory Statement.—This study was made primarily to determine the relationship between intelligence and listening among upper elementary grade pupils at the Matilda Harris Elementary School.

The Following Data Were Collected, Analyzed and Interpreted:

1. Data on the relationship between listening and intelligence among the three selected groups of pupils
2. Data on the relationship between listening and intelligence among boys and girls
3. Data on the relationship between listening and intelligence among the three classes

Subjects Involved.—The subjects involved in this research were [Group A (fifth grade), Group B (sixth grade) and Group C (seventh grade)] pupils of an elementary school in southeast Georgia, at the Matilda Harris Elementary School in St. Marys, Georgia. They come from families of similar backgrounds which may be classified as being the lower middle-class strata. The education level of the parents was approximately junior high school. Most of the parents provide a minimum amount of educational materials for their children. The chronological ages of the subjects ranged from ten to thirteen years and three months, showing a mean age of eleven years, three months, as shown in Table 1. The average I. Q. score obtained from the group was 92.59 or 93, with most frequent scores falling in the intervals of 81-85, 71-75 and 101-105 as shown in Figure 1.

Correlations Between Paired Variables for Each Group.—Table 2, page 14, presents the data on the correlation for paired variables: listening and total intelligence, listening and logical reasoning, listening and numerical reasoning, listening and verbal concepts and listening and
memory for Groups A, B, and C. [The data revealed a positive and significant relationship between listening and all the components as well as total intelligence for each group involved.]

**TABLE 1**

CHRONOLOGICAL AGE RANGES OF SUBJECTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Age Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>10.00 - 11.3</td>
</tr>
<tr>
<td>Group B</td>
<td>10.11 - 11.9</td>
</tr>
<tr>
<td>Group C</td>
<td>11.10 - 13.3</td>
</tr>
</tbody>
</table>

Mean 11.3

**FIGURE 1**

FREQUENCY POLYGON FOR THE DISTRIBUTION OF SUBJECTS' I.Q. SCORES

Correlation Between Paired Variables for Boys and Girls.---According-
ing to Table 3, page 15, [the correlation data for the paired variables of listening and intelligence for boys and girls revealed that both "r's" were significant.]

Correlation Between Paired Variables for the Total Groups.--[The data shown in Table 4, page 16, indicated a positive and significant relationship between the variables of listening and total intelligence and between the four factors, respectively for the fifty-nine pupils.]

The Differences Between Correlations for Groups A and B.--Referring to Table 5, page 17, one finds that the difference of the correlation of listening and total intelligence for Group A was indicated by an "r" of .975 with a "z_r" score equivalent of 2.18. The difference between the two "z_r's" was 1.11. The "t" ratio was found to be 3.25, and it was significant for it was beyond the range of 2.58 at the one percent level of confidence.

Table 5, also reveals that the differences between the correlations of listening and logical reasoning, listening and numerical reasoning, listening and verbal concepts, and listening and memory were not significant for Groups A and B.

The Differences Between the Correlation Data for Groups A and C.--The data of differences of correlations between total intelligence and listening for Group A indicated an "r" of .975 with a "z_r" score of 2.30. The "r" for Group C stood at .83 with a "z_r" score of 1.19. The difference between the two "z_r's" was 1.11. The "t" ratio was found to be 3.22, which was significant at the one percent level of confidence (see Table 6, page 18).

Table 6, also reveals that the differences between the correlations for the four factors of the CTMM and the STEP Listening tests were not
Significant Differences Between the Correlations for Groups B, C, and According to Sex.--In Tables 7 and 8, pages 19 and 20, there were no statistical significant differences found in the correlation data between listening and intelligence, for none of the "t's" were equal to nor greater than a "t" of 2.58 at the one per cent level of confidence.
<table>
<thead>
<tr>
<th>Paired Variables</th>
<th>GROUP A</th>
<th></th>
<th></th>
<th></th>
<th>GROUP B</th>
<th></th>
<th></th>
<th></th>
<th>GROUP C</th>
<th></th>
<th></th>
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<tr>
<td></td>
<td>Number</td>
<td>&quot;r&quot;</td>
<td>&quot;r&quot;</td>
<td>Significant</td>
<td>Confidence</td>
<td>Number</td>
<td>&quot;r&quot;</td>
<td>&quot;r&quot;</td>
<td>Significant</td>
<td>Confidence</td>
<td>Number</td>
<td>&quot;r&quot;</td>
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<tr>
<td>Listening and Total Intelligence</td>
<td>20</td>
<td>.975</td>
<td>.393</td>
<td>.01</td>
<td>20</td>
<td>.81</td>
<td>.393</td>
<td>.01</td>
<td>19</td>
<td>.83</td>
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<td>.712</td>
<td>.393</td>
<td>.05</td>
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<td>.52</td>
<td>.393</td>
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<td>19</td>
<td>.73</td>
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<td>.393</td>
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<td>19</td>
<td>.61</td>
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<td>20</td>
<td>.82</td>
<td>.393</td>
<td>.01</td>
<td>19</td>
<td>.86</td>
<td>.403</td>
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TABLE 3
CORRELATION BETWEEN LISTENING AND INTELLIGENCE ACCORDING TO SEX

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<thead>
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<th>Paired Variables</th>
<th>N</th>
<th>&quot;r&quot;</th>
<th>&quot;r&quot;</th>
<th>Significant Level</th>
<th>N</th>
<th>&quot;r&quot;</th>
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<td>Criterion &quot;r&quot;</td>
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<td>Level of Confidence</td>
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<tr>
<td>Listening and Total Intelligence</td>
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<td>.327</td>
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<td>.01</td>
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### TABLE 5

**SIGNIFICANT DIFFERENCES BETWEEN CORRELATIONS OF LISTENING AND INTELLIGENCE FOR GROUPS A AND B**

<table>
<thead>
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<th>Group B</th>
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<tr>
<td></td>
<td>N</td>
<td>&quot;zr&quot;</td>
<td>&quot;zr&quot; Score Equivalent*</td>
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<td>.839</td>
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*"zr = the transformed value of \( r \).*
TABLE 6

SIGNIFICANT DIFFERENCES BETWEEN CORRELATIONS OF LISTENING AND INTELLIGENCE FOR GROUPS A AND C

<table>
<thead>
<tr>
<th>Paired Variables</th>
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<td>&quot;r&quot;</td>
<td>Fisher</td>
<td>N</td>
<td>&quot;r&quot;</td>
<td>Equivalent*</td>
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<td></td>
<td></td>
<td></td>
<td>&quot;z^r&quot; Score Equivalent*</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Listening and Total Intelligence</td>
<td>20</td>
<td>.975</td>
<td>2.30</td>
<td></td>
<td>19</td>
<td>.83</td>
</tr>
<tr>
<td>Listening and Logical Reasoning</td>
<td>20</td>
<td>.712</td>
<td>.89</td>
<td></td>
<td>19</td>
<td>.73</td>
</tr>
<tr>
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<td>20</td>
<td>.829</td>
<td>1.19</td>
<td></td>
<td>19</td>
<td>.61</td>
</tr>
<tr>
<td>Listening and Memory</td>
<td>20</td>
<td>.839</td>
<td>1.22</td>
<td></td>
<td>19</td>
<td>.86</td>
</tr>
<tr>
<td>Listening and Verbal Reasoning</td>
<td>20</td>
<td>.760</td>
<td>1.00</td>
<td></td>
<td>19</td>
<td>.53</td>
</tr>
</tbody>
</table>

*z^r = the transformed value of r.
<table>
<thead>
<tr>
<th>Paired Variables</th>
<th>Group B</th>
<th>Fisher &quot;zr&quot; Score Equivalent*</th>
<th>Group C</th>
<th>Fisher &quot;zr&quot; Score Equivalent*</th>
<th>Difference of S.E.D</th>
<th>&quot;t&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening and Total Intelligence</td>
<td>20</td>
<td>.789 1.07</td>
<td>19</td>
<td>.83 1.19</td>
<td>.12  .342 .351</td>
<td></td>
</tr>
<tr>
<td>Listening and Logical Reasoning</td>
<td>20</td>
<td>.834 1.19</td>
<td>19</td>
<td>.73  .93</td>
<td>.26  .342 .760</td>
<td></td>
</tr>
<tr>
<td>Listening and Numerical Reasoning</td>
<td>20</td>
<td>.405  .44</td>
<td>19</td>
<td>.61  .61</td>
<td>.27  .342 .790</td>
<td></td>
</tr>
<tr>
<td>Listening and Memory</td>
<td>20</td>
<td>.793 1.07</td>
<td>19</td>
<td>.86 1.29</td>
<td>.22  .342 .643</td>
<td></td>
</tr>
</tbody>
</table>

\( z_r \) = the transformed value of \( r \).
TABLE 8

SIGNIFICANT DIFFERENCES BETWEEN
CORRELATIONS OF LISTENING AND INTELLIGENCE
ACCORDING TO SEX

<table>
<thead>
<tr>
<th>Paired Variable</th>
<th>Boys N</th>
<th>&quot;r&quot;</th>
<th>&quot;zr&quot; Score Equivalent*</th>
<th>Girls N</th>
<th>&quot;r&quot;</th>
<th>&quot;zr&quot; Score Equivalent*</th>
<th>Difference of Z1 Z2</th>
<th>S.E.D</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening and Intelligence</td>
<td>22</td>
<td>.774</td>
<td>1.02</td>
<td>37</td>
<td>.73</td>
<td>.93</td>
<td>.021</td>
<td>.342</td>
<td>.0231</td>
</tr>
</tbody>
</table>

\[ z_r = \text{the transformed value of } r. \]
CHAPTER III

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Statement of the Problem.--This study attempted to determine the relationship between listening and intelligence test performances as revealed by results from selected standardized measures of listening comprehension and verbal intelligence commonly used in school settings of this nation.

Purposes of the Study.--The purposes of this study were:

1. To determine the relationship between listening comprehension and total performance on the test of intelligence

2. To determine the relationship between listening capacity and selected subtest results as reflected by the results of the CTMM and STEP Tests

3. To determine if there were significant differences between the relationships found in the test performances of boys and girls at this level

4. To determine relationships between results of test performances among the three classes used in this study

5. To identify the educational implications, to be derived from the analysis and interpretation of the data pertinent to this research

Locale and Research Design.--The significant aspect of the locale and research design of this study are indicated below:

1. Place of Study: This study was conducted in the Matilda Harris Elementary School in Saint Marys, Georgia. This school is one of the three black elementary schools of the Camden County School System.

2. Period of Time: This study was conducted during the school term 1969-70, using data from testing which took place in the fall of the school term.

3. Subjects: The subjects of this research were the pupils of grades five, six, and seven at the Matilda Harris Elementary School.
4. **Instruments:** The following instruments were used to gather the necessary data:

   a) **California Short-Form Test of Mental Maturity**
      by E. T. Sullivan, W. W. Clark, and R. W. Tiesgs
      
      (1) The following factors were involved:
      
      (a) Logical Reasoning
      (b) Numerical Reasoning
      (c) Verbal Concepts
      (d) Memory

   b) **Sequential Tests of Educational Progress: Listening**
      Cooperative Test Division, Educational Testing Service
      
      (1) The following factors were involved:
      
      (a) Identifying Main Ideas
      (b) Interpreting Main Ideas
      (c) Applying Main Ideas
      (d) Evaluating Information to which one listens

5. **Method of Research:** The Descriptive-Survey Method of research was used.

**Summary of Related Literature**—The following statements summarize the related literature:

1. Listening and intelligence develop through sequential stages from birth.

2. Intelligent behavior can be developed more fully in a classroom through the individualistic approach to learning.

3. The cognitive approach to listening may unravel many aspects of the listening process which are needed to promote more effective language instruction.

4. Listening is a prerequisite to the other language skills.

5. Listening and intelligence are related in many respects.

**SUMMARY OF THE DATA**

**Organization**—The summary of the basic findings of this research will be reported as follows: (1) Data on correlations and significant
differences in correlations as found on the instruments of the Sequential Tests of Educational Progress: Listening and the California Short-Form Test of Mental Maturity for Groups A, B, and C of the Matilda Harris Elementary School, Saint Marys, Georgia.

Tables 2 through 4

Correlations of Listening and Intelligence.—The lowest "r" for Group A was .712 on Listening and Logical Reasoning, and the highest "r" for Group A was .975 on Listening and Total Intelligence. The lowest "r" for Group B was .405 on Listening and Numerical Reasoning, and the highest "r" for Group B was .82 on Listening and Memory. The lowest "r" for Group C was .53 on Listening and Verbal Concepts. Group A, B, and C obtained significant "r's" on all the paired variables of Listening and Intelligence as shown by the Sequential Tests of Educational Progress: Listening and the California Short-Form Test of Mental Maturity.

For the fifty-nine subjects of Groups A, B, and C, the "r" indices were .752, .605, .688, .724, and .600, respectively, for Listening and Total Intelligence, Listening and Numerical Reasoning, Listening and Memory, Listening and Verbal Concepts as shown by the STEP tests and the CTMM test. The "r's" were significant for they were greater than the criterion of "r" at .327.

Results of measures of correlations according to sex on the Listening and Total Intelligence test indicated that the "r" for the boys was .774 and .253 for the girls. Both "r's" were significant.

Differences Between Correlations.—According to the differences of correlations data, the "t" value for Groups A and B was 3.25, and for Groups B and C. Both "t's" were significant. On Listening and the sub-totals of the intelligence test, there were no significant "t's".
Basic Findings.--Findings concerning the relationship between listening ability and total performances for all three groups show an "r" of .752. This "r" was significant at the one per cent level of confidence, therefore, the two variables are related.

Findings concerning the relationship between listening ability and logical reasoning for all three groups indicate an "r" of .724. This "r" was significant at the one per cent level of confidence, therefore, the two variables are related.

Findings concerning the relationship between listening ability and memory span for all three groups show an "r" of .688. This "r" was significant at the one per cent level of confidence.

Findings concerning the relationship between listening ability and verbal concepts for all three groups show an "r" of .600, which was significant at the one per cent level of confidence. Therefore, the two variables are related (see chart on findings in Figure 2, page 26).

Findings concerning the differences in relationship between the test performances of boys and girls show a "t" ratio of .0231. This "t" was not significant at the one per cent level of confidence. Therefore, there were no significant differences in relationship between the test performances of boys and girls.

Findings concerning the general relationship on the test performances by classes at this level show that the "t" values for Groups A and B, and B and C were not significant at the one per cent level of confidence for the differences of correlations between listening and the components of the intelligence test. One may conclude that neither group obtained a significantly higher "r" index than the other.

Conclusions.--The findings of this study seem to warrant the fol-
There is a significant relationship between listening comprehension and total performance on the test of intelligence.

2. There is a significant relationship between listening capacity and selected subtest results as reflected by the results of the California Short-Form Test of Mental Maturity and the Sequential Tests of Educational Progress: Listening.

3. There is apparently no significant difference between the test performances of boys and girls at this level.

4. There is no significant difference between the test performance among the classes at this level.

Implications.--The conclusions from the findings seem to warrant the following implications:

1. The relationship between listening and intelligence was accepted as an implication for the need of a deeper awareness on the part of teachers regarding the closeness which exists between these two variables, and wider use of listening as a measure of expectancy.

2. There is a need for strengthening direct and indirect teaching to foster listening skills of elementary pupils.

3. There is need for direct teaching to foster a fuller utilization of selected kinds of thinking skills among the pupils involved.

4. Since sex was not a relevant factor in the research findings, it was suggested that boys and girls can profit equally well from help in listening and thinking.

Recommendations.--In view of the findings from this research study, the following recommendations are made:

1. That teaching at the intermediate level and above should stress understanding and interpretation through listening, as well as reading, since a large part of each child's school day is spent in listening.

2. That direct instruction be given to improve listening skills at upper elementary levels through the use of tapes, recordings, specific directions for listening, and practice in listening for specific purposes.

3. That individualized reading and listening instruction in the classroom be provided to aid pupils in attaining their learning potential.
4. That listening test results be more widely utilized as a measure of reading expectancy, since listening and intelligence are positively correlated.

5. That systematic practice in listening might be highly profitable from the intermediate grades through junior high school.

FIGURE 2

DISPERSION OF CORRELATION INDICES ON FINDINGS FOR THE FIFTY-NINE SUBJECTS

Listening and Total Intelligence

Listening and Logical Reasoning

Listening and Memory Span

Listening and Numerical Reasoning

Listening and Verbal Concepts

.752 .724 .688 .603 .600
BIBLIOGRAPHY

Books


**Publications**

Anderson, Harold A. "A Study of Intelligence and Achievement at the Fourth, Fifth and Sixth Grade Level." *Journal of Educational Psychology.* XXXI (March, 1963), 36-66.


Neville, Mark. "Listening is an Art." *Elementary English,* XXXVI (November, 1959), 226.


**Unpublished Material**

In taking this test you will show how well you think and what you do when you face new problems. No one is expected to do the whole test correctly, but you should answer as many items as you can. Work as fast as you can without making mistakes.

Do not write or mark on this test booklet unless told to do so by the examiner.
**DIRECTIONS:** In each row there is one picture that shows something which is the opposite of the first picture. Find it and mark its number.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>9</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>10</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>11</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>12</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>13</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>14</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>15</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

**TEST 1 SCORE**

(number right)
DIRECTIONS: The first three pictures in each row are of things which are alike in some way. Decide how they are alike and then find the picture to the right of the dotted line that is most like them and mark its number.
**DIRECTIONS:** In each row, the first picture is related to the second. The third picture goes with one of the four pictures to the right of the second dotted line in the same way. Find the related picture and mark its number.

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**Test 3 Score:** (marks written here)
**DIRECTIONS:** Each problem tells you that a certain number of coins will add up to a certain amount of money. You are to find the correct number of coins of each kind—cents, nickels, dimes, quarters, and half-dollars. Four possible answers are found beneath each problem. These refer to combinations of coins at the bottom of this page from which to select the correct answer. Work the problem mentally and find the letter of the answer you get among those at the bottom of the page.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Coins</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 coins — 10 cents</td>
<td>abed</td>
<td></td>
</tr>
<tr>
<td>4 coins — 37 cents</td>
<td>opqr</td>
<td></td>
</tr>
<tr>
<td>5 coins — 78 cents</td>
<td>efgh</td>
<td></td>
</tr>
<tr>
<td>5 coins — 71 cents</td>
<td>mnop</td>
<td></td>
</tr>
<tr>
<td>4 coins — 16 cents</td>
<td>nopo</td>
<td></td>
</tr>
<tr>
<td>3 coins — 35 cents</td>
<td>defg</td>
<td></td>
</tr>
<tr>
<td>5 coins — 61 cents</td>
<td>lmnop</td>
<td></td>
</tr>
<tr>
<td>3 coins — $1.05</td>
<td>efgh</td>
<td></td>
</tr>
</tbody>
</table>

**ANSWERS**

<table>
<thead>
<tr>
<th>Cents</th>
<th>Nickels</th>
<th>Dimes</th>
<th>Quarters</th>
<th>Half-Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>a 5</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>b 5</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c 5</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>d -</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>e -</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>f -</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>g -</td>
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<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>h 3</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>i 3</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>j 3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>k 1</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>l 1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>m 1</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>n 1</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>o 1</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>p 1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>q 2</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>r 2</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>s 2</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>t 2</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>u 2</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>v 2</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**PAGE 5/SF-2H-63**
**DIRECTIONS:** Work these problems. Use scratch paper if necessary. Mark the letter of each correct answer.

**E.** There are 5 birds in a tree and 3 birds on a fence. How many birds are there in both places?

- 2
- 7
- 15
- 8

61. At Camp No. 9 it took 10 boy scouts 3 days to set up camp. Camp No. 12, which is the same size, must be set up in one day. How many boys will be needed to do the work?

- 30
- 27
- 13
- 3

62. A newsboy delivered papers to 30 customers for a month. At the end of the month he collected $15.00. How much did each customer pay?

- $5.00
- $2.00
- 50c
- 2.00

63. How many pencils can you buy for 30¢ at the rate of 3 for 10¢?

- 3
- 9
- 15
- 34

64. Mrs. Nelson went to the market. She found a 3 1/2 pound roast that she liked. If the roast cost 90¢ a pound, what did she have to pay for it?

- 90¢
- $2.75
- $3.00
- $3.15

65. A monthly magazine sells for 25¢ a copy. How much is saved by subscribing to it for 36 months at $6.50?

- $1.50
- $1.95
- $2.20
- $2.50

66. Large envelopes that sell for 3¢ each can be had for 30¢ a dozen. How much is saved when they are bought by the dozen?

- 2 1/2 ¢
- 6c
- 9c
- 10c

67. How many feet of railroad track can be laid with 750 ties, if 25 ties are needed for each 50 feet?

- 1500
- 1250
- 325
- 30

68. On a road map each 1/2 inch represents 20 miles. How many miles are represented by 5 inches?

- 10
- 20
- 100
- 200

69. Peter ate one-third of a pie, and Jane ate one-fourth of the pie. What fraction of the pie did the two eat?

- 1/7
- 2/7
- 7/12
- 13/24

70. George lives one-fourth of a mile from school. He goes home at noon for lunch. How far does he walk each day going to and from school?

- 1/2 mi.
- 1 mi.
- 3/4 mi.
- 1 1/2 mi.
DIRECTIONS: Mark the number of the word that means the same or about the same as the first word.

F. blossom 1 tree 2 vine 3 flower 4 garden

71. reply 1 news 2 answer 3 note 4 open

72. amaze 1 agree 2 betray 3 surprise 4 contrary

73. form 1 shape 2 find 3 gathering 4 combat

74. manufacture 1 desire 2 deploy 3 remove 4 construct

75. herd 1 group 2 listen 3 forerunner 4 begin

76. consent 1 occur 2 offer 3 oppose 4 agree

77. level 1 mountain 2 slope 3 carve 4 smooth

78. freshen 1 renew 2 remove 3 consider 4 assign

79. eternal 1 worthy 2 brief 3 endless 4 native

80. imaginary 1 existing 2 trifling 3 unreal 4 substantial

81. noble 1 bad 2 grand 3 peasant 4 average

82. cease 1 consent 2 concert 3 stop 4 strain

83. fugitive 1 fetter 2 accident 3 saddle 4 runaway

84. soothe 1 destroy 2 ease 3 cause 4 recruit

85. envious 1 amiable 2 boisterous 3 jealous 4 enormous

86. lack 1 want 2 use 3 admit 4 apart

87. condemn 1 false 2 alarm 3 oppose 4 blame

88. scene 1 mesh 2 setting 3 look 4 find

89. detect 1 remove 2 discover 3 overtake 4 apply

90. associate 1 mix 2 define 3 interpret 4 stultify

91. adorn 1 decorate 2 destroy 3 promote 4 revere

92. conclusion 1 settlement 2 journey 3 end 4 right

93. distinct 1 success 2 clear 3 interest 4 noticed

94. preclude 1 follow 2 behind 3 compose 4 prevent

95. obscure 1 clear 2 quaint 3 odd 4 hidden
**DIRECTIONS:** Read the following items. Mark the number of each correct answer according to the story.

<table>
<thead>
<tr>
<th>G. The story read to you a while ago was a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ballad.</td>
</tr>
<tr>
<td>2 poem.</td>
</tr>
<tr>
<td>3 realistic story.</td>
</tr>
<tr>
<td>4 fairy tale.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>100. One evening Sigurd heard his cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 lowing in discontent.</td>
</tr>
<tr>
<td>2 running about in fright.</td>
</tr>
<tr>
<td>3 bellowing in fright.</td>
</tr>
<tr>
<td>4 struggling with some wild beast.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>96. Visitors who go near the dark pool see a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 circle of fire.</td>
</tr>
<tr>
<td>2 dark circle.</td>
</tr>
<tr>
<td>3 circle of rocks.</td>
</tr>
<tr>
<td>4 bright green circle.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>97. Sigurd lived</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 near the edge of the dark forest.</td>
</tr>
<tr>
<td>2 near the edge of the village.</td>
</tr>
<tr>
<td>3 in the village.</td>
</tr>
<tr>
<td>4 in the dark forest.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>98. Sigurd's mother and father</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 deserted him when he was a child.</td>
</tr>
<tr>
<td>2 lived nearby in the village.</td>
</tr>
<tr>
<td>3 lived with Sigurd in his cabin.</td>
</tr>
<tr>
<td>4 died when he was very young.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>99. Every day Sigurd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hunted in the forest.</td>
</tr>
<tr>
<td>2 tended his cattle.</td>
</tr>
<tr>
<td>3 worked in the village.</td>
</tr>
<tr>
<td>4 toiled in the fields.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>101. To protect his cows, Sigurd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 picked up his spear.</td>
</tr>
<tr>
<td>2 took up his club.</td>
</tr>
<tr>
<td>3 strapped on his sword.</td>
</tr>
<tr>
<td>4 gathered a handful of rocks.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>102. When Sigurd arrived, the cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 were comforted by his presence.</td>
</tr>
<tr>
<td>2 began running wildly around the pasture.</td>
</tr>
<tr>
<td>3 became wilder than ever.</td>
</tr>
<tr>
<td>4 were already badly wounded by an unknown attacker.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>103. Sigurd found a clearing, deep in the forest, that was</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 black as midnight.</td>
</tr>
<tr>
<td>2 large and dark.</td>
</tr>
<tr>
<td>3 filled with a dim light.</td>
</tr>
<tr>
<td>4 light as day.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>104. As the mermaid sat, she</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 looked at herself in a mirror.</td>
</tr>
<tr>
<td>2 combed her hair.</td>
</tr>
<tr>
<td>3 whistled a tune.</td>
</tr>
<tr>
<td>4 read a book.</td>
</tr>
</tbody>
</table>
The mermaid’s name was
1 Frieda.
2 Gretchen.
3 Frances.
4 Lorelei.

After meeting the mermaid, Sigurd returned to the pool the next
1 four evenings.
2 five evenings.
3 six evenings.
4 seven evenings.

Nixie’s steed was a great
1 eagle.
2 hawk.
3 condor.
4 roc.

Nixie flew to
1 the depths of the dark forest.
2 heaven.
3 the underworld.
4 Mount Olympus, home of the gods.

Nixie asked the goddess to help him
1 destroy the mermaid.
2 destroy Sigurd.
3 capture the mermaid.
4 destroy both Sigurd and the mermaid.

The goddess gave Nixie a
1 bottle of magic liquid.
2 packet of magic powder.
3 packet of magic incense.
4 container of magic oil.

The goddess told Nixie not to use the magic until the mermaid was
1 in the water.
2 asleep.
3 at least partially out of the water.
4 completely out of the water.

The goddess told Nixie that the magic formula would work when the blaze was
1 finally burned out.
2 many-colored.
3 at its peak.
4 the most beautiful.

When the magic worked, the goddess told Nixie, it would carry whoever it surrounded away to
1 the underground.
2 a happier land.
3 heaven.
4 paradise.
115. Nixie prepared the magic formula, following Hela's directions, while the mermaid was
  1 down in the pool.
  2 asleep.
  3 sitting on a rock.
  4 watching for Sigurd.

116. Sigurd threw Nixie
  1 into the flames.
  2 into the pool.
  3 out of the flames.
  4 high into the air.

117. When the flames finally burned out, Sigurd
  1 and the mermaid had vanished.
  2 and the mermaid decided to leave the dark forest.
  3 went home to his cabin.
  4 was left alone.

118. The villagers say that if someone sits by the pool in the evening it is possible to
  1 see the ghosts of Sigurd and the mermaid.
  2 hear the mermaid singing.
  3 see the evil troll.
  4 hear Nixie laughing.

119. The name of the village was
  1 Weissburg.
  2 Donnelburg.
  3 Gotesburg.
  4 Williamsburg.

120. The title of the story read to you a while ago was
  1 "The Tale of a Mermaid."
  2 "The Troll and the Mermaid."
  3 "The Mermaid's Song."
  4 "Sigurd and the Mermaid."
<table>
<thead>
<tr>
<th>Test/Factor</th>
<th>Possible Score</th>
<th>Raw Score</th>
<th>Percentile</th>
<th>ACTUAL G.P.</th>
<th>Grade C.A.</th>
<th>M.A.</th>
<th>I.Q.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opposites</td>
<td>15</td>
<td>15</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>137+</td>
<td></td>
</tr>
<tr>
<td>Similarities</td>
<td>15</td>
<td>15</td>
<td>98</td>
<td>98</td>
<td>98</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td>Analogies</td>
<td>15</td>
<td>10</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>126</td>
<td></td>
</tr>
<tr>
<td>Logical Reasoning</td>
<td>45</td>
<td>25</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Numerical Values</td>
<td>15</td>
<td>10</td>
<td>94</td>
<td>94</td>
<td>94</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Number Problems</td>
<td>25</td>
<td>25</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Verbal Comprehension</td>
<td>25</td>
<td>25</td>
<td>94</td>
<td>94</td>
<td>94</td>
<td>112</td>
<td></td>
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<tr>
<td>Language (Tests 5, 7)</td>
<td>60</td>
<td>60</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>108</td>
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<tr>
<td>Non-Language (Tests 1, 2, 3, 4)</td>
<td>60</td>
<td>60</td>
<td>99</td>
<td>99</td>
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<td>Total</td>
<td>120</td>
<td>120</td>
<td>99</td>
<td>99</td>
<td>99</td>
<td>100</td>
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</tr>
</tbody>
</table>

**Stanine Intelligence Quotient:**

- 137+
- 132
- 126
- 120
- 116
- 112
- 108
- 104
- 100
- 96
- 92
- 88
- 84
- 80
- 76
- 72
- 68
- 64
- 60
- 56
- 52
- 48
- 44
- 40
- 36
- 32
- 28
- 24
- 20
- 16
- 12
- 8
- 4
- 0

**INTELLIGENCE QUOTIENT**
Sequential Tests of Educational Progress

Listening
**General Directions**

This is a test of how well you can understand the kinds of things that are often spoken aloud to you. You should take the test in the same way that you would work on any new and interesting assignment. Here are a few suggestions which will help you to earn your best score.

1. Make sure you understand the test directions before you begin working. You may ask any questions about any part of the directions you do not understand.

2. You will make your best score by answering *every* question because your score is the number of correct answers you mark. If a question seems to be too difficult, make the most careful guess you can, rather than waste time puzzling over it.
SECTION FOR PART ONE

A number of short selections will be read aloud to you. These selections will include such things as stories, directions, poems, explanations, and arguments. After each selection, you will hear a group of questions or incomplete statements. Four suggested answers are given for each question or incomplete statement. You must decide which one of these answers is best.

Remember to listen carefully because each section and each question will be read aloud only once and they are NOT printed in your test booklet. The suggested answers ARE printed in your test booklet so you can look at them while you are choosing your answer.

You must mark all of your answers on the separate answer sheet you have been given; this test booklet should not be marked in any way. Mark your answer sheet by blackening the space having the same letter as the answer you have chosen. For example, suppose the following selection and question were read to you:

Selection

The old man hurried back to his house, and his mind was full of many things. When he suddenly saw a fat, yellow cat sitting in his best armchair, he could only stand there rubbing his eyes and wondering whose house he was in.

Question Number 0

When the old man saw the yellow cat in his best armchair, how did he feel?

Your test booklet would look like this:

0 A Pleased
B Surprised
C Sad
D Angry

Since the old man was surprised to see the cat, you should choose the answer lettered B. On your answer sheet, you would first find the row of spaces numbered the same as the question—in the example above, it is 0. Then you would blacken the space in this row which has the same letter as the answer you have chosen. See how the example has been marked on your answer sheet.

Make your answer marks heavy and black. Mark only one answer for each question. If you change your mind about an answer, be sure to erase the first mark completely.

Do not turn this page until you are told to do so.
PART ONE

1. A only when a real fire breaks out  
   B whenever the fire bell sounds  
   C only when the teacher announces a fire drill  
   D whenever the firemen come

2. E go right home without waiting  
   F go as far from the building as possible  
   G go to the left corner of the playground  
   H go to the far end of the block

3. A save our lives  
   B memorize them  
   C make up others  
   D help the firemen

4. E To have more chance for exercising  
   F To get a better view of the fire  
   G To use their regular play space  
   H To be out of danger

5. A any fire exit  
   B the door on the south  
   C the hallway to the right  
   D the nearest fire exit

6. E take nothing with you  
   F take your lunch with you  
   G take your coat with you  
   H leave your desk neat and clean

7. A the signal is given  
   B the whistle blows  
   C one of the children tells you to return  
   D you think everyone is out of the building

8. E it is easier for all to come in at one time  
   F it might bother the firemen  
   G the building might be on fire  
   H the teacher doesn’t want pupils in the building

9. A a dealer in antiques  
   B a postman  
   C a dealer in stamps  
   D a coin collector

10. E she wanted to find out how much one was worth  
    F her friend had recommended him  
    G she wanted to sell all the stamps to  
    H she wanted him to find one valuable stamp

11. A be polite to the old lady  
    B see which ones he liked  
    C see how much they were worth  
    D see how many there were

12. E $100 for all of them  
    F $100 for one of them  
    G $250 for all of them  
    H $250 for one of them

13. A All of them  
    B Many of them  
    C About half of them  
    D A few of them

14. E after he examined the stamps  
    F after he talked with his partner  
    G after he bargained with the lady  
    H after he waited a week

15. A disappointed by the amount of the check  
    B pleased by the amount of the check  
    C sad about selling the stamps  
    D unwilling to part with the stamps

16. E put them away in a shoe box  
    F take them to a different dealer  
    G bring them to this dealer  
    H show them to her friend

Go on to the next page
A sad feeling  
B A relaxed feeling  
C A proud feeling  
D A feeling of doubt  
E to explain democracy to people in other countries  
F to tell us not to be ashamed of the flag  
G to get more people to salute the flag  
H to remind us of what our flag represents  

A What the stars on our flag represent  
B That children say the pledge to the flag every day  
C What the pledge to the flag really means  
D How new citizens learn the pledge to the flag  
E have risked their lives for our flag  
F remember the thirteen original states  
G stand at attention for the flag  
H put our flag up on holidays  

A the color of the flag  
B the serious promises he makes  
C how the flag is displayed  
D how many people salute the flag  

22 E gold is the best treasure  
F bluebirds have shining feathers  
G small boys treasure many things  
H many lands have riches  

23 A almost anything may be precious  
B things swapped are most treasured  
C only bright things are attractive  
D a hunt for gold is most exciting  

24 E how foolish the child was  
F what adults think valuable  
G that faraway things are better  
H ways to get rich  

25 A telling the things he collects  
B using big words  
C telling how the boy looked  
D laughing at what he collects  

26 E in a box or bag  
F in a cup or carton  
G in his hand or pocket  
H in his lunch pail or basket  

Go on to the next page.
27  A  "What Happens to Old Ships?"
    B  "A Famous Old Barn"
    C  "A Ship and a Barn"
    D  "What Became of the Mayflower?"

28  E  Plymouth Rock is in England.
    F  The ship was built there.
    G  Mayflowers grow in England.
    H  A farmer from Buckinghamshire bought the wood.

29  A  The way the facts fit together
    B  The barn that is still standing
    C  The information from detectives
    D  The dates given

30  E  talking about the Pilgrims
    F  giving you several facts
    G  describing the barn
    H  telling you he believes it

31  A  put several clues together
    B  ask questions
    C  read old tax reports
    D  show confidence in one’s beliefs

32  E  baking it in an oven
    F  polishing it with steel wool
    G  scrubbing it with paint cleaner
    H  drying it two days

33  A  it is a bright color
    B  it fits into most color schemes
    C  it is cheaper than other paints
    D  it is easier to use

34  E  from upholstery or wallpaper
    F  from a painting book
    G  from other trays
    H  from magazine covers

35  A  they are long and detailed
    B  the trays will be pretty
    C  the words are easy
    D  they give the steps in order

36  E  To enjoy the painting
    F  To make inexpensive gifts
    G  To practice making designs
    H  For all of these reasons
A noticed the poison ivy growing there
B found hoof prints at the stream crossing
C watched the birds fly past
D found broken sticks at the stream crossing
E is not far from the main road
F seems depressing to people
G is along a well-beaten path
H probably has few human visitors
A sees a great deal when he goes into the woods
B has difficulty in describing what he sees
C does not often get to the woods
D lives in a log cabin
E His regret about the poison ivy
F His curiosity about the woods
G His hope that he will see the deer
H His enjoyment of a beautiful place

End of Part One

DIRECTIONS FOR PART TWO

Part Two contains the same kind of material as Part One. Mark your answers in the same way.
PART TWO

1 A a baking pan
   B an electric toaster
   C an oven
   D a frying pan

2 E an egg mixture
   F honey, syrup, or marmalade
   G red raspberry jam
   H bacon and eggs

3 A how many it will serve
   B how many eggs to use
   C the length of time for browning the bread
   D how much sugar to use

4 E it is a different kind of toast
   F it is a familiar kind of toast
   G it is made from brown bread
   H it can be made ahead of time

5 A milk to use
   B orange rind to use
   C bread to use
   D butter or margarine to use

6 E don’t have enough time to make regular toast
   F want a change from regular toast
   G are getting your own breakfast
   H have lots of orange juice on hand

7 A “Several Varieties of Toast”
   B “French Toast”
   C “A Good Breakfast”
   D “Orange Toast”

8 E The comfort of the chair
   F The fever from measles
   G The pictures on the walls
   H The dust in the sun’s rays

9 A an elf dancing
   B a fairy castle
   C a tiny fairy
   D a tin soldier

10 E danced gaily
    F kept still
    G changed size
    H fell down

11 A Another took its place.
    B He didn’t like it.
    C He liked dancers best.
    D He wanted to look outdoors.

12 E His mother called him.
    F He went back to bed.
    G The sun went down.
    H He got tired of playing.

13 A stars
    B candles
    C fireflies
    D flames

14 E have been very sick
    F be a very lonely child
    G have a good imagination
    H have had the measles

15 A traveled a lot
    B had nightmares
    C been very sick
    D read many books
A tell her dad how much things cost
B ask her parents to let her go to work
C tell about her friends’ allowances
D get more spending money
E no good reasons
F no reasons at all
G reasons that seemed good to her
H reasons that were well organized

A “Sue gets twice as much.”
B “I’m the only one who has so little money.”
C “I’m asking just one simple favor.”
D “I’ll promise to save all I can.”
E Yes, and she went at it in the right way.
F Yes, but she should have let them say something.
G No, but she gave a good speech just the same.
H No, but she had to express her feelings to someone.

21 A “The Log Jam”
B “The Hungry Boy”
C “A Narrow Escape”
D “Catching Cold”

22 E completely covered with logs
F almost covered with logs
G calm water
H jammed with ice

23 A a long pole
B a flashlight
C a loop of wire
D a coil of rope

24 E hurt herself
F had a chill
G recovered from worry
H been very angry

25 A tying the logs together
B keeping the logs the way they were
C separating the logs
D knocking the logs down

26 E what Mikael was going to do when he reached home
F what Mikael’s father said to him about his disobedience
G what caused the accident
H how his mother felt

Go on to the next page.
27 A show that she could
B get even with Sally
C be at the top of her class
D try to improve her grade

28 E Sally’s paper was easy to see.
F The teacher had left the room.
G Sally offered her the answer.
H She could peek at her book.

29 A Her dislike of cheating
B Her fear of being found out
C Her understanding of her father’s feelings
D Her desire to make good grades

30 E Proud of herself
F Ashamed of herself
G Afraid of the teacher
H Nervous and uneasy

31 A When you heard the last sentence
B When Nan thought of cheating
C When Nan picked up her pen
D When the bell rang

32 E Yes, because how else could we have gotten the story.
F Yes, because children are often tempted to cheat in school.
G No, because it was in a story.
H No, because no child would act as Nan did.

33 A You should study hard for tests.
B Good grades are more important than honesty.
C Cheating is wrong if you get caught.
D You feel good when you decide to do right.

34 E it was Safety Week
F children had been hurt in accidents
G equipment had been damaged
H pupil helpers were to be trained

35 A That the children were not having there
B That things were all mixed up on the playground
C That the school owned too much playground equipment
D That the children were probably getting enough exercise

36 E show directions
F separate boys and girls
G show where to play each game
H show where to park bicycles

37 A the requests of the principal
B his own opinion
C the request of parents
D the decision of the council

38 E was a poor one
F was worth trying
G should be voted on
H needed more explanation

39 A Yes, because he made the plan sound as if it would work
B Yes, because he gave a nice long speech about what happened
C No, because he made the problem seem much worse than it is
D No, because he made fun of the graders

40 E Look out for smaller children.
F Check out any equipment.
G Bring play equipment from home.
H Suggest any new ideas.

End of Test