

Concordia Seminary - Saint Louis

Scholarly Resources from Concordia Seminary

Bachelor of Divinity

Concordia Seminary Scholarship

6-1-1951

An Analysis of the Extent of Growth in Doctrinal Knowledge of St Louis Children in the Nine Months After Confirmation

Donald William Backus

Concordia Seminary, St. Louis, ir_backusw@csl.edu

Follow this and additional works at: <https://scholar.csl.edu/bdiv>



Part of the [Practical Theology Commons](#)

Recommended Citation

Backus, Donald William, "An Analysis of the Extent of Growth in Doctrinal Knowledge of St Louis Children in the Nine Months After Confirmation" (1951). *Bachelor of Divinity*. 347.

<https://scholar.csl.edu/bdiv/347>

This Thesis is brought to you for free and open access by the Concordia Seminary Scholarship at Scholarly Resources from Concordia Seminary. It has been accepted for inclusion in Bachelor of Divinity by an authorized administrator of Scholarly Resources from Concordia Seminary. For more information, please contact seitzw@csl.edu.

AN ANALYSIS OF THE DEGREE OF GROWTH IN
DOCTRINAL KNOWLEDGE OF ST. LOUIS
CHILDREN IN THE FIVE MONTHS
AFTER CONFIRMATION

A Thesis Presented to the Faculty
of Concordia Seminary, St. Louis,
Department of Practical Theology
in partial fulfillment of the
requirements for the degree of
Bachelor of Divinity

by

Donald William Boelus

June 1951

Approved by:

Arthur C. Stepp
Member

Otto E. John
Rector

TABLE OF CONTENTS

| Chapter | Page |
|--|------|
| I. THE PROBLEM AND SCOPE OF THE STUDY | 1 |
| II. CONSTRUCTING THE INSTRUMENT | 4 |
| III. DESCRIPTION OF THE FIRST SAMPLE | 20 |
| IV. PERFORMANCE IN THE FIRST SAMPLING | 27 |
| V. DESCRIPTION OF THE SECOND SAMPLE | 43 |
| VI. RESULTS INDICATED IN THE SECOND SAMPLING | 48 |
| VII. SUMMARY AND CONCLUSIONS | 57 |
| APPENDIX | 65 |
| BIBLIOGRAPHY | 112 |

CHAPTER I

THE PROBLEM AND SCOPE OF THE STUDY

Most children are received into full communicant membership in the Lutheran Church-Missouri Synod at the age of thirteen or fourteen years. The rite of confirmation, which marks the beginning of communicant membership in the church, is ordinarily the climax of one or two years of special instruction in the teachings of the Lutheran Church. Unfortunately, the period between confirmation and adulthood, which coincides roughly with the period of adolescence, is the time at which church members are most apt to drift away from active membership. Almost everywhere the church of today asks, "What is happening to our youth?" Confirmation, meant to mark the beginning of the fullest fellowship in the Body of Christ, marks the end of their association with any religious organization for many young people.

There are several explanations commonly advanced for the defection of so many of the church's youth. Undoubtedly, the general stress of the adolescent years, with their well-known problems, is a contributing factor. The widening circle of social relationships normal in this period may well reduce the extent of the child's reliance for social satisfaction upon his friends at church. But this and other problems of adolescence should increase rather than decrease the child's sense of need for God which only the Gospel can supply.

Perhaps the abrupt cessation of formal religious training which usually coincides with the end of confirmation instruction contributes a share of the cause for the problem. It may be that confirmation, with

its ceremony and its air of finality, coinciding as it often does with graduation from the eighth grade, creates an illusion of "graduation" from religious training. From the unconsciously transmitted attitude of parents, teachers, pastors, and classmates, the child may conclude that confirmation is the final goal of religious life until he attains heaven, that religion is "grade school stuff" anyway, and that he has insured his religious future against all mishap by learning his confirmation lessons well.

If existing parish education programs are inadequate to meet the needs of youth, they too may contribute toward the young person's assumption that he has learned all there is to learn. In many parishes, a short Bible class on Sunday morning may be the only agency for post-confirmation religious training, especially if the Sunday sermon is not educationally valuable. Most young peoples' societies have attempted to provide some training in Christian knowledge for their members, but often the discussion method is not supplemented by study of Scriptures or other books and thus may sacrifice growth in knowledge and understanding for the sake of interest gained by use of free discussion.

If Lutheran parishes are not providing their youth with an adequate program of training in Christian doctrine, Lutherans must expect defection from the church among their young people. For training in doctrine is supplying the Means of Grace to people. Lutherans can anticipate growth, development, and loyalty among their youth only as the Means of Grace are made available for them. It is possible that the parishes of the Missouri Synod are not meeting this need of their young people to grow in knowledge.

In an effort to determine a partial answer to the question whether or not children grow in doctrinal knowledge and understanding during the post-confirmation period, the following study was made among St. Louis children over the period of nine months after confirmation. Inasmuch, as the study confines itself to children in St. Louis, to a specific type of material, generalizations should be made cautiously. It would not necessarily be valid, for example, without careful comparison of all the variables, to conclude that children in a small rural parish in Texas would show the same rate or direction of growth that St. Louis children showed.

The study was conducted by use of a test specifically constructed for this purpose and administered to a group of children at the time of their confirmation, Pentecost, 1950.

The same test was repeated to as many of the same children as could be reached in March, 1951. Some, of course, were lost in the sampling because of infrequent attendance at Bible classes. Changes in the character of the sample caused by their loss were noted. The two scores of each child were then compared, and the differences were evaluated. These differences provided a picture of the over-all gain or loss in doctrinal knowledge among the children in the group during the nine months after confirmation.

A Short Test of the Bible Knowledge of St. Louis Children: A Study of Doctrinal Knowledge (St. Louis: Catholic Publishing House, 1951).

1951, pp. 11-12.

CHAPTER II

CONSTRUCTING THE INSTRUMENT

Source of Material

Since the study was to be conducted by means of a test, an instrument had to be constructed to sample material which all children confirmed in the Lutheran Church-Missouri Synod had been taught. Instruction for confirmation in the Missouri Synod is nearly always based directly on the Small Catechism of Dr. Martin Luther and the explanation of the text of the Catechism published by the Lutheran Church-Missouri Synod.¹ Therefore the Small Catechism together with the Short Explanation was selected as a source for the material used in the test. In the actual construction of questions, this material was utilized as directly as possible without sacrificing the testing of understanding for testing of rote memory.

Since the test was first administered just before Pentecost, 1950, the date of confirmation in many parishes, no material ordinarily taught at the end of the course was included. This was done to make as certain as possible that all classes had been taught the material tested. Thus material from Part V, "The Office of the Keys and Confession"², and

¹A Short Explanation of Dr. Martin Luther's Small Catechism. A Handbook of Christian Doctrine (St. Louis: Concordia Publishing House, 1943).

²Ibid., pp. 181-92.

Part VI, "The Sacrament of the Altar"³, was not included in the test. All questions were selected from material included in Parts I - IV on "The Ten Commandments", "The Creed", "The Lord's Prayer", and "The Sacrament of Holy Baptism".⁴

It may be argued that from both the theological and the educational standpoint the Short Explanation of the Catechism is not an adequate basis for evaluating Christian knowledge. From the viewpoint of the theologian, there is much to learn which is not included in the Small Catechism or the Explanation. Techniques of exegesis or Bible interpretation and practical habits and skills in the Christian life of witness are only treated indirectly. The whole field of Bible History is included only in notes and Bible references. Finally, the Short Explanation of the Catechism is not meant to be the last word as a statement of doctrine, since it does not occupy the position of a confession of the Lutheran Church. Hence individual teachers may differ slightly in their teaching of the areas utilized in the test.

From the viewpoint of the educator, it may be argued that the Short Explanation of the Catechism is not an effective tool for educating and therefore cannot provide an adequate basis for a test of doctrinal knowledge. Many of the questions and answers are too condensed to be meaningful to children⁵, and will serve more as a guide or out-

³Ibid., pp. 193-206.

⁴Ibid., pp. 39-180.

⁵e.g. "Wherein did Christ's State of Humiliation consist? Answer: Christ's State of Humiliation consisted in this, that according to His human nature, Christ did not always and not fully use the divine attributes communicated to His human nature." Ibid., p. 109.

line for the teacher than as a source of clearly understood ideas for the pupils. Furthermore, the material itself has been organized with little regard for modern methods of presentation to children. There are no specific units of material, constructed with definite aims and useful approaches, and there is little attempt to gain the interest of the pupil. Therefore the pupil will have leaned heavily upon his teacher rather than on the book as the actual source of material for learning. If the teacher has departed radically from the content and manner of presentation of the text, the pupil might be placed at a disadvantage in attempting to respond to the questions asked.

Probably the most serious objection to the use of the Short Explanation of the Catechism as a basis for testing growth in doctrinal knowledge is that it is not ordinarily used after confirmation. The educational agencies of the parishes of the Missouri Synod which reach the child in his post-confirmation years rarely utilize the Catechism or the Short Explanation as text or reference. Bible classes attempt to lead the student directly into the pages of the Scriptures; preachers need not often resort to Catechism terminology or Catechism organization in their construction of sermons; the program of training in young people's societies is usually organized around the problem-topic method and rarely if ever relies on the Catechism or the Explanation directly. Consequently any test which relied too heavily on terms or presentations peculiar to the Catechism and its Explanation might be testing only the child's ability to recall his confirmation training and ignore the subsequent growth it claimed to test.

However, the choice of a basis for a test of this type is seriously limited. As unsatisfactory as it may be, the synodical explanation

of the Catechism is the only text book in virtually universal use in the confirmation training programs of Missouri Synod parishes. Thus any attempt to test Bible interpretation, skills in Christian witness, knowledge of Bible stories, or any area of Christian growth not treated in the Short Explanation could well have been testing many children on material they had never learned. Even if, theologically and educationally, the Small Catechism and its Explanation were not all that was to be desired as a text for religious instruction, the fact was that there was nothing else in virtually universal use. Moreover, even if growth after confirmation was based on other types of study, the net result of a synthesis of all religious instruction should also have been growth in understanding of these Six Chief Articles of Lutheran doctrine. Hence, although the Catechism and its terminology may no longer have been used after confirmation, the child who has had an adequate post-confirmation doctrinal education should have grown in understanding and knowledge of the content of the Catechism.

Finally, although the emphases of teachers might vary slightly, differences in teaching of the Catechism probably occurred far less often than might be expected. This is traceable to two causes. First, the Missouri Synod's strong accent upon doctrinal unity has traditionally emphasized complete agreement in doctrine among all its official teachers as one of its primary objectives as a synod. Moreover, virtually all of the pastors and teachers in the Missouri Synod are products of a centralized educational system which trains many of them from elementary school through seminary and normal school and practically guarantees that they will finish their education in one of the synod's two normal schools or in one of its two seminaries. This emphasis on doc-

PRITZLAFF MEMORIAL LIBRARY

CONCORDIA SEMINARY

ST. LOUIS, MO.

trine and the centralized training program tend strongly to produce homogeneity in doctrine and interpretation and even, to a large extent, in teaching methods.

For these reasons, the Small Catechism of Luther and the Short Explanation were selected as the only practicable basis for the test.

Selecting the Items

One-hundred-twenty-two items for the test were next constructed. The form selected was three-choice, one-response, multiple-choice statements throughout for greatest simplicity in administration, since the test was to be given by teachers, pastors, and in a few cases laymen. An effort was made to sample not only memory of significant facts, but also understanding. Every item was carefully selected as pertinent to a correct grasp of the doctrines of the Lutheran Church. A few of these items were eliminated in consultation with advisors and a preliminary test containing 117 items was then constructed.

Forty students of theology, comprising the class in religious education at Concordia Theological Seminary, St. Louis, offered their criticisms of the items and attempted to answer the questions. These students were at a level equivalent to the fourth year of college.

The actual scores of the seminary group may be dealt with briefly, since their responses to the items were often sporadic, some having neglected to answer any items they criticized. A few questions did, however, prove difficult even for this group. Most of these were eliminated as defective in construction, but two were kept on the

assumption that those who missed them were actually misinformed. The central tendency for this group was naturally spuriously high. Their mean score was 109.25 and their median was 110.4.⁶ There was only one perfect score and only one score below 97. Range, 95-117. The mean number of errors per question was 2.63.

The criticism of the students were useful. The seminarians were asked to examine each question both for its theological value and for its worth as a question. Widely divergent viewpoints were represented, some of which neglected to take into account the basis of the test, while others failed to keep its purpose in mind. Many of the criticisms were not specific enough to be useful: e.g. "Too vague"; "This question is ambiguous." Only twenty-seven questions were not criticized at all. The mean number of students criticizing each question was three. The highest number of students agreeing that a single question was bad was eighteen⁷; next highest, sixteen⁸; next highest, thirteen.⁹ Below these were a few definitely concentrated areas of criticism.¹⁰

The test was administered to three control groups of children in order to discover faulty questions, as well as to determine its value as a measure of differences in the educational levels of children.

⁶Appendix G, Frequency Distribution I, II-Year Class in Religious Education, Concordia Seminary, St. Louis, Missouri.

⁷Cf. Appendix A, Test I, Question 31.

⁸Ibid., Question 36.

⁹Ibid., Question 49.

¹⁰Ibid., Questions 37, 40, 48, 54, 66, 78, 79, 106, and 118 with 8, 11, 8, 9, 8, 11, 9, 8, and 8 criticisms respectively.

The control groups were grades six, seven, and eight at Concordia Lutheran Elementary School, Maplewood, Missouri. Twenty-one sixth-graders, fifteen seventh-graders, and twenty-three eighth-graders participated. These parochial school children were not a normal group since they studied the subject daily while non-parochial-school children meet at best twice or three times per week for religious instruction. Consequently they could be expected to score better than average. It was felt, however, that the two lower grades would provide an approximate representation of sample groups not trained in the parochial school and would score at least as low or lower than eighth-graders not attending parochial schools. The tests were administered by the regular grade teachers.

Responses indicated a measurement of difference between the Concordia religion classes.¹¹ Grades six and seven comprised the same religion class and their mean scores were respectively 82.00 and 82.78. The mean score for grade eight was 92.83. The difference between means for grade eight and grade seven was sufficient to indicate that the test did actually measure differences, for this difference of ten points proved to be significant at a level far above 0.1 percent.¹² This means that if the true difference were zero, in a normal distribution of the differences between the means of a large number of small random samples like these, a difference as large as the one here obtained would be

¹¹cf. Appendix C, Frequency Distribution II, Grades Six, Seven, and Eight, Concordia Lutheran School, Maplewood, Missouri.

¹²cf. Appendix D, Formula I, Formula for Significance of the Difference Between Grades VII and VIII, Concordia Lutheran School, Maplewood, Missouri.

exceeded by accident due to errors in sampling in far less than 0.1 percent of such studies.¹³

Medians for grades six, seven, and eight were 83.2, 82.6, and 93.6 respectively. Grade six had a range 58-94; grade seven, range 46-103; grade eight, range 49-112. These ranges helped to corroborate the belief that the test actually did measure the differences in doctrinal knowledge between children, although this was by no means conclusive evidence. It was possible, for example, to conclude on the basis of this evidence that the test measured only differences due to other causes, as for example mental age. But if this was the case, the similarity between the means for grades six and seven would still have had to be explained. A definite difference in mental age should exist between these two groups also.

The number of children of the Maplewood group missing each question was tallied and a record was kept of the response given in case a question was missed by any eighth-grader. Both these procedures helped to discover misleading or ambiguous questions. The mean number of children missing each question was 16.2 for the total group; for grade six, 6.7; for grade seven, 4.4; for grade eight, five.

After all possible data were collected, it was necessary to set up certain rather arbitrary standards for discarding items in the test on the basis of the data furnished by the seminarians and the Maplewood group. First the following preliminary test was applied to each item:

¹³M. F. Lindquist, A First Course in Statistics (Boston: Houghton Mifflin Co., 1942), pp. 132-33.

1. Was it missed by more than the mean number of seminarians missing each question (three) ?
2. Was it criticized by more than the mean number of seminarians criticizing each question (sixteen) ?
3. Was it missed by more than the mean number of Maplewood pupils missing each question (sixteen) ?

If two or more of the foregoing questions could be answered in the affirmative for a specific item, it was carefully examined in the light of the following criteria:

1. Did the seminarians miss the item because
 - a) they didn't know the correct response?
 - b) they viewed it from a deepened, richer, more critical theological background than children could be expected to display?
 - c) the item was misleading, ambiguous, or defective?
2. Did the criticism of the seminarians
 - a) indicate an incorrect grasp of the purpose or basis of the test?
 - b) indicate that the item was evidently faulty?
3. Did the Maplewood children miss the item because
 - a) it was difficult and they didn't know the answer?
 - b) it was misleading, ambiguous, or defective?

Two or more of the first set of criteria coincided in thirty-five items and all three coincided in fourteen items. Thus thirty-five items were examined carefully. In addition, items not missed at all were examined to determine whether they were defective or too obvious, or whether they indicated the correct answer by their construction. In this way the data obtained from these two groups were utilized but were never accepted as absolutely determining. Obviously, the final criterion for deciding whether or not to use each item was judgment.

Finally, ten items were eliminated as defective. Question twenty-seven was discarded:

The purpose of the Bible is

- a) to make us Christians
- b) to teach us that there is a God
- c) to tell us we ought to be good.

Five seminarians criticized it, eighteen eighth-graders missed it, fifteen having answered "c". It was thought that the correct answer, "a", might be misleading since the Bible makes people Christians only indirectly by channeling the Holy Spirit into human hearts.

Question thirty-one was eliminated:

If you steal something you

- a) must repent, and God will forgive you whether you return it or not
- b) you should destroy it to avoid embarrassment
- c) you must return it if at all possible.

Eighteen seminarians criticized it on grounds that no answer was completely correct. The intended correct response, "c", should have included repentance.

Question thirty-six also lacked a definitely correct answer:

When we rise from the dead our bodies will be

- a) not the ones we have now, but will look the same
- b) the same ones we have now
- c) completely different bodies.

Sixteen seminarians criticized this question, fifteen missed it, and fourteen eighth-graders missed it. This was a question for which the theologian would find difficulty supplying an answer from the choices given because none of the choices accurately identifies the glorified body.

Question forty-seven required historical and extra-Biblical knowledge:

The Apostles' Creed was written by

- a) the twelve apostles
- b) some Christians whose names we do not know
- c) Peter, Paul, and James.

Although the item itself was hardly defective, it was rejected because it tested knowledge hardly pertinent to a correct understanding of doctrine.

The element of time rendered question fifty-four ambiguous:

God created

- a) good angels
- b) both good angels and devils
- c) neither angels nor devils, only people.

If one is thinking of the moment of creation, "a" would be the correct response. If one assumes the present to be the setting of the statement, "b" would satisfactorily complete the statement.

There were two correct responses for question seventy-four:

Cursing means

- a) saying filthy words
- b) wishing that God would punish someone
- c) taking God's name in vain.

The best response was "b" in the sense that "b" was the most accurate definition, but "c" might also have been construed as correct. Most of the eighth-graders selected "c", the response chosen by twenty of the seminarians.

Although only five eighth-graders missed question seventy-eight, it was heavily criticized:

If you don't envy the prosperity of others

- a) you're too lazy to work
- b) you're helping to keep the seventh commandment
- c) you'll never get anywhere yourself.

This item was rejected, although the correct response was obvious, on the ground that the correct response, "b", was not aptly phrased.

Question eighty-eight was deleted on the basis of the seminarians' criticisms:

- Tattletales break the
- a) second commandment
 - b) no commandment
 - c) eighth commandment.

The seminarians thought the word "tattletales" might be construed as a derogatory term sometimes applied by children to legitimate revealing of information to teachers or parents. This was corroborated by the fact that ten of the Maplewood eighth-graders offered "b" as their choice, although the correct response was "c".

Nineteen seminarians missed question 104, and eight criticized it:

Christians

- a) can keep only a part of the Law
- b) can't keep God's Law at all
- c) can keep only the first three commandments.

This item was rejected because the words "keep God's Law" might have been construed to mean perfect obedience. In this sense "b" would have been the correct response. Actually Christians can obey God to an extent, and therefore "a" was the desired response.

Disagreement among New Testament exegetes made it necessary to reject question 117:

When Jesus says in the Sermon on the Mount, "Blessed are the meek," He's teaching

- a) Law
- b) Gospel
- c) Law and Gospel.

To the unbeliever these words perform the function of Law and to the Christian who believes their promise of blessedness they perform the function of Gospel.

The few items retained in spite of the heavy weight of data to the contrary may require some comment. Question twenty-six was missed by twenty-three seminarians:

When Christ says, "I am with you always," He means He's with us according to

- a) both His human and divine natures
- b) His divine nature only
- c) His spirit but not His body.

The correct answer, "a", represents the position of the Lutheran Confessions which state that He (Christ) is "everywhere present, not only as God, but also as man . . ." ¹⁴ Only five seminarians criticized the question, which indicated that at least eighteen who missed it thought the item clear. Thus the question was retained as difficult but clear.

Although eleven seminarians criticized question thirty-nine, it was retained:

You are saved by

- a) what you do; it's not what you believe that counts
- b) the church you belong to; it's not what you do that counts
- c) what you believe; it's not what you do that counts.

The seminary students were afraid that the question, with its correct response "c", would give the impression that the moral life doesn't matter. The question, however, asked specifically for the instrument of salvation; and the correct Lutheran answer is traditionally, "faith, not works".

The final step in selecting questions for the measuring instrument to be used was to choose one-hundred items of the 107 not rejected as faulty or useless. This was done by arranging a distribution of the frequency with which questions were missed by the Maplewood group ¹⁵ This distribution indicated roughly the levels of difficulty of the items

¹⁴Triglot Concordia, "The Formula of Concord. Thorough Declaration", VIII, 1025, par. 27.

¹⁵cf. Graph I, p. 18.

in the test. For example, eighteen questions were missed by three to five children. Seven items were discarded out of the intervals which had greatest frequency, thus removing some of the excess questions at given levels of difficulty. This left the resulting distribution of levels of difficulty as graduated as possible.¹⁶ The distribution showed that we might assume that one-fourth of the questions were very easy, since they were each missed by fewer than $8\frac{1}{2}$ percent of the children. One-half of the questions may still be classified as easy, since each was missed by fewer than twenty-two percent of the children. Three-fourths of the questions were each missed by fewer than forty percent of the children, while nine-tenths of the questions were each missed by fewer than forty-six percent of the children. Ninety-nine percent of the questions were each missed by fewer than eighty-three percent of the pupils. Reciprocally, this means that one percent of the questions were each missed by more than eighty-three percent of the pupils, ten percent were each missed by more than forty-six percent of the pupils, twenty-five percent were each missed by more than forty percent of the children, etc.¹⁷

The resulting measuring instrument, therefore, consisted of 100 three-choice, one response, multiple-choice questions, carefully selected and representing various graduated levels of difficulty.¹⁸

¹⁶Cf. Graph II, p. 19.

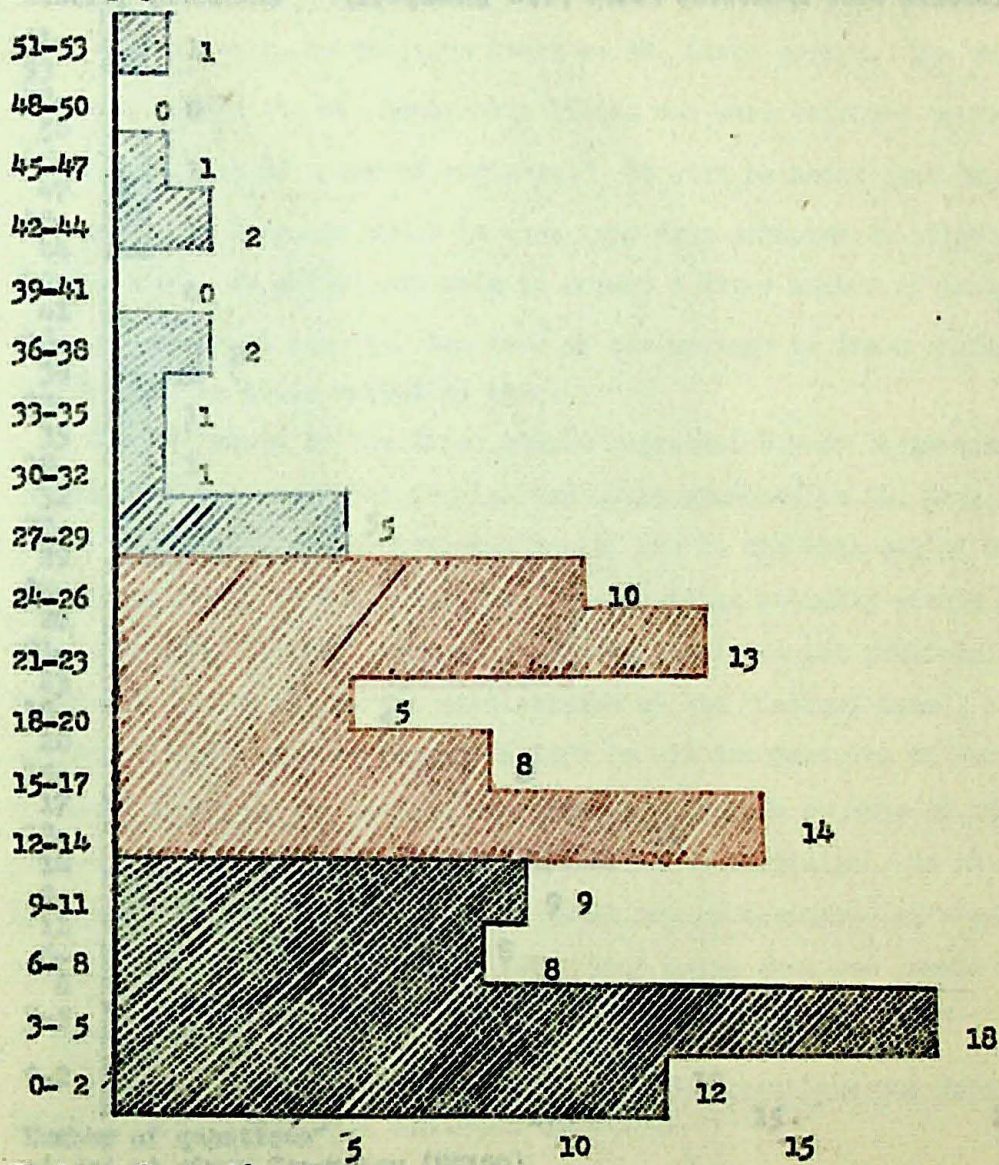
¹⁷Appendix C, Frequency Distribution III, Level of Difficulty of Questions for Final Test.

¹⁸Cf. Appendix B, The Final Measuring Instrument.

GRAPH I

PRELIMINARY DISTRIBUTION SHOWING LEVEL OF DIFFICULEY OF
 QUESTIONS BEFORE PARING DISTRIBUTION FOR FINAL TEST

Number of children
 missing questions



Number of questions
 missed at given
 frequency (N = 110)



= Difficult



= Medium Difficult



= Easy

CHAPTER III

DESCRIPTION OF THE FIRST SAMPLE

Twenty-four parishes in the St. Louis area cooperated in administering the test to their confirmation classes in the first sampling about Pentecost, 1950. Four of these parishes were technically outside the city of St. Louis, in the area known as St. Louis County. The remainder were within the St. Louis city limits and were selected to represent a cross section of types of parishes.¹ It will be noted that the parishes range from large to small in size, and from suburban to blighted areas in location. An effort was made to select a large number of parishes without parochial schools, but some of the pastors in these parishes did not return the tests mailed to them.

The 250 cases in the first sample represent a very large proportion of the children confirmed in Missouri Synod churches in St. Louis in 1950. Since four of the parishes tested are in the area called St. Louis County, only 214 of the cases were from parishes actually within the St. Louis city limits. According to statistics not yet published but furnished on request by the statistician of the Missouri Synod, a total of 343 children were confirmed in 1950 in all the parishes of the Missouri Synod in St. Louis. This does not include reports of four parishes not yet submitted to the synodical statistician. On the basis of former years' statistics, their total may be estimated at forty, bringing the St. Louis total to 383. This means that our sample in-

¹Table 1. Statistics Showing Sizes of Congregations and Parochial Schools Participating in the First Sampling, p. 21.

TABLE 1

STATISTICS SHOWING SIZES OF CONGREGATIONS AND PAROCHIAL SCHOOLS
PARTICIPATING IN THE FIRST SAMPLING*

| Parish | City or County | Members | | Parochial School | Sunday School |
|--------|----------------------|-------------------------|--------------|---------------------|------------------|
| | | Baptized | Communicants | | |
| 1. | County | 534 | 316 | | 187 |
| 2. | City | 830 | 698 | 101 | 204 |
| 3. | County | 645 | 505 | | 113 |
| 4. | County | 422 | 261 | 45 | 113 |
| 5. | City | 1554 | 1070 | 204 | 371 |
| 6. | City | 220 | 130 | | 245 |
| 7. | City | 519 | 348 | | 125 |
| 8. | City | 995 | 725 | 117 | 219 |
| 9. | City | 1687 | 1160 | 172 | 421 |
| 10. | City | 342 | 264 | | 114 |
| 11. | County | 1123 | 651 | 146 | 289 |
| 12. | City | no statistics available | | | |
| 13. | City | 2600 | 1930 | 356 | 440 |
| 14. | City | 1956 | 1522 | 198 | 544 |
| 15. | City | 712 | 517 | 88 | 138 |
| 16. | City | 1100 | 915 | 91 | 220 |
| 17. | City | 1000 | 763 | 111 | 213 |
| 18. | City | no statistics available | | | |
| 19. | City | no statistics available | | | |
| 20. | | no statistics available | | | |
| 21. | City | 950 | 654 | 102 | 249 |
| 22. | City | 1104 | 828 | 78 | 282 |
| 23. | City | 500 | 300 | 65 | 138 |
| 24. | City | 2650 | 1600 | 246 | 518 |

*Armin Schroeder, Statistical Yearbook of The Lutheran Church-Missouri Synod for the Year 1949 (St. Louis: Concordia Publishing House, 1950), pp. 136 ff.

cluded over half, probably about fifty-six percent of all the cases in the population sampled, plus thirty-six cases in the county parishes tested. Such a large percentage of the population does not, in itself, certify the reliability of the results, but it should indicate the heavy weight of the evidence.

The sample was nearly equally divided between boys and girls, with 122 boys and 128 girls. The majority of the children (161) were thirteen years of age. Seventy-three were fourteen. A few other ages were represented by a small number of cases.² Most of the children (231) were completing the eighth grade in school. For a complete age-grade-score distribution, see Frequency Distribution IV.³

The educational background of the sample was determined by the use of a questionnaire attached to page one of the measuring instrument.⁴ The four principal educational variables accounted for were type of schooling (parochial or other), regularity of church attendance, regularity of Sunday school attendance, and length of time spent in confirmation instruction.

²Cf. Table 2, Age and Grade Distribution of First Sample, p. 23.

³Cf. Appendix G, Frequency Distribution IV, Scores in First Sampling Distributed by Grade-Level and Age-Level.

⁴Cf. Appendix B, Test on the Catechism.

TABLE 2

Age and Grade Distribution of First Sample

| <u>Age</u> | <u>Number of children</u> | <u>Grade</u> | <u>Number of children</u> |
|------------|---------------------------|--------------|---------------------------|
| 16 | 3 | 9 | 2 |
| 15 | 7 | 8 | 231 |
| 14 | 73 | 7 | 13 |
| 13 | 161 | Unknown | <u>4</u> |
| 12 | 4 | | <u>250</u> |
| Unknown | <u>2</u> | Total | |
| Total | 250 | | |

Two-hundred-sixteen children were attending parochial schools at the time they took the test, and ten had attended parochial schools at some time in their lives. This means, of course, that the sample was weighted heavily with children who had more than the average amount of religious instruction. Yet it does not mean that those who were attending parochial schools at the time they took the test had eight years of parochial school training. It merely means that they were attending parochial schools when they took the test. Twenty-four of the children had never attended a parochial school.

To determine regularity in church attendance, the children were asked to tell whether they attended church services every Sunday, often, or not often. Each child's response was probably conditioned by his interpretation of the categories, but it can be assumed that the responses provided adequate indication of regularity or irregularity. One-hundred-eighty-eight said they attended church services every Sunday, fifty-four said they went often, and seven admitted that they did not attend services often.

Sunday school attendance was determined in a similar manner. One-hundred-eighty-five children said they attended Sunday school every

Sunday; forty-five said they attended often; and nineteen said they did not attend often.

One-hundred-twelve of the children had attended confirmation classes for two years prior to confirmation; 128 had attended classes for only one year; and eight had less than one year's instruction. The reason for the large number attending confirmation instruction classes for only one year is that many parochial school children are partially prepared for confirmation by means of instruction which is part of the regular school curriculum. They may attend confirmation classes taught by their pastors for only one year.

The religious character of home backgrounds was probed to some extent in four areas: parents' church attendance habits, parents' religious affiliation (whether Lutheran or non-Lutheran), habits of family worship, and parents' marital status (whether or not the child was living with both parents).

The parents were not nearly so regular in church attendance as their children. Only 130 said both their parents attended church services every Sunday, only sixty-six said both their parents attended church often, and fifty-three said neither of their parents attended church services often.

Most of the children came from Lutheran homes. One-hundred-seventy-two said both their parents attended Lutheran churches. Fifty-four said only one parent attended a Lutheran church. Only twenty-four said that neither of their parents were Lutheran.

The most evenly divided of the variables considered was the home devotion factor. One-hundred-fifteen of the children said they had

devotions or Bible study in their families. More, 134, said they did not.

Two-hundred-twenty said they lived with both parents. Thirty said they lived with only one of their parents.

The question will arise whether or not the sample may be considered random. This is doubtful, since it is so heavily weighted with parochial school children. Yet it can be ascertained that the total population would also be very heavily weighted with parochial school children. If a total of 383 children were confirmed in the Missouri Synod churches of St. Louis in 1950, well over half of them were parochial school children. Even the sample, which contained 195 parochial school children from the city alone, demonstrated this. One-hundred-ninety-five parochial school children are almost fifty-one percent of all the children confirmed, and the sample does not include nearly all the parochial school children confirmed. Therefore the sample is not so heavily weighted as it might appear at first glance with children whose performance may be superior to that of the population, but at the same time, it is not strictly random.

| | | | | | | | |
|----------------|-----|--------|-----|-------|-----|---------|-----|
| Wesleyan | 130 | Method | 170 | Pres | 110 | Evangel | 210 |
| Episcopal | 50 | Other | 30 | Other | 170 | Other | 100 |
| Not Affiliated | 30 | Method | 30 | | | | 30 |
| Total | 190 | Total | 230 | Total | 280 | Total | 340 |

TABLE 3

Educational and Home Backgrounds of Sample

Educational Backgrounds

| I. PAROCHIAL SCHOOL N = | II. CHURCH ATTENDANCE N = | III. SUNDAY SCHOOL ATTENDANCE N = | IV. CONFIRMA- TION CLASS N = |
|-------------------------------|---|---|--|
| Now attending 216 | Every Sunday 188 Often 54 Not Often 7 | Every Sun. 185 Often 45 Not Often 19 Total 249 | Two Years 112 One Year 128 Less 8 Total 248 |
| Once attended 10 | Total 249 | | |
| Never attended 24 | | | |
| Total 250 | | | |

Home Backgrounds

| V. PARENTS' CHURCH ATT. N = | VI. PARENTS LUTHERAN N = | VII. FAMILY DEVOTIONS N = | VIII. LIVES WITH PARENTS N = |
|---|---|---------------------------------|--------------------------------------|
| Every Sun. 130 Often 66 Not Often 53 Total 249 | Both 172 One 54 Neither 24 Total 250 | Yes 115 No 134 Total 249 | Both 220 Only one 30 Total 250 |

CHAPTER IV

PERFORMANCE IN THE FIRST SAMPLING

The first sampling for the study was taken in May, 1950. In most cases, the test was administered in regular sessions, either in parochial schools by teachers, or in confirmation class sessions by pastors. In a few cases, the tests were administered in Sunday school or Bible class sessions on Sunday morning by the class teachers.

There was no time limit for the test, but the children were directed to fill every blank. Those who did not finish were necessarily dropped from the sample. Since the test was not to be completed within a specified time, speed of performance could not be made a limiting factor. Moreover, no valid comparison could have been made retaining tests not finished since there was no guarantee that all groups had the same period of time to work or that each child would have had the same amount of time to complete the test the second time it was administered. In all the twenty-four groups, there were only five pupils who did not finish.

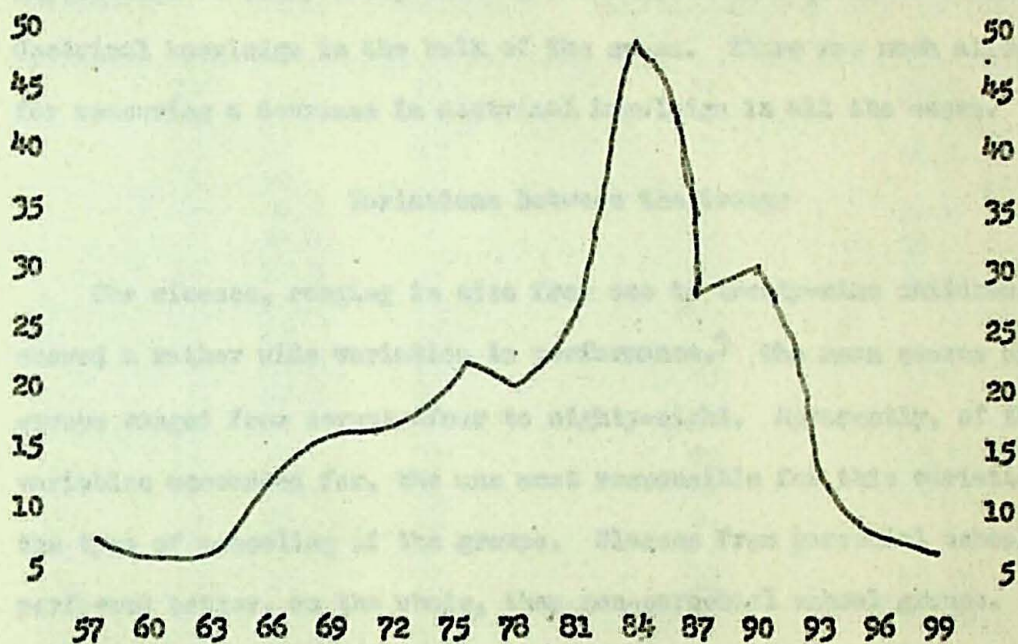
Since some items involving judgment were included in the test, the children were specifically directed to select only the best correct choice to complete each statement.

The performance of the children in the first sampling falls into a distribution markedly skewed to the left.¹ The scores ranged from fifty-

¹Of. Graph III, Curve of Performance in First Sampling, p. 28.

GRAPH III

CURVE OF PERFORMANCE IN FIRST
SAMPLING



Mean

80.6

Median

82.39

seven to ninety-eight with a mean, 80.60 and a median, 82.39.² This mean was probably higher than an ideal test for this population would allow because it leaves less room for measuring improvement, but since no child had a perfect score, and there were only five children scoring above ninety-four, there was, theoretically, still some room to measure improvement in every case, and a great deal of room to measure increased doctrinal knowledge in the bulk of the cases. There was much allowance for measuring a decrease in doctrinal knowledge in all the cases.

Variations Between the Groups

The classes, ranging in size from one to twenty-nine children, showed a rather wide variation in performance.³ The mean scores of the groups ranged from seventy-four to eighty-eight. Apparently, of the variables accounted for, the one most responsible for this variation was the type of schooling of the groups. Classes from parochial schools performed better, on the whole, than non-parochial school groups. All groups above the eightieth percentile (the top four groups) were from parochial schools, whereas the two groups with the lowest mean scores were not from parochial schools. Only one parochial school class fell below the first decile. It must be remembered in this connection that the sample contained three times as many parochial school classes as non-parochial school groups.

²Cf. Appendix G, Frequency Distribution V, Scores in First Sampling with Percentile Ranks.

³Cf. Table 4, Means, Medians, and Percentiles of Groups in First Sampling, p. 30.

TABLE 4

MEANS, MEDIANS, AND PERCENTILE RANKS OF
GROUPS IN FIRST SAMPLING

| <u>Group number</u> | <u>N</u> | <u>Means</u> | <u>Medians</u> | <u>Percentile Rank</u> (by means) | <u>Score</u> |
|---------------------|----------|--------------|----------------|--------------------------------------|--------------|
| 1. | 19 | 88.2 | 90 | 99 | 88.2 |
| 2. | 8 | 87.5 | 89.5 | | |
| 3. | 9 | 87 | 87 | 90 | 86.8 |
| 4. | 9 | 86 | 87 | | |
| 5. | 3 | 84.7 | 85 | 80 | 84.7 |
| 6. | 7 | 83.6 | 83 | 75 | 83 |
| 7. | 17 | 82.8 | 84 | 70 | 82.3 |
| 8. | 5 | 82.2 | 81.4 | | |
| 9. | 12 | 81 | 85.5 | | |
| 10. | 4 | 80.5 | 85.5 | 60 | 80.3 |
| 11. | 6 | 80.2 | 85 | | |
| 12. | 19 | 80 | 81 | | |
| 13. | 20 | 80 | 81 | 50 | 79.80 |
| 14. | 29 | 79.4 | 81 | 40 | 79.15 |
| 15. | 5 | 79 | 81 | | |
| 16. | 8 | 79 | 80 | | |
| 17. | 6 | 79 | 78 | 30 | 78.55 |
| 18. | 18 | 77 | 77 | 25 | 77.16 |
| 19. | 7 | 76.7 | 76.8 | | |
| 20. | 14 | 76.6 | 75.5 | | |
| 21. | 5 | 76 | 77 | 10 | 74.9 |
| 22. | 7 | 74.6 | 75 | | |
| 23. | 12 | 74 | 72.5 | | |
| 24. | 1 | 74 | 74 | | |

Median of Means: 79.80

Mean of Means: 80.46

At first glance at the table, it might be assumed that larger groups performed better than smaller ones, but actually it is more probable that differences apparently related to size of groups were due to other factors. The group with the highest mean score was large, containing nineteen children, while the class scoring lowest consisted of one child only. Four groups containing more than fifteen cases fell above the median, while only two such groups were below the median. Only five groups smaller than eight fell above the median, while six groups of fewer than eight cases fell below the median. However, the largest class in the study fell below the median, a group of twelve fell below the first decile, and a class of only three fell above the eighth decile. It is likely, therefore, that size of groups had little, if anything, to do with performance.

Significance of Sex, Age, and Grade Differences⁴

The test showed no apparent difference between the doctrinal knowledge of boys and girls.⁵ The boys' mean score was 79.92 (122 cases), while that of the girls was 81.44 (128 cases). The level of confidence

⁴Cf. Table 5. Summary of Mean Differences Related to Variables Accounted in First Sampling, p. 33.

⁵Cf. Appendix C. Frequency Distribution VI. Scores in First Sampling Distributed According to Sex.

at which we could assume the difference significant is far too low⁶ (10.52%).

The ages of the children apparently did not influence their performance as much as their grades in school. Although all children were considered ready for confirmation in their parishes, it seems probable that children who were at the normal grade and age level for confirmation performed better than others.⁷ Except for the four twelve-year-olds in grade seven whose mean score was 85.50, the 149 thirteen-year-old eighth-graders scored highest, with a mean of 81.99. Scores of older children in the eighth grade dropped with each additional year of age. The seventy eighth-graders aged fourteen scored a mean of 79.92; seven aged fifteen scored a mean of 74.13; three aged sixteen, a mean of 74.00. Two ninth-graders scored a mean of 72.00. The seventh-graders, except for the four twelve-year-olds mentioned above, scored well below the normal children. Eight thirteen-year-old seventh-graders scored a mean of 74.25, and one fourteen-year-old seventh-grader scored 66.00. It is possible that the seventh-graders who were confirmed in this sampling were instructed for early confirmation for reasons of necessity, and thus were not subjected to as intensive a training program as the normal group. Older eighth-graders may have been below normal in mental capacity and

⁶Cf. Appendix D, Formula II, Significance of Difference Between Means of Scores Distributed According to Sex.

⁷Cf. Appendix G, Frequency Distribution IV, Scores in First Sampling Distributed by Grade-level and Age-level.

TABLE 5

SUMMARY OF MEAN DIFFERENCES RELATED TO
VARIABLES ACCOUNTED IN FIRST SAMPLING

| <u>FACTOR</u> | <u>N</u> | <u>MEAN</u> | <u>FACTOR</u> | <u>N</u> | <u>MEAN</u> |
|----------------------------------|----------|-------------|--|----------|-------------|
| I. Sex (not significant): | | | VI. Sunday School Attendance: | | |
| Boys | 122 | 79.92 | Weekly | 185 | 83.92 |
| Girls | 128 | 81.44 | Often | 45 | 78.66 |
| | | | Not often | 19 | 77.37 |
| II. Grade: | | | VII. Confirmation class: | | |
| Eight | 231 | 81.00 | Two yrs. | 112 | 78.54 |
| Seven | 13 | 77.08 | One yr. | 128 | 82.36 |
| Nine | 2 | 72.00 | Less | 8 | 81.00 |
| III. Age (by grade): | | | VIII. Parents' Church Attendance: | | |
| Seventh grade | | | Weekly | 130 | 82.25 |
| 12 yrs. | 4 | 85.50 | Often | 66 | 80.09 |
| 13 | 8 | 74.25 | Not often | 53 | 78.45 |
| 14 | 1 | 66.00 | | | |
| Eighth grade | | | IX. Parents Lutheran: | | |
| 13 | 149 | 81.99 | Both | 172 | 81.70 |
| 14 | 70 | 79.92 | One | 54 | 78.00 |
| 15 | 7 | 74.13 | Neither | 24 | 79.33 |
| 16 | 3 | 74.00 | | | |
| Age unknown | | | X. Family Devotions: | | |
| | 2 | 78.00 | Yes | 115 | 80.64 |
| | | | No | 134 | 80.60 |
| Ninth grade | | | XI. Lives with Parents: | | |
| 13 | 1 | 72.00 | Both | 220 | 80.63 |
| 14 | 1 | 72.00 | One | 30 | 80.80 |
| IV. Schooling: | | | | | |
| Parochial | 216 | 81.10 | | | |
| Formerly Parochial | 10 | 77.30 | | | |
| Never Parochial | 24 | 77.42 | | | |
| V. Church Attendance: | | | | | |
| Weekly | 188 | 81.40 | | | |
| Often | 54 | 78.57 | | | |
| Not often | 7 | 72.87 | | | |

therefore retarded in school and in confirmation instruction. They may also have missed school for other reasons necessitating slow progress. Either of these factors might account for their low scores. The large group of children (231) in the eighth grade (the normal grade for confirmation) had the highest mean score, 81.00. Next highest were the thirteen seventh-graders with a mean of 77.08. Lowest mean score by grades was that of the two ninth-graders, 72.00. Accordingly, it could be assumed that the group best prepared for confirmation, and best grounded for a program of post-confirmation learning was the group of 231 eighth-graders. Within that group, it could be further assumed that the group best prepared for further learning was again the normal one, the 149 thirteen-year-olds. The few children in grades seven and nine were possibly not normal. Therefore results of their tests probably did not provide a valid basis for forming conclusions about children of their ages or grade levels in the entire population.

Influence of Religious Education on Performance⁸

Apparently, the accounted variables having the most direct effect on the performance of the children in the sample were educational backgrounds. Each factor accounted for in the questionnaire was broken down separately, and the mean scores of the children who fitted into each of the educational categories fixed by the questionnaire were tabulated.

⁸Of. Table 5, Summary of Mean Differences Related to Variables Accounted in First Sampling, p. 33.

The most effective educational agency for these children was probably the parochial school.⁹ The 216 children who were attending parochial schools scored a mean of 81.10. The mean score for those who formerly attended a parochial school was 77.30 (ten cases), and the mean score of those who had never attended parochial schools was 77.42 (twenty-four cases). The difference between the latter two categories was negligible. It is possible that many of those who had once attended a parochial school had been out of it for six or seven years, and had not attended a parochial school since the primary grades. The amount of doctrinal knowledge retained from the primary level would have been small. The relatively large proportion of parochial school children in the sampling made this measurement of differences alone somewhat unreliable, but on the basis of the differences shown consistently in all the factors between the means of children having different educational backgrounds, it was valid to conclude that the parochial school, with its intensive religious instruction program, did account for a difference in performance of its children.

Those children who attended church regularly scored better than those who did not.¹⁰ The 188 children who said they went to church every week scored a mean of 81.40 while those who said they went often but not every week scored a mean of 78.57 (54 cases). Only seven said they did not attend church often, so their mean of 72.87 probably was unreliable

⁹Of. Appendix C, Frequency Distribution VII, Scores in First Sampling Distributed According to Type of Schooling.

¹⁰Of. Appendix C, Frequency Distribution VIII, Scores in First Sampling Distributed According to Frequency in Church Attendance.

for a comparison with the others. Nevertheless, it was significant that the seven children in the study who did not attend church regularly, for the most part, had very low individual scores.

It remained a question whether church attendance in itself was a major contribution to the acquisition of doctrinal knowledge, or whether the church attendance of these children might not have been a rude barometer indicating the extent of their training by other religious education agencies. Might it not have been parochial school training or regular Sunday school attendance which influenced the church attendance habits of the children in the study, so that those who attended church regularly might have scored higher because they were also in Sunday school regularly or because they were taught to attend church in their parochial school instruction? On the basis of the evidence this question could not be answered, but the possibility remained that the church service geared for adults might not be particularly valuable as an agency for the religious training of children in spite of the difference in mean scores obtained here.

The mean scores for Sunday school attendance probably showed the greatest significant difference.¹¹ Those who said they attended Sunday school weekly scored a mean of 83.92 (185 cases). Those who said they attended often scored 78.66 (forty-five cases). Those who did not attend Sunday school often scored a mean of 77.37 (nineteen cases). This mean was probably more indicative of a trend than the mean of those who did not

¹¹Cf. Appendix C, Frequency Distribution IX, Scores in First Sampling Distributed According to Frequency in Sunday School Attendance.

attend church often because a larger number did not attend Sunday school often. Those who said they attended Sunday school weekly scored a higher mean than any group in any of the educational factors considered. It could not be assumed from this that Sunday school instruction was more effective than that of any other agency, for it could not be known whether the high score of this group was attributable to their Sunday school training. It is more probable that the figure was high because the best parochial school and non-parochial school pupils attended Sunday school very regularly, while pupils with less interest or aptitude for learning religion might not have attended the non-compulsory Sunday school classes so often.

At first glance the mean scores of the children attending confirmation instruction classes for various lengths of time might be perplexing.¹² The 112 children who attended confirmation classes for two years scored a mean of 79.54, while the 128 who attended classes for only one year scored 82.36. The eight who attended confirmation classes for an even shorter period than a year scored 81.00. The fact that those who attended confirmation classes for only a year scored higher than those who attended classes twice as long was significant but not surprising for this reason: it is quite normal in some parishes to require only one year of confirmation class attendance for children who have been attending parochial schools until the time they are confirmed. Most of the

¹²Gf. Appendix C, Frequency Distribution X, Scores in First Sampling Distributed According to Length of Time Spent in Confirmation Classes.

large groups which attended confirmation classes for only a year were parochial school children, while many who attended instruction classes for two years were non-parochial school children. Of course, some of the parochial school children were also in the two year confirmation group. This fact added weight to the belief that even a thorough two year confirmation instruction program could not provide as thorough a doctrinal knowledge foundation as the parochial school provided.

In summing up the influence of the religious education backgrounds of various groups in the sample, the conclusion was reached that the regular attendance of children at church and Sunday school, together with parochial school training, combined to produce a higher mean score than just one of the above factors produced alone. This was confirmed by distributing the scores of all pupils according to the extent of their utilization of the three agencies, Sunday school, parochial school, and church services. Pupils who used one or more of these agencies regularly (i.e., those attending parochial school at the time they took the test, attending Sunday school weekly, or attending church services weekly) were assigned to a group according to the number of these agencies they used to the fullest extent. Thus, if a pupil said he used all three agencies as fully as the questionnaire permits description, he was placed in the "three" group. If he used two fully, he was placed in the "two" group; and if he used only one as fully as possible, his score fell into the "one" group.¹³ The mean scores of all groups

¹³ Cf. Appendix G, Frequency Distribution XI, Scores in First Sampling Distributed According to the Number of Religious Education Agencies Utilized as Fully as Possible.

were next determined. Pupils who used all three agencies fully (140 cases) scored a mean of 82.18; those using two agencies fully (sixty-three cases) scored a mean of 80.97; and the "ones" (forty-four cases) scored a mean of 76.35. Because the confirmation class variable tended to provide in many cases merely a "negative" side of the parochial school variable, it was not included in this breakdown. It will be noted that this breakdown did not provide a picture of the relative effectiveness of the various agencies, but merely of the combined effect of two or three agencies as compared with the effect of a single one. Further, it did not reveal which two agencies or which single agency had greatest effect. It should not be assumed, therefore, that the effect of each agency was equal. It could well be, for example, without violating the evidence presented here, that the influence of the parochial school was the strongest, and that parochial school children simply tended to utilize the other agencies more fully than non-parochial school children.

14

Influence of the Home on Performance

It is probable that for most children the home provided little direct religious education, but rather had an indirect influence on the religious training of children by making it possible for children to utilize the agencies provided by the church. Good homes may have done more for their children, but the results of this study provided no

¹⁴Of. Table 5, Summary of Mean Differences Related to Variables Accounted in First Sampling, p. 33.

compelling evidence pointing in that direction.

Parents' church attendance habits apparently had some influence on scores.¹⁵ Those children who said both their parents attended church every week (130 cases) had a mean score of 82.25. Those who said their parents attended church often (sixty-six cases) scored a mean of 80.09. The fifty-three children who said neither parent attended church often scored a mean of 78.45. This influence might have been explained by assuming that parents who attended church most regularly probably tended to bring their children with them and to see that they attended Sunday school regularly, as well as to send them to parochial schools if possible.

The denominational background of parents seemed to have some indirect influence on scores, and a trend might have been indicated.¹⁶ The 172 children who said that both their parents were Lutheran had a mean score of 81.70. The fifty-four who said one parent was Lutheran scored a mean of 78.00, and the twenty-four who said neither of their parents was Lutheran scored 79.33. It is true that many of the children who said

¹⁵Cf. Appendix C, Frequency Distribution XII, Scores in First Sampling Distributed According to Frequency of Parents' Church Attendance.

¹⁶Cf. Appendix C, Frequency Distribution XIII, Scores in First Sampling Distributed According to Denominational Background of Parents.

their parents were Lutheran also indicated that they did not attend church, and thus exerted little positive influence on the training or habits of their children.

Apparently, the children's scores were uninfluenced by family devotions at home.¹⁷ Those who said they had them (115 cases) scored a mean of 80.64, and those who did not (134 cases) scored a mean of 80.60. It might have been true that family devotions were often meaningless reading of prepared materials which did not interest or involve the children. This would have accounted for the apparent impotency of the family altar as an educational agency. It would seem that those homes which produced the pupils most regular in church and Sunday school attendance would have been the homes with regular devotions, but the results here indicated no such relationship.

The small number of children coming from broken homes were evidently not handicapped in their performance on the test.¹⁸ The 220 who lived with both parents scored a mean of 80.63, while the thirty who lived with only one or neither of their parents scored a mean of 80.80. The test did not, of course, attempt to discover emotional patterns produced by the broken home, but merely the effect of parents' separation on doctrinal knowledge retention. The influence of this factor on performance was nil.

¹⁷ Cf. Appendix C, Frequency Distribution XIV, Scores in First Sampling Distributed According to Whether or Not Family Devotions Were Held in the Pupils' Homes.

¹⁸ Cf. Appendix C, Frequency Distribution XV, Scores in First Sampling Distributed According to Whether or Not Child Was Living with Both Parents.

It was difficult to determine which of the home factors or educational factors evidencing a relationship with score differences exercised the most direct and forceful influence on the children's performance. It is probable that the relationship between these factors and score differences was one of total impact and mutual cause and effect rather than one dependent upon individual factors alone. The church-going parent tended to make for a child interested in religion and in the agencies of the church which provide doctrinal education. Children under the positive influence of all these agencies, including the home, tended to score higher than those who were under the influence of isolated agencies.

CHAPTER V

DESCRIPTION OF THE SECOND SAMPLE

The second administration of the test aimed at measuring again all of the children tested in the first administration. However, because of inevitable losses within parishes, and losses of whole groups, it was not possible to test all of the children who comprised the first sample. There were some significant changes in the character of the sample because of these losses. For this reason, the children tested in the first administration have been referred to as the first sample. Those tested in the second administration, although no new cases were introduced, were termed the second sample.

The second sample was much smaller than the first because of the losses referred to above. Six groups did not return tests mailed to them, in spite of repeated reminders to do so. These groups contained one, five, five, six, nine, and twelve cases respectively, a total of thirty-eight cases. Sixty-nine cases were lost because of absence in eighteen classes participating in the second sampling. Eleven tests were not finished and could not be used for data. Thus, a total of 118 cases, or forty-seven percent of the cases in the first sample were lost. The second sample, therefore, contained 132 cases, or fifty-three percent of the cases in the first sample.

The changes in the educational and home backgrounds of the second sample were significant. On the assumption that, by pure chance alone, a test administered on any given Sunday morning would find a large proportion of the habitual absentees missing, and bearing in mind that

teachers were given the tests for several weeks and were requested to test all the children they could reach over that period, it was probably safe to conclude that the cases missing from the second sample tended to show which children dropped out of Bible classes earliest after confirmation. It might reasonably be inferred, furthermore, that those who dropped from Bible classes were already becoming the least active in all areas of church life.

In order to determine whether or not education and home variables had an effect on the later church life habits of the children, the proportion of cases falling into each category in six of the variables accounted for in the first sampling were compared in both samples. It was discovered that, except for parochial schooling, the second sample contained much higher proportions of children in each of the categories ordinarily considered favorable.¹

Apparently, parochial school education had little effect on Bible class attendance. The first sample contained 86.4 percent parochial school children, while the second sample contained 85.6 percent parochial school graduates. This may have been an indication that instruction alone was not sufficient for establishing desirable church life habits, but that actual practise in being a good church member developed the habits necessary.

In sharp contrast to parochial school instruction, church attendance

¹ Of. Table 6, Proportion of Children in Each Sample Falling into Each Category of Six Variable Factors, p. 45.

TABLE 6
 PROPORTION OF CHILDREN IN EACH SAMPLE FALLING
 INTO EACH CATEGORY OF SIX VARIABLE FACTORS

| Factor & Category | % in First Sample | % in Second Sample |
|------------------------------------|-------------------|--------------------|
| <u>SCHOOLING</u> | | |
| Parochial | 86.40 | 85.60 |
| Formerly Parochial | 4.00 | 5.40 |
| Never Parochial | 9.60 | 9.00 |
| <u>CHURCH ATTENDANCE</u> | | |
| Weekly | 75.20 | 82.61 |
| Often | 21.60 | 16.63 |
| Not often | 2.80 | .76 |
| Unknown | .40 | |
| <u>SUNDAY SCHOOL ATTENDANCE</u> | | |
| Weekly | 74.00 | 84.85 |
| Often | 18.00 | 12.12 |
| Not often | 7.60 | 2.27 |
| Unknown | .40 | .76 |
| <u>PARENTS' CHURCH ATTENDANCE</u> | | |
| Weekly | 52.00 | 58.33 |
| Often | 26.40 | 21.21 |
| Not often | 21.20 | 19.71 |
| Unknown | .40 | .76 |
| <u>PARENTS' CHURCH AFFILIATION</u> | | |
| Both Lutheran | 68.80 | 75.00 |
| One Lutheran | 21.60 | 18.18 |
| Neither Lutheran | 9.60 | 6.82 |
| <u>LIVED WITH PARENTS</u> | | |
| Both | 88.00 | 90.91 |
| One | 12.00 | 9.09 |

seemed to have a tremendous influence on later church life. In the first sample, only 75.2 percent of the children said they attended church services weekly. These children made up 82.61 percent of the cases in the second sample. This meant that most of those who were regular in church attendance at confirmation were still regular nine months later, while many of those who were not regular in church attendance at confirmation did not attend Bible classes later and were probably still not very active in church life.

The greatest proportionate difference between the two samples was in the group attending Sunday school or Bible classes regularly. In the first sample, only 74.00 percent of the children said they attended Sunday school weekly. These children comprised 84.85 percent of the cases in the second sample. Evidently those who went to Sunday school regularly at confirmation still tended to be most regular after confirmation, and vice versa.

The home variables accounted in the first sample seemed to have considerable influence on the church life habits of the children over the period tested.

Parents' church attendance definitely influenced the habits of their children. Only 52.00 percent of the children in the first sample said their parents attended church weekly. These children comprised 58.33 percent of the cases in the second sample.

The religious affiliations of parents made a difference also in the proportion of children available for retesting. In the first sample 68.80 percent of the children said that both their parents were Lutheran. In the second sample 75.00 percent of the cases were children both of

whose parents were Lutheran. The children who said only one of their parents was Lutheran made up a slightly smaller proportion of the second sample than of the first. In the first sample, 21.60 percent said one parent was Lutheran, while only 18.18 percent of the second sample was comprised of these children. Finally, 9.60 percent of the children in the first sample said neither parent was Lutheran, while only 6.82 percent of the cases in the second sample were from completely non-Lutheran homes.

Homes broken through separation or death of a parent had a noticeably negative influence on church life habits. In the first sample, 88.00 percent of the children said they lived with both their parents, while these children comprised 90.91 percent of the cases in the second sample.

Thus the home, which had so little apparent effect on the children's ability to learn religion, came into its own as a builder of church life habits.

Conversely, the parochial school, which was probably the most potent agency for instruction in doctrine, had less evident effect upon later church life habits than any of the other agencies considered. Apparently, the habit of going regularly to church and Sunday school formed in early life by the example of parents had much more influence on actual church life habits than verbal instruction in any of the teaching agencies accounted for.

It will be recalled that the children who made highest scores in the first sample were those who utilized regularly the educational agencies in the church, and who came from homes where parents made use of them. It was that group which, according to the analysis above, dominated the

second sample. Therefore the second sample represented the best group of children in the study. Conclusions presented in subsequent chapters then, were based upon the performance of a select group of children.

The test was administered for the second time between Sunday, March 21, and Sunday, April 1, 1931. Only children who had been tested in the first sampling were tested again, and every effort was made to administer the test to as many of these as could be reached in regular Sunday Bible classes. In most groups the test was administered by the regular Bible class instructors, although in a few groups the principal school teachers administered the test. The instrument used in the second sampling was identical with that used in the first. The second sampling, however, dispensed a machine score answer sheet instead of blanks to be filled out on the question sheet. Furthermore, no variables were investigated except whether or not the pupil was enrolled in the Lutheran Home school.

Although thirty-nine percent of the score showed some improvement in performance in the second sampling, the results of comparing performance in both samplings showed a definite drop in the performance of the group over the time to ten month period after the first sampling was taken.

A comparison of the two mean scores of the 132 children participating in both samplings showed a drop in the second mean score of these children. The mean score of these children in the first sampling was 41.35. The mean score of the same group in the second sampling was 38.65.

24. *Annals of the Lutheran Home, Report on the Results of the Study of the Children's Participation in the Home School.*

CHAPTER VI

RESULTS INDICATED IN THE SECOND SAMPLING

The test was administered for the second time between Sunday, March 11, and Sunday, April 1, 1951. Only children who had been tested in the first sampling were tested again, and every effort was made to administer the test to as many of these as could be reached in Sunday morning Bible classes. In most groups the test was administered by the regular Bible class instructors, although in a few groups the parochial school teachers administered the test. The instrument used in the second sampling was identical with that used in the first. The second sampling, however, employed a machine score answer sheet instead of blanks to be filled out on the question sheet. Furthermore, no new variables were investigated except whether or not the pupil was enrolled in the Lutheran High School.

Although thirty-nine percent of the cases showed some improvement in performance in the second sampling, the results of comparing performance in both samplings showed a definite drop in the performance of the group over the nine to ten month period after the first sampling was taken.

A comparison of the two mean scores of the 132 children participating in both samplings showed a drop in the second mean score of these children. The mean score of these children in the first sampling was 81.55. The mean score of the same group in the second sampling was 80.66¹

¹Cf. Appendix C, Frequency Distribution XVI, Scores in Both Samplings of the Children Participating in the Second Sampling.

The drop was even more accurately demonstrated by a comparison between the first and second scores of each child to determine individually whether progress had been made, and to what extent. Eighty of the children, sixty-one percent, had not improved or had actually lost some of the doctrinal knowledge they had at confirmation time. Of these, sixty-six children, or fifty percent of the second sample, had actually dropped in performance, while fourteen, or 10.6 percent, had remained at their original performance level with no improvement.

A distribution of the positive and negative intervals of difference between the two scores of each child also indicated an overall drop in performance.² Differences ranged from minus thirty-two to plus sixteen score points. The mean difference in this distribution of differences was negative, -1.71 score points. The median of this distribution was -.67 score points. The variation between the mean and the median merely showed that a few negative differences were very low and that these tended to pull the mean lower than the median as a measure of central tendency. The median, however, indicates that even without considering the numerical value of these large differences, the central tendency of the group was to drop in performance.

The strongest evidence of a general drop in performance was demonstrated within the groups themselves. Besides the first means of each group in the first sampling, two more means were calculated for each group. The second was the mean of the first sampling scores of those

²cf. Appendix O. Frequency Distribution XVII. Differences Between the Two Scores of the Children Participating in the Second Sampling.

children in the group who participated in both samplings. The third was the mean of the scores of these children in the second sampling.³ In twelve of the eighteen groups, the groups means for the scores of the children in both samplings were lower in the second sampling than in the first. This meant that the doctrinal knowledge of the children in two-thirds of the groups participating had decreased over the period between the samplings.

This decrease in performance was all the more significant because the children in the second sample were the best performers from the original sample. The mean score of the first sample was 80.6, while the first mean score of the children in both groups was 81.55. In other words, these children performed better in the first sampling than the average for the whole first sample. Furthermore, by comparing the first mean for each group with the first sample mean of the children of that group participating in both samplings, it was discovered that in eleven of the eighteen groups, the original means of the children participating in the second sampling were higher than the original means for their total groups.⁴ Thus in nearly two-thirds of the classes the children who took the second test tended to be superior in performance to the others in their groups. Therefore the drop in performance measured in the study was that of superior children who should have been learning better than average over the period between the tests.

³Cf. Table Z. Comparison of Means for Groups Participating in Both Samplings, p. 52.

⁴Cf. Ibid.

TABLE 7
COMPARISON OF MEANS FOR GROUPS PARTICIPATING
IN BOTH SAMPLINGS

| <u>Group</u> | <u>First Sample Means</u> | | <u>Second Sample Means</u> | |
|--------------|---------------------------|--|-----------------------------------|-----|
| | Mean for Total Group | Mean for children in Both Samplings | Mean for Group's Second Sample | |
| 1. | 88.20 | 87.93 ** | 87.50 | *** |
| 2. | 87.50 * | 88.71 ** | 86.57 | *** |
| 3. | 87.00 | 87.00 ** | 85.89 | *** |
| 4. | 84.70 | 84.67 ** | 81.00 | *** |
| 5. | 83.60 * | 84.66 ** | 80.00 | *** |
| 6. | 82.80 * | 88.00 | 88.60 | |
| 7. | 82.20 * | 85.00 | 87.00 | |
| 8. | 80.50 | 76.33 | 81.67 | |
| 9. | 80.00 * | 80.54 | 83.09 | |
| 10. | 80.00 * | 80.25 ** | 78.33 | *** |
| 11. | 79.40 | 73.90 | 76.80 | *** |
| 12. | 79.00 * | 79.67 ** | 78.33 | *** |
| 13. | 79.00 * | 79.50 ** | 77.33 | *** |
| 14. | 77.00 | 76.72 ** | 69.36 | *** |
| 15. | 76.70 | 76.67 ** | 74.33 | *** |
| 16. | 76.60 * | 78.70 | 82.30 | |
| 17. | 74.60 * | 76.00 ** | 73.33 | *** |
| 18. | 74.00 * | 82.00 ** | 76.40 | |

* indicates groups in which the first mean for those children who participated in the second sampling was higher than the first mean for the total group.

** indicates groups in which the second mean was lower than the first mean for those children who participated in both samplings.

*** indicates groups in which the second mean for children participating in both samplings was lower than the mean for the total group in the first sampling.

Effect of Variables on Performance Differences

In spite of the fact that all of the variables considered in the study, except type of schooling, seemed to influence habits of church life, only the parochial school indicated any positive influence on actual score differences.⁵

Of the 132 children in both samples, 113 had graduated from parochial schools. The mean of the differences between their two scores was $-.89$. Seven who had once attended parochial schools but graduated from public schools had a mean difference of -1.072 . The twelve children who had never attended parochial schools scored a mean difference of -2.00 .⁶ Moreover 40.7 percent of those who had graduated from parochial schools showed actual improvement in performance, while of those who had once attended parochial schools only 28.6 percent showed improvement, and of those who had never attended parochial schools only 33.3 percent improved.

The differences between those who had attended church weekly and those who had not were indicative of a trend.⁷ The 109 who had said they

⁵Cf. Table 8, Summary of the Influence of Accounted Variables on Score Differences of Children Participating in Both Samplings, p. 54.

⁶Cf. Appendix C, Frequency Distribution XVIII, Differences Between Scores of Children in Both Samplings Distributed According to Type of Elementary Schooling.

⁷Cf. Appendix C, Frequency Distribution XIX, Differences Between Scores of Children in Both Samplings Distributed According to Church Attendance Habits.

TABLE 8

SUMMARY OF THE INFLUENCE OF ACCOUNTED VARIABLES ON SCORE DIFFERENCES OF CHILDREN PARTICIPATING IN BOTH SAMPLINGS

| Factor and Category | N- | Mean | % of cases showing improvement |
|---|-----|--------|--------------------------------|
| I. <u>SCHOOLING</u> | | | |
| Parochial | 113 | -.89 | 40.70 |
| Formerly Parochial | 7 | -1.072 | 28.60 |
| Never Parochial | 12 | -2.00 | 33.33 |
| II. <u>SUNDAY SCHOOL ATTENDANCE</u> | | | |
| Weekly | 112 | -1.054 | 40.20 |
| Often | 16 | .50 | 43.80 |
| Not Often | 3 | 0.00 | 33.33 |
| III. <u>CHURCH ATTENDANCE</u> | | | |
| Weekly | 109 | -.922 | 40.40 |
| Often | 22 | -.59 | 40.90 |
| Not Often | 1 | -3.00 | 0.00 |
| IV. <u>SECONDARY SCHOOLING</u> | | | |
| Lutheran High | 59 | -1.008 | 38.90 |
| Public High | 72 | -.666 | 40.30 |
| V. <u>PARENTS' CHURCH ATTENDANCE</u> | | | |
| Weekly | 77 | -1.174 | 39.00 |
| Often | 28 | -.572 | 42.90 |
| Not Often | 26 | -1.576 | 38.50 |
| VI. <u>PARENTS' CHURCH AFFILIATION</u> | | | |
| Both Lutheran | 99 | -.80 | 39.40 |
| One Lutheran | 24 | -1.25 | 45.80 |
| Neither Lutheran | 9 | .388 | 33.33 |
| VII. <u>LIVED WITH PARENTS</u> | | | |
| Both | 120 | -.864 | 39.20 |
| One | 12 | -.834 | 50.00 |

attended church weekly at the time the first sampling was taken scored a mean drop of $-.92$, while the twenty-two who went to church often scored a mean drop of $-.59$. There was only one left in the second sample who had admitted not attending church often at the time of the first sampling. Score, -3.00 . Of those who were considered weekly church-goers, 40.4 percent showed improvement, while of those who went often, 40.9 percent improved.

No differences were indicated which could be attributed to Sunday school attendance.⁸ The 112 who had claimed weekly Sunday school attendance scored a mean difference of -1.05 and 40.2 percent of these improved. The sixteen who said they attended often scored a mean difference of $.5$, and 43.8 percent of these improved. Three who didn't go often scored a mean difference of zero, and 33.3 percent improved.

The children who attended Lutheran High School after confirmation might have been expected to show improvement, but those fifty-nine who were attending Lutheran High scored a mean difference of -1.01 while the sixty-seven who went to public high schools scored a mean difference of only $-.67$.⁹ Only 38.9 percent of the Lutheran High pupils improved while 40.3 percent of the public high school pupils showed improvement. It should be noted that no courses in the Catechism were offered to the ninth grade class at Lutheran High School. Apparently there was little transfer of religious knowledge gained from the religion course they were

⁸Of. Appendix C, Frequency Distribution XX, Differences Between Scores of Children in Both Samplings Distributed According to Sunday School Attendance Habits.

⁹Of. Appendix C, Frequency Distribution XXI, Differences Between Scores of Children in Both Samplings Distributed According to Type of Secondary Schooling.

taking to the doctrinal synthesis these children had learned from the Catechism and Short Explanations.

In summarizing the effect of the various educational agencies of the church on the doctrinal knowledge of these children, it was probably correct to conclude that there was some positive influence toward improvement. There were, after all, sixty-six children who either improved in their performance or made the same scores on their second tests that they made in the first sampling. These children would, because of normal loss of learning, necessarily have forgotten much after nine months had their religious education been completely non-existent. Since six of the groups showed definite improvement by groups, it might be assumed that certain churches were doing more toward instructing their post-confirmation youth in doctrinal theology than others. But there was little reason to believe that instruction in other branches of theology developed in these children a deeper insight into the doctrinal system of the Short Explanations they studied for confirmation.

Generally, the influence of the educational factors after confirmation was small, and not traceable in the study. The parochial school (before confirmation) may have trained for better retention. When the educational factors were combined and the score differences of the children distributed according to the number of agencies used by each child to the fullest possible extent, the results indicated no relationship between score differences and regular or irregular use of the various

educational agencies.¹⁰ If a child utilized all four agencies considered, that is, if he was a parochial school graduate, attended church weekly, attended Sunday school or Bible class weekly, and attended Lutheran High School, his score difference was placed in the "four" column. If he utilized only three agencies, his score difference was placed in the "three" column, etc. There were forty-three cases in the "four" column with a mean difference of $-.594$. The "three" column had a mean difference of -1.556 (fifty-three cases), the "two" column (twenty-three cases) scored a mean difference of $-.934$, and the "one" group (eleven cases) scored a mean difference of 1.010 (positive!). It must be kept in mind that these distributions indicated only score differences and not scores themselves. It is true that those using only one agency had the lowest scores on the first test, and thus could have learned material in this one agency which others already knew at the time they took the first test.

The various factors in home environment showed no relationship to score differences.¹¹ Home devotions were not included because they showed no influence on scores in the first sampling.

No trend was indicated by the distributions of score differences according to frequency of parents' church attendance.¹² Those whose

¹⁰Cf. Appendix C, Frequency Distribution XXII, Differences Between Scores of Children in Both Samplings Distributed According to Number of Educational Agencies Utilized Fully.

¹¹Cf. Table 8, Summary of the Influence of Accounted Variables on Score Differences of Children Participating in Both Samplings, p.54.

¹²Cf. Appendix C, Frequency Distribution XXIII, Differences Between Scores of Children in Both Samplings Distributed According to Parents' Church Attendance Habits.

parents attended church weekly (seventy-seven cases) scored a mean difference of -1.174 , and thirty-nine percent of these children improved. Those whose parents went to church often scored a mean difference of $.572$ (twenty-eight cases), and 42.9 percent of these improved. Those whose parents did not attend church often scored a mean difference of -1.576 (twenty-six cases), and 38.5 percent of these showed improvement.

Those children whose parents were Lutheran showed less improvement than those whose parents were not.¹³ Ninety-nine children said both their parents were Lutheran. Their mean difference was $-.804$, and 39.4 percent of these cases showed improvement. Twenty-four said one of their parents was Lutheran. Their mean difference was -1.25 , and 45.8 percent of these showed improvement. Only nine said neither parent was Lutheran, and these scored a positive mean difference of $.388$. Of these cases, 33.3 percent improved. The evidence would point to no relationship at all between parents' religious affiliations and extent or direction of doctrinal knowledge difference over the period studied.

Finally, no trend was evident depending on the marital status of parents.¹⁴ Of the 120 children who said they lived with both their parents, 39.2 percent improved, and the mean difference was $-.884$. Only

¹³Of. Appendix C. Frequency Distribution XXIV. Differences Between Scores of Children in Both Samplings Distributed According to Parents' Religious Affiliations.

¹⁴Of. Appendix C. Frequency Distribution XXV. Differences Between the Scores of Children in Both Samplings Distributed According to Whether Child Lived With One or Both Parents.

twelve said they lived with one parent. Their mean was $-.834$, and of these fifty percent showed improvement.

Thus it was clear that none of the factors, with the possible exception of the parochial school, could be shown to exert a definite influence on score differences, and that most of the children lost some of the catechetical knowledge they had at confirmation. About a third of the group may have been taking doctrine courses in some of the agencies of their parish education program.

CHAPTER VII

SUMMARY AND CONCLUSIONS

The score differences of children of eighteen parishes in the St. Louis area tested at confirmation and tested again after a nine month period showed a definite loss in knowledge of doctrinal formulation in two-thirds of the classes and in half the children, while sixty-one percent of the children showed no improvement or growth in doctrinal knowledge accomplished over this period. The loss is more significant in the light of the fact that the children available for the second sample tended to be the superior individuals.

Those children who made use of the educational agencies provided by the church, the Sunday school, the Bible class, church services, and Lutheran High School, and who came from homes which could be considered ideal on the basis of the home factors considered in the study did not evidence any more growth than children who came from favorable educational and home environments. The parochial school, a pre-confirmation agency, seemed to influence positively the retention of knowledge already gained. All the factors except confirmation classes and home devotions and of course the Lutheran High School had some positive effect on scores before confirmation. Similarly, all the factors mentioned helped to develop habits of church life as exemplified in regular attendance at Bible class, for far more children with favorable influences were in Bible classes nine months after confirmation than children with less favorable influence factors. The parochial school alone seemed to have no effect on church life habits. This was probably because it was a week-day

agency and therefore attendance at parochial school created no Sunday habit patterns.

The fact that, according to these results, the educational agencies of these parishes of the Missouri Synod tended not to teach for growth in catechetical knowledge after confirmation is a matter for serious concern in a church body with so strong an emphasis on doctrine. These children might reasonably have been expected to show a general pattern of growth over such a long period of time after confirmation, especially since they were the "cream of the crop" so to speak in their habits of church life, in their home environments, in their catechetical knowledge at confirmation, and in their religious education.

Is it reasonable to expect improvement? According to tenets commonly accepted in the Missouri Synod it certainly is. It is true that most of the post-confirmation instruction agencies built their curricula around sources other than the Catechism and its Explanation. Bible classes may have gone directly to the Scriptures and studied them with discussion and explanation. Some of the groups were probably taught Bible history. Lutheran High School does not teach a course in systematic theology to its freshman class. A few of the groups evidently were studying some dogmatics, perhaps using the Catechism. Generally, however, the Catechism was probably not used by most of the children after confirmation.

According to Missouri Synod tradition and practise, however, the doctrinal synthesis set forth in the Short Explanation of the Catechism should be taught and taught again and taught more intensively to people at every age. Growth in grace is accomplished by using the pure Word of

God as a means of grace. Traditionally it is assumed that the Word is kept pure by crystallizing it into a doctrinal synthesis and using the synthesis as an approach to Scripture. Therefore it has been assumed that growth in grace can be safely and efficiently effected by teaching doctrine. The text available for this is the Short Explanation. Therefore, whether these assumptions are true or not, it is certainly not consistent to allow children at the age of thirteen to reach a peak in their knowledge of this doctrinal synthesis and then to forget it gradually while in every other branch of learning, adulthood is regarded as the peak of continuing process of growth and development. If the doctrinal synthesis of the Missouri Synod is the priceless treasure it has been traditionally believed to be, it should be the object of a lifetime of study and growth among laymen as well as pastors.

However, since all Christian doctrine must derive from the Bible, and, according to Missouri Synod belief, the Short Explanation of the Catechism is an adequate and accurate synthesis of the chief doctrines of the Bible, the study of the Bible, Bible history, or any other area of Christian religious knowledge should intensify and improve doctrinal insight and knowledge without continuous study of the system itself. Therefore if the premise is true that the Explanation teaches only the doctrines of the Bible, any good course in Bible study, or even in Biblical history should have caused deepened insight into the system itself and that insight should have been evident in the children's performance on the test.

If, however, the doctrinal synthesis taught in the Explanation is not the only possible one, and if the study of Scripture does not auto-

matically preclude that all students will form identical syntheses, the drop scored by this St. Louis group need not be explained in terms of inadequate teaching after confirmation. Since the Lutheran Church historically has never held itself to one synthesis, but has admitted many, the assumption that all study of Scripture will eventuate in identical formulations of doctrine is probably faulty, and the formulation in the Short Explanation is only one of many possible syntheses of Lutheran theology as taught in Scripture and the confessional writings of the Lutheran Church. Thus it is possible that the educational agencies of the parishes tested and the Lutheran High School were actually instructing the children for deeper insight into the Christian faith, and that the test, designed to determine knowledge of a system, was not capable of measuring growth in terms other than those of the system in the Short Explanation.

At any rate, the situation which presented itself was an awkward one. The parishes tested belonged to a group which prided itself on the purity of its doctrinal synthesis, and has traditionally, though not officially, insisted that its laity be thoroughly educated in that synthesis before receiving them into communicant membership. Nevertheless most of the parishes did not succeed in maintaining or improving the doctrinal knowledge their children had attained after the age of thirteen, at least over the nine to ten month period tested.

In view of the fact that this discrepancy did apparently exist, it would be reasonable to assume that an adjustment could and should be made in the direction of unifying the objectives of religious instruction toward a planned curriculum designed for progressive enrichment of the

individual's insight into the faith throughout his years of instruction. To say that all religious instruction should be instruction for life, even life in the eschatological sense, sounds almost trite. Yet when it is said against the antithesis of a system which aims first at mastery of a doctrinal synthesis and then fails to find further enrichment for life through Scripture occurring in terms of the synthesis, it becomes more than a truism. Certainly, if the degree to which a synthesis lends itself to instruction for the religious life is employed as a criterion for the usefulness of the synthesis in the Short Explanation, one might at least suspect that the synthesis and a teaching method consistent with it have outlived the years of their relevance to life on the basis of the evidence here presented. Certainly the Short Explanation of the Catechism with its doctrinal system should be critically studied both to determine effectiveness as an educational instrument, and the degree to which, through it, the living Word becomes relevant to the lives of the thousands of children who must use the book.

APPENDIX A

Preliminary Measuring Instrument

Test on the Catechism

Name _____ Age _____ Boy _____ Girl _____

Address _____ Date _____

School _____ Grade _____

Directions for taking the test:

Read each statement carefully. Choose the best correct ending to complete each statement. Write the letter representing your choice in the blank before each statement. Remember, choose the best endings.

Example:

 b) 0) The world was created by a) man b) God c) the devil.

 1) Jesus Christ is a) God and man b) half-God half-man
c) only God.

 2) The two large divisions of the Bible are a) The Law and the
Prophets b) Old Testament and New Testament c) Genesis and
Matthew.

 3) We accept the blessings of Baptism a) through faith b) by
being sprinkled or immersed c) when we become confirmed.

 4) God forgives our sins because a) we keep His laws b) we try
to deserve forgiveness c) Christ paid the penalty for them.

 5) The commandment which promises a reward in this life to those
who keep it is the a) 8th b) 4th c) 1st.

 6) The name Jesus means a) Savior b) God c) the Anointed.

 7) We should pray to a) saints and God b) God alone c) anyone
who can help us.

 8) Sin is a) anything we do against God's will b) doing what
we want to do c) being tempted.

 9) On the last day God will raise from the dead a) all men
b) the believers in Christ c) the ungodly.

- ___ 10) We should be merciful and forgiving toward a person who wrongs us a) as many times as it seems reasonable b) as many times as he does wrong c) seven times.
- ___ 11) Those who will be punished in hell are all a) people who sin on earth b) those who are not Lutherans c) those who don't believe in Jesus.
- ___ 12) We should not pray for a) ourselves, because that would be selfish b) the dead c) our enemies, since they are sinful.
- ___ 13) The New Testament teaches a) only Gospel b) only Law c) Law and Gospel.
- ___ 14) The difference between Baptism of adults and of infants is a) adults can believe; infants cannot b) adults are instructed before, infants after Baptism c) infants have two sponsors, adults have one.
- ___ 15) Baptism forgives a) original sins b) original sins and actual sins c) actual sins.
- ___ 16) God promises a) to answer our prayers according to His will b) to give us everything we pray for c) to hear us provided we pray many times over.
- ___ 17) The evil angels a) were created to tempt man b) were sinful men who died and went to hell c) were created holy and sinned later.
- ___ 18) Christ died for a) those who would afterwards believe on Him b) all men c) only the chosen children of God.
- ___ 19) We know that a) Scripture doesn't tell us what happens to babies who die before Baptism b) unbaptized babies are saved c) unbaptized babies are lost.
- ___ 20) Christ's state of humiliation begins with a) His suffering and death b) His being conceived by the Holy Ghost c) His birth.
- ___ 21) When I die my soul will a) go to heaven to be with Christ b) sleep until Judgment Day, then go to heaven c) go to a place where sins are cleansed away by fire.
- ___ 22) To covet means a) to want something sinfully b) any kind of wanting c) to want a thing and try hard to get it.
- ___ 23) The ninth and tenth commandments show that God is interested a) chiefly in our actions b) even in the desires in our hearts c) mostly in the things we say.

- ___ 24) The invisible creation of God was a) devils b) angels and devils c) angels.
- ___ 25) The commandment which really includes all the other commandments is the a) fourth b) first c) tenth.
- ___ 26) When Christ says "I am with you alway" He means He's with us according to a) both His human and divine natures b) His divine nature only c) His Spirit but not His body.
- ___ 27) The purpose of the Bible is a) to make us Christians b) to teach us that there is a God c) to tell us we ought to be good.
- ___ 28) Christ's state of exaltation began with a) His ascension b) His resurrection c) His descent into hell.
- ___ 29) The Bible contains a) 39 books b) 66 books c) 45 books.
- ___ 30) The Holy Christian Church is a) all those who belong to Christian congregations b) all believers in Jesus c) all adult Christians.
- ___ 31) If you steal something you a) must repent, and God will forgive you whether you return it or not b) should destroy it to avoid embarrassment c) must return it if at all possible.
- ___ 32) Some people who hear the Gospel are damned because a) they resist the work of the Holy Spirit b) they try to do good works c) they don't do any good works.
- ___ 33) Christ preaches to us through a) pastors and the Bible b) our thoughts c) the world He created.
- ___ 34) We don't have to offer sacrifice for sins because a) God never liked sacrifices b) sins don't ever have to be paid for c) Christ was the Sacrifice for all our sins.
- ___ 35) The Law brings us to Christ by a) teaching us that Christ died for all men's sins b) showing us our sins and how much we need help c) giving us God's will so we can do it.
- ___ 36) When we rise from the dead our bodies will be a) not the ones we have now, but will look the same b) the same ones we now have c) completely different bodies.
- ___ 37) Many men have never heard of Christ. This means a) that they can keep only a few commandments if they try b) that they can keep all the commandments if they try very hard c) that they can't keep any of the commandments.

- ___ 38) I have faith because a) The Holy Spirit works faith in my heart b) I try very hard to believe in Jesus c) I obey God's laws.
- ___ 39) You are saved by a) what you do; it's not what you believe that counts b) the church you belong to; it's not what you do that counts c) what you believe; it's not what you do that counts.
- ___ 40) We should obey our parents because a) God wants us to accept them as His representatives b) someday they'll be old and we'll be sorry if we didn't honor them c) they're always right when they tell us what to do.
- ___ 41) The angels a) can sin but don't want to because they love God b) aren't able to sin c) sin daily, but are forgiven.
- ___ 42) The world was created by a) the Father alone b) the Triune God, especially the Father c) the Holy Ghost alone.
- ___ 43) The Law is the teaching that a) God wants us to do what is right and avoid what is wrong b) Jesus died for our sins c) Moses broke two stone tables.
- ___ 44) The command "baptize" means we must a) submerge in water b) apply water c) bathe in water.
- ___ 45) Christ had to be man so that He could a) show us the value of poverty b) redeem us c) show us how to live.
- ___ 46) We can't count the people in the Holy Christian Church because a) the Church is spread too far throughout the world b) no census of the Church has been taken c) we can't see the faith in men's hearts which makes them members.
- ___ 47) The Apostle's Creed was written by a) the twelve apostles b) some Christians whose names we do not know c) Peter, Paul, and James.
- ___ 48) If we loved God more than anything else, we would a) be able to keep all the commandments b) never want any money c) never play on Sundays.
- ___ 49) For us, the Third Commandment means we should a) study God's Word b) rest on Sunday instead of Saturday c) study God's Word on Sunday instead of on other days.
- ___ 50) The Gospel is the teaching that a) if we do right, God will reward us b) Jesus died for our sins c) if we do wrong, God will punish us.

- 51) When we call the Bible God's Word, we mean that it was written
a) directly by God b) by God through men c) by men who
thought a great deal about God.
- 52) We Christians don't want to sin because a) we're afraid of
God's punishments b) it isn't really fun to sin c) we love
God and want to please Him.
- 53) One way to distinguish the Father from the Son is a) the
Son is begotten of the Holy Ghost from eternity, but the
Father isn't b) there is no way to distinguish them; both
are the same c) the Father has begotten the Son from eternity
while the Son is begotten of the Father.
- 54) God created a) good angels b) both good angels and devils
c) neither angels nor devils, only people.
- 55) The most important qualification to consider when picking
Baptismal sponsors is a) that they will love the child
b) that they agree to accept the responsibilities of sponsors
c) that they be strong Christians.
- 56) It is good to swear when a) we need to do it to help our
neighbor b) someone thinks we're telling a lie c) we're
sure God will let us repent.
- 57) The Old Testament teaches a) only Law b) Law and Gospel
c) only Gospel.
- 58) The teaching that the husband is the head of the home is
a) a good old custom b) old fashioned and may well be discar-
ded c) Scriptural.
- 59) The particular work of the Father is a) creation b) redemption
c) sanctification.
- 60) When we pray we can use a) only prayers we have learned from
Scripture b) only prayers in Scripture and the Catechism
c) prayers we have learned and prayers we make ourselves.
- 61) I do good works because a) I try very hard to be good
b) God's Law forces me to obey it c) the Holy Spirit gives me
the power.
- 62) Communion of saints means a) all those who are in heaven
b) all believers in Christ c) people who have tried to live
right on earth.
- 63) Man was created a) in God's image and still has it b) in
God's image but lost it c) without God's image, since no
person can look like God.

- ___ 64) When a baby is born into the world it is a) not sinful until it first does something wrong b) neither sinful nor good but always learns to sin soon c) sinful and needs Christ.
- ___ 65) The image of God means a) perfect sinlessness b) looking just like God c) thinking the way God thinks.
- ___ 66) God created and preserves me because a) He loves me b) I'm good c) I deserve His help.
- ___ 67) When we say "Baptism is a Means of Grace" we mean a) that Baptism is a good way of initiating people into the congregation b) that the Holy Ghost works on us through Baptism c) chiefly that Baptism reminds us again and again of God's grace.
- ___ 68) If you find some lost article that isn't yours a) try to find the owner b) you may keep it - "finders keepers" c) leave it where it is - "hands off".
- ___ 69) Baptism should be performed a) usually by pastors; in emergency by any Christian b) usually by Christian laymen, sometimes by unbelievers c) only by pastors who have studied the subject.
- ___ 70) When Jesus eats he is acting according to His a) divine nature b) spiritual nature c) human nature.
- ___ 71) By nature man a) can keep only a part of God's Law b) can't keep God's Law at all c) can keep most of the Law if he really tries.
- ___ 72) In Christ a) the soul is God and the body is man b) the human and divine natures are united c) the spirit is divine and the flesh is human.
- ___ 73) We are saved by a) trying hard to please God b) faith in Christ c) the Bible only.
- ___ 74) Cursing means a) saying filthy words b) wishing that God would punish someone c) taking God's name in vain.
- ___ 75) In the fifth commandment God forbids a) killing by anyone, even the government b) killing animals c) hating people.
- ___ 76) Swearing means a) saying words which God has forbidden us to use b) asking God to be a witness that what we say is true c) wishing that God would punish someone else.
- ___ 77) On Sundays we should a) stay at home and read all day b) not do any work or hard playing c) go to church and Sunday school.

- ___ 78) If you don't envy the prosperity of others a) you're too lazy to work b) you're helping to keep the seventh commandment c) you'll never get anywhere yourself.
- ___ 79) We need to use the Bible often because a) God will be angry with us if we don't b) God will reward us with temporal gifts for reading His Word c) through it the Holy Spirit works faith in us.
- ___ 80) The power in Baptism comes from a) the faith of the person baptized b) the pastor c) God's Word.
- ___ 81) False witnesses in the eighth commandment are a) all those who speak evil of others b) only found in courts c) those who refuse to confess to the charge of theft.
- ___ 82) Without being baptized a) no one may be saved b) only babies can be saved c) those who believe in Christ may be saved.
- ___ 83) The name Christ means a) the Son of God b) the Anointed One c) the Savior.
- ___ 84) To love God above all things means a) to think so much of God, that we spend little time with people b) to bow when we hear God's name c) to live for God.
- ___ 85) The best source of help to lead a clean life is a) firm resolutions b) strong will-power c) God's Word.
- ___ 86) According to the Bible a man who murders should a) be put to death b) be punished in some way c) be put into prison
- ___ 87) We can expect members of the Holy Christian Church to be found wherever the Gospel is preached b) wherever people worship a god c) wherever the Law is preached.
- ___ 88) Tattletales break the a) second commandment b) no commandment c) eighth commandment.
- ___ 89) Creeds are a) very useful as a statement of what we believe b) very useful if we don't take them too seriously c) bad for religion because we believe in deeds, not creeds.
- ___ 90) We should pray for a) chiefly temporal blessings b) spiritual blessings alone c) temporal and spiritual blessings.
- ___ 91) God made all things by a) angel-helpers b) His Word c) forming them out of clay.
- ___ 92) We pray because a) God will punish us if we don't b) prayer puts us into a confident frame of mind c) we need God's gifts.

- ___ 93) Jesus descended into hell a) to suffer there for the sins of the world b) to show Himself Victor over the devil c) to be damned for us.
- ___ 94) We know that babies should be baptized because a) Christ actually says, "Baptize all infants" b) it's best not to take chances c) they are included in the command, "Baptize all nations".
- ___ 95) I can know that there is a God a) only by reading the Bible b) because my conscience tells me He exists c) only because my parents tell me He exists.
- ___ 96) When we say Jesus sits at the right hand of God we mean a) that He's in heaven b) He's on a throne at God's right hand c) He rules all things.
- ___ 97) When we are asked whether we are going to heaven we a) can't ever be sure b) can only hope so c) can answer "yes, certainly".
- ___ 98) If anyone wanted to hold church services on Friday a) it would be wrong because God wants us to worship on Sunday b) it would be all right c) we could prove him wrong from the Bible.
- ___ 99) At the end of the world a) Christ will judge all people b) there will be a thousand years of peace c) a huge battle will take place.
- ___ 100) We should worship God and hear His Word because a) if we don't God will punish us b) it's good to know what's right and wrong c) we need God's Word.
- ___ 101) The Holy Ghost works a) whenever I want Him to work b) when I hear the Gospel c) when I think about God's Law.
- ___ 102) We believe God is three persons but we know a) that there is only one God even though each person is different b) the three persons are different ways of talking about the same thing c) that there are three gods.
- ___ 103) Our Redeemer had to be God so that a) His death would be enough payment for the sins of the world b) He could raise people from the dead c) He could correct the errors of the Pharisees.
- ___ 104) Christians a) can keep only a part of the Law b) can't keep God's Law at all c) can keep only the first three commandments.

- ___105) God punishes people for every sin they commit a) only if they are Christians b) without distinction, whether they are Christians or unbelievers c) only if they are unbelievers.
- ___106) Praying in Jesus' name means asking God to answer our prayers because a) Jesus' name can work miracles b) Jesus paid for our sins c) we shouldn't talk directly to the Father.
- ___107) We should keep God's Law because a) we love God above all things b) He'll punish us if we break too many commandments c) in the long run, it's the best policy to do what is right.
- ___108) The Father is a) God, greater than the Son and the Holy Ghost b) God, equal with the Son and the Holy Ghost c) greater than the Holy Ghost, but equal with the Son.
- ___109) God wants us to keep His commandments a) perfectly, even in our thoughts b) just as well as we can c) only when we can see it's the right thing to do.
- ___110) Christ's body a) left Him at the resurrection b) left Him when He ascended into Heaven c) is still with Him wherever He is.
- ___111) The best way to find out what God is like is a) to study all He made in nature b) to pray c) to read the Bible.
- ___112) God answers a) all proper prayers b) the prayers He has time to answer c) most prayers.
- ___113) A very humiliating experience for Christ was a) His birth as a man b) His descent into hell c) His feeding of the 5,000.
- ___114) The doctrines taught in our Small Catechism come a) from Dr. Martin Luther b) from some holy ancient writers whose names we don't know c) from the Bible.
- ___115) "If it be Thy will" should be a part of all prayers for a) bodily, temporal blessings c) spiritual blessings c) any blessing.
- ___116) God protects me from a) some dangers but not all b) all bodily harm c) every real danger and all evil.
- ___117) When Jesus says, "Blessed are the meek", He is teaching a) Law b) Gospel c) Law and Gospel.

APPENDIX B

Instrument for Conducting Study

Test on the Catechism

Name _____ Address _____ Age _____

Name of Church _____ Boy _____ Girl _____

School _____ Grade in school _____

Please answer carefully all of the following questions about yourself. Fill every blank by writing "yes" or "no". Please don't skip anything.

- 1) Have you ever attended a Lutheran school? _____
- 2) Do you now attend a Lutheran elementary school? _____
- 3) Have you ever attended a Lutheran high school? _____
- 4) Do you now attend a Lutheran high school? _____
- 5) Do you attend church services often? _____ Every week? _____
- 6) Do you attend Sunday School or Bible Class often? _____ Every week? _____
- 7) Have you attended confirmation class 2 years? _____ One year? _____ Less? _____
- 8) Does only one of your parents attend church? _____
- 9) Do both your parents attend church often? _____ Every week? _____
- 10) If neither of your parents attends church often put a check here: _____
- 11) Do both your parents attend a Lutheran church? _____ Only one? _____
Neither one? _____
- 12) Does your family have devotions or Bible Study at home? _____
- 13) Do you live with both your parents? _____ Only one? _____

Directions for taking the test:

Read each statement carefully. Choose the best correct ending to complete each statement. Write the letter representing your choice in the blank before each statement. Answer every question, but try not to guess. Remember, choose the best ending for each statement.

Example:

b 0) The world was created by a) man b) God c) the devil.

_____ 1) Jesus Christ is a) God and man b) half-God half-man
c) only God.

_____ 2) The two large divisions of the Bible are a) The Law and The
Prophets b) Old Testament and New Testament c) Genesis and
Matthew.

_____ 3) We accept the blessings of Baptism a) through faith b) by
being sprinkled or immersed c) when we become confirmed.

_____ 4) God forgives our sins because a) we keep His laws b) we

- try to deserve forgiveness c) Christ paid the penalty for them.
- ___ 5) The commandment which promises a reward in this life to those who keep it is the a) 8th b) 4th c) 1st.
- ___ 6) The name Jesus means a) Savior b) God c) the Anointed.
- ___ 7) We should pray to a) saints and God b) God alone c) anyone who can help us.
- ___ 8) On the last day God will raise from the dead a) all men b) the believers in Christ c) the ungodly.
- ___ 9) We should be merciful and forgiving toward a person who wrongs us a) as many times as it seems reasonable b) as many times as he does wrong c) seven times.
- ___ 10) Those who will be punished in hell are all a) people who sin on earth b) those who are not Lutherans c) those who don't believe in Jesus.
- ___ 11) We should not pray for a) ourselves, because that would be selfish b) the dead c) our enemies, since they are sinful.
- ___ 12) The New Testament teaches a) only Gospel b) only Law c) Law and Gospel.
- ___ 13) The difference between Baptism of adults and of infants is a) adults can believe; infants cannot b) adults are instructed before, infants after Baptism c) infants have two sponsors, adults have one.
- ___ 14) Baptism forgives a) original sin b) original sin and actual sin c) actual sin.
- ___ 15) God promises a) to answer our prayers according to His will b) to give us everything we pray for c) to hear us provided we pray many times over.
- ___ 16) The evil angels a) were created to tempt man b) were sinful men who died and went to hell c) were created holy and sinned later.
- ___ 17) Christ died for a) those who would afterwards believe on Him b) all men c) only the chosen children of God.
- ___ 18) We know that a) Scripture doesn't tell us what happens to babies who die before Baptism b) unbaptized babies are saved c) unbaptized babies are lost.

- ___19) Christ's state of humiliation begins with a) His suffering and death b) His being conceived by the Holy Ghost c) His birth.
- ___20) When I die my soul will a) go to Heaven to be with Christ b) sleep until Judgment Day, then go to heaven c) go to a place where sins are cleansed away by fire.
- ___21) To covet means a) to want something sinfully b) any kind of wanting c) to want a thing and try hard to get it.
- ___22) The ninth and tenth commandments show that God is interested a) chiefly in our actions b) even in the desires in our hearts c) mostly in the things we say.
- ___23) The invisible creation of God was a) devils b) angels and devils c) angels.
- ___24) The commandment which really includes all the other commandments is the a) fourth b) first c) tenth.
- ___25) When Christ says "I am with you alway" He means He's with us according to a) both His human and divine natures b) His divine nature only c) His spirit but not His body.
- ___26) Christ's state of exaltation began with a) His ascension b) His resurrection c) His descent into Hell.
- ___27) The Bible contains a) 39 books b) 66 books c) 45 books.
- ___28) The Holy Christian Church is a) all those who belong to Christian congregations b) all believers in Jesus c) all adult Christians.
- ___29) Some people who hear the Gospel are damned because a) they resist the work of the Holy Spirit b) they try to do good works c) they don't do any good works.
- ___30) We don't have to offer sacrifice for sins because a) God never liked sacrifices b) sins don't ever have to be paid for c) Christ was the Sacrifice for all our sins.
- ___31) The Law brings us to Christ by a) teaching us that Christ died for all men's sins b) showing us our sins and how much we need help c) giving us God's will so we can do it.
- ___32) Many men have never heard of Christ. This means a) that they can keep only a few commandments if they try b) that they can keep all the commandments if they try very hard c) that they can't keep any of the commandments.

- ___33) You are saved by a) what you do; it's not what you believe that counts b) the church you belong to; it's not what you do that counts c) what you believe; it's not what you do that counts.
- ___34) We should obey our parents because a) God wants us to accept them as His representatives b) someday they'll be old and we'll be sorry if we didn't honor them c) they're always right when they tell us what to do.
- ___35) The angels a) can sin but don't want to because they love God b) aren't able to sin c) sin daily, but are forgiven.
- ___36) The Law is the teaching that a) God wants us to do what is right and avoid what is wrong b) Jesus died for our sins c) Moses broke two stone tables.
- ___37) The command "baptize" means we must a) submerge in water b) apply water c) bathe in water.
- ___38) Christ had to be man so that He could a) show us the value of poverty b) redeem us c) show us how to live.
- ___39) We can't count the people in the Holy Christian Church because a) the Church is spread too far throughout the world b) no census of the Church has been taken c) we can't see the faith in men's hearts which makes them members.
- ___40) For us, the Third Commandment means we should a) study God's Word b) rest on Sunday instead of Saturday c) study God's Word on Sunday instead of on other days.
- ___41) The Gospel teaches that a) if we do right, God will reward us b) Jesus died for our sins c) if we do wrong, God will punish us.
- ___42) When we call the Bible God's Word, we mean that it was written a) directly by God b) by God through men c) by men who thought a great deal about God.
- ___43) We Christians don't want to sin because a) we're afraid of God's punishments b) it isn't really fun to sin c) we love God and want to please Him.
- ___44) One way to distinguish the Father from the Son is a) the Son is begotten of the Holy Ghost from eternity, but the Father isn't b) there is no way to distinguish them; both are the same c) the Father has begotten the Son from eternity while the Son is begotten of the Father.

- 45) The most important qualification to consider when picking Baptismal sponsors is a) that they will love the child b) that they agree to accept the responsibilities of sponsors c) that they be strong Christians.
- 46) It is good to swear when a) we need to do it to help our neighbor b) someone thinks we're telling a lie c) we're sure God will let us repent.
- 47) The Old Testament teaches a) only Law b) Law and Gospel c) only Gospel.
- 48) The teaching that the husband is the head of the home is a) a good old custom b) old fashioned and may well be discarded c) Scriptural.
- 49) The particular work of the Father is a) creation b) redemption c) sanctification.
- 50) When we pray we can use a) only prayers we have learned from Scripture b) only prayers in Scripture and the Catechism c) prayers we have learned and prayers we make ourselves.
- 51) I do good works because a) I try very hard to be good b) God's Law forces me to obey c) the Holy Spirit gives me the power.
- 52) Communion of saints means a) all those who are in Heaven b) all believers in Christ c) people who have tried to live right on earth.
- 53) Man was created a) in God's image and still has it b) in God's image but lost it c) without God's image, since no person can look like God.
- 54) When a baby is born into the world it is a) not sinful until it first does something wrong b) neither sinful nor good but always learns to sin soon c) sinful and needs Christ.
- 55) The image of God means a) perfect sinlessness b) looking just like God c) thinking the way God thinks.
- 56) God created and preserves me because a) He loves me b) I'm good c) I deserve his help.
- 57) When we say "Baptism is a Means of Grace" we mean a) that Baptism is a good way of initiating people into the congregation b) that the Holy Ghost works on us through Baptism c) chiefly that Baptism reminds us again and again of God's grace.

- ___58) If you find some lost article that isn't yours a) try to find the owner b) you may keep it-finders keepers c) leave it where it is.
- ___59) Baptism should be performed a) usually by pastors, in emergency by any Christian b) usually by Christian laymen, sometimes by unbelievers c) only by pastors who have studied the subject.
- ___60) When Jesus eats He is acting according to His a) divine nature b) spiritual nature c) human nature.
- ___61) By nature man. a) can keep only a part of God's Law b) can't keep God's Law at all c) can keep most of the Law if he really tries.
- ___62) In Christ a) the soul is God and the body is man b) the human and divine natures are united c) the spirit is divine, the flesh human.
- ___63) We are saved by a) trying hard to please God b) faith in Christ c) the Bible only.
- ___64) In the fifth commandment God forbids a) killing by anyone, even the government b) killing animals c) hating people.
- ___65) Swearing means a) saying words which God has forbidden us to use b) asking God to be a witness that what we say is true c) wishing that God would punish someone else.
- ___66) We need to use the Bible often because a) God will be angry with us if we don't b) God will reward us with temporal gifts for reading His Word c) through it the Holy Spirit works faith in us.
- ___67) The power in Baptism comes from a) the faith of the person baptized b) the pastor c) God's Word.
- ___68) False witnesses in the eighth commandment are a) all those who speak evil of others b) only found in courts c) those who refuse to confess to the charge of theft.
- ___69) Without being baptized a) no one may be saved b) only babies can be saved c) those who believe in Christ may be saved.
- ___70) The name Christ means a) the Son of God b) the Anointed One c) the Savior.
- ___71) To love God above all things means a) to think so much of God that we spend little time with people b) to bow when we hear God's name c) to live for God.

- ___72) The best source of help to lead a clean life is a) firm resolutions b) strong will-power c) God's Word.
- ___73) According to the Bible a man who murders should a) be put to death b) be punished in some way c) be put into prison.
- ___74) We can expect members of the Holy Christian Church to be found a) wherever the Gospel is preached b) wherever people worship a god c) wherever the Law is preached.
- ___75) Creeds are a) very useful as a statement of what we believe b) very useful if we don't take them too seriously c) bad for religion because we believe in deeds, not creeds.
- ___76) We should pray for a) chiefly temporal blessings b) spiritual blessings alone c) temporal and spiritual blessings.
- ___77) God made all things by a) angel-helpers b) His Word c) forming them out of clay.
- ___78) We pray because a) God will punish us if we don't b) prayer puts us into a confident frame of mind c) we need God's gifts.
- ___79) Jesus descended into hell a) to suffer there for the sins of the world b) to show Himself Victor over the devil c) to be damned for us.
- ___80) We know that all babies should be baptized because a) Christ actually says, "Baptize all infants" b) it's best not to take chances c) they are included in the command, "Baptize all nations".
- ___81) I can know that there is a God a) only by reading the Bible b) because my conscience tells me He exists c) only because my parents tell me He exists.
- ___82) When we say Jesus sits at the right hand of God we mean a) that He's in heaven b) He's on a throne at God's right hand c) He rules all things.
- ___83) When we are asked whether we are going to heaven we a) can't ever be sure b) can only hope so c) can answer "yes", certainly".
- ___84) If anyone wanted to hold church services on Friday a) it would be wrong because God wants us to worship on Sunday b) it would be all right c) we could prove him wrong from the Bible.
- ___85) At the end of the world a) Christ will judge all people b) there will be a thousand years of peace c) a huge battle will take place.

- ___86) We should worship God and hear His Word because a) if we don't God will punish us b) it's good to know what's right and wrong c) we need God's Word.
- ___87) The Holy Ghost works a) whenever I want Him to work b) when I hear the Gospel c) when I think about God's Law.
- ___88) Our Redeemer had to be God so that a) His death would be enough payment for the sins of the world b) He could raise people from the dead c) He could correct the errors of the Pharisees.
- ___89) God punishes people for every sin they commit a) only if they are Christians b) without distinction, whether they are Christians or unbelievers c) only if they are unbelievers.
- ___90) Praying in Jesus' name means asking God to answer our prayer because a) Jesus' name can work miracles b) Jesus paid for our sins c) we shouldn't talk directly to the Father.
- ___91) We should keep God's Law because a) we love God above all things b) He'll punish us if we break too many commandments c) in the long run, it's the best policy to do what is right.
- ___92) The Father is a) God, greater than the Son and the Holy Ghost b) God, equal with the Son and the Holy Ghost c) greater than the Son, but equal with the Holy Ghost.
- ___93) God wants us to keep His commandments a) perfectly, even in our thoughts b) just as well as we can c) only when we can see it's the right thing to do.
- ___94) Christ's body a) left Him at the resurrection b) left Him when He ascended into Heaven c) is still with Him wherever He is.
- ___95) The best way to find out what God is like is a) to study all He made in nature b) to pray c) to read the Bible.
- ___96) God answers a) all proper prayers b) the prayers He has time to answer c) most prayers.
- ___97) A very humiliating experience for Christ was a) His birth as a man b) His descent into hell c) His feeding of the 5,000.
- ___98) The doctrines taught in our Small Catechism come a) from Dr. Martin Luther b) from some holy ancient writers whose names we don't know c) from the Bible.

___99) "If it be Thy will" should be a part of all prayers for
a) bodily, temporal blessings b) spiritual blessings
c) any blessing.

___100) God protects me from a) some dangers but not all b) all
bodily harm c) every real danger and all evil.

Now check your work carefully to make sure you haven't left any of the
spaces blank. When your teacher collects the tests every space should
be filled.

FREQUENCY DISTRIBUTION I

PRELIMINARY TEST

II-YEAR CLASS IN RELIGIOUS EDUCATION, CONCORDIA SEMINARY,

ST. LOUIS, MISSOURI

| Raw Score | f | d | fd |
|-----------|---|-----|-----|
| 117 | 1 | 7 | 7 |
| 116 | 3 | 6 | 18 |
| 115 | 1 | 5 | 5 |
| 114 | 2 | 4 | 8 |
| 113 | 5 | 3 | 15 |
| 112 | 5 | 2 | 10 |
| 111 | 5 | 1 | 5 |
| 110 | 2 | 0 | 0 |
| 109 | 1 | -1 | -1 |
| 108 | 2 | -2 | -4 |
| 107 | 0 | -3 | 0 |
| 106 | 2 | -4 | -8 |
| 105 | 4 | -5 | -20 |
| 104 | 1 | -6 | -6 |
| 103 | 3 | -7 | -21 |
| 102 | 0 | -8 | 0 |
| 101 | 0 | -9 | 0 |
| 100 | 1 | -10 | -10 |
| 99 | 0 | -11 | 0 |
| 98 | 0 | -12 | 0 |
| 97 | 1 | -13 | -13 |
| 96 | 0 | -14 | 0 |
| 95 | 1 | -15 | -15 |

 $(\Sigma = -30)$ $N = 40$

Mean: 109.25

Median: 110.4

FREQUENCY DISTRIBUTION II

PRELIMINARY TEST

GRADES SIX, SEVEN, AND EIGHT, CONCORDIA LUTHERAN SCHOOL,
MAPLEWOOD, MISSOURI

| Raw Score | <u>Grade 6</u> | | | | <u>Grade 7</u> | | | | <u>Grade 8</u> | | | |
|-----------|----------------|----|----|-----------------|----------------|-----|-----|-----------------|----------------|-----|-----|-----------------|
| | f | f | fd | fd ² | f | d | fd | fd ² | f | d | fd | fd ² |
| 111-113 | 0 | | | | | | | | 1 | 7 | 7 | 48 |
| 108-110 | 0 | | | | | | | | 1 | 6 | 6 | 36 |
| 105-107 | 0 | | | | | | | | 2 | 5 | 10 | 50 |
| 102-104 | 0 | | | | 1 | 7 | 7 | 49 | 0 | 4 | 0 | 0 |
| 99-101 | 0 | | | | 1 | 6 | 6 | 36 | 3 | 3 | 9 | 27 |
| 96-98 | 0 | | | | 2 | 5 | 10 | 50 | 2 | 2 | 4 | 8 |
| 93-95 | 2 | 4 | 8 | 32 | 1 | 4 | 4 | 16 | 4 | 1 | 4 | 4 |
| 90-92 | 1 | 3 | 3 | 9 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 |
| 87-89 | 3 | 2 | 6 | 12 | 1 | 2 | 2 | 4 | 4 | -1 | -4 | 4 |
| 84-86 | 4 | 1 | 4 | 4 | 0 | 1 | 0 | 0 | 0 | -2 | 0 | 0 |
| 81-83 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | -3 | 0 | 0 |
| 78-80 | 2 | -1 | -2 | 2 | 1 | -1 | -1 | 1 | 2 | -4 | -8 | 32 |
| 75-77 | 0 | -2 | 0 | 0 | 1 | -2 | -2 | 4 | 0 | -5 | 0 | 0 |
| 72-74 | 2 | -3 | -6 | 18 | 0 | -3 | 0 | 0 | 0 | -6 | 0 | 0 |
| 69-71 | 0 | -4 | 0 | 0 | 0 | -4 | 0 | 0 | 0 | -7 | 0 | 0 |
| 66-68 | 1 | -5 | -5 | 25 | 0 | -5 | 0 | 0 | 0 | -8 | 0 | 0 |
| 63-65 | 0 | -6 | 0 | 0 | 0 | -6 | 0 | 0 | 0 | -9 | 0 | 0 |
| 60-62 | 0 | -7 | 0 | 0 | 0 | -7 | 0 | 0 | 0 | -10 | 0 | 0 |
| 57-59 | 1 | -8 | -8 | 64 | 0 | -8 | 0 | 0 | 0 | -11 | 0 | 0 |
| 54-56 | 0 | | | | 0 | -9 | 0 | 0 | 0 | -12 | 0 | 0 |
| 51-53 | 0 | | | | 1 | -10 | -10 | 100 | 0 | -13 | 0 | 0 |
| 48-50 | 0 | | | | 0 | -11 | 0 | 0 | 1 | -14 | -14 | 196 |
| 45-47 | 0 | | | | 1 | -12 | -12 | 144 | | | | |

Grade 6
N = 21
Mean: 82
Median: 83.2
S.D.: 2.81
 $\Sigma fd = 0$
 $\Sigma fd^2 = 166$

Grade 7
N = 15
Mean: 82.78
Median: 82.60
S.D.: 5.18
 $\Sigma fd = 4$
 $\Sigma fd^2 = 404$

Grade 8
N = 23
Mean: 92.83
Median: 93.63
S.D.: 4.15
 $\Sigma fd = 14$
 $\Sigma fd^2 = 406$

FREQUENCY DISTRIBUTION III
LEVEL OF DIFFICULTY OF QUESTIONS FOR

FINAL TEST

| Number of children missing the item | f - number of items missed | of | % of total | Fewer than —% of all pupils missed |
|-------------------------------------|----------------------------|-----|------------------|------------------------------------|
| 51-53 | 1 | 100 | | |
| 48-50 | 0 | 99 | 99 | 49 |
| 45-47 | 1 | 99 | | |
| 42-44 | 1 | 98 | | |
| 39-41 | 0 | 97 | | |
| 36-38 | 2 | 97 | | |
| 33-35 | 1 | 95 | | |
| 30-32 | 1 | 94 | | |
| 27-29 | 5 | 93 | 90 | 46 |
| 24-26 | 10 | 88 | 80 | |
| 21-23 | 10 | 78 | 70 ⁷⁵ | 40 |
| 18-20 | 5 | 68 | | |
| 15-17 | 8 | 63 | 60 | |
| 12-14 | 11 | 55 | 50 | 22 |
| 9-11 | 9 | 44 | 40 | |
| 6-8 | 8 | 35 | 30 | |
| 3-5 | 15 | 27 | 25 | 8.5 |
| 0-2 | 12 | 12 | 10 | |

N = 100

Mean: 14.74
 Median: 13.14

FREQUENCY DISTRIBUTION IV
SCORES IN FIRST SAMPLING DISTRIBUTED BY GRADE-LEVEL
AND AGE-LEVEL

| SCORE | Age: | GRADE: EIGHT | | | | Un- known Age | To- tal | SEVEN | | | To- tal | NINE 1 | |
|--------|------|--------------|----|----|----|---------------------|------------|-------|----|----|------------|--------|--------|
| | | 13 | 14 | 15 | 16 | | | 12 | 13 | 14 | | | |
| 98-100 | | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95- 97 | | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 92- 94 | | 11 | 2 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 |
| 89- 91 | | 23 | 6 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 |
| 86- 88 | | 17 | 7 | 1 | 0 | 1 | 26 | 2 | 0 | 0 | 2 | 0 | 0 |
| 83- 85 | | 27 | 17 | 1 | 1 | 0 | 46 | 2 | 0 | 0 | 2 | 0 | 1 (14) |
| 80- 82 | | 22 | 6 | 0 | 0 | 0 | 28 | 0 | 1 | 0 | 1 | 0 | 0 |
| 77- 79 | | 9 | 8 | 1 | 0 | 0 | 18 | 0 | 1 | 0 | 1 | 0 | 0 |
| 74- 76 | | 12 | 7 | 0 | 0 | 0 | 19 | 0 | 3 | 0 | 3 | 0(13) | 1 (13) |
| 71- 73 | | 4 | 6 | 2 | 1 | 0 | 13 | 0 | 2 | 0 | 2 | 2(14) | 0 |
| 68- 80 | | 9 | 5 | 0 | 0 | 1(8) | 15 | 0 | 0 | 0 | 0 | 0 | 2 (13) |
| 65- 67 | | 6 | 4 | 1 | 1 | 0 | 12 | 0 | 1 | 1 | 2 | 0 | 0 |
| 62- 64 | | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 59- 61 | | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 56- 58 | | 2 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |

TOTALS: 149 70 7 3 2 231 4 8 1 13 2 4
 N= 250

Note: Numbers in parentheses in unknown columns are grade or age.

Summary:

| | | | | | |
|---------------------|-----------|--------------|---------------------|-----------|-------------|
| Grade eight: | N= | Mean: | Grade seven: | N= | Mean |
| 13 years | 149 | 81.99 | 12 years | 4 | 85.5 |
| 14 | 70 | 79.92 | 13 years | 8 | 74.25 |
| 15 | 7 | 74.13 | 14 years | 1 | 66.00 |
| 16 | 3 | 74.00 | | | |
| Unknown age | 2 | 78.00 | | | |

Summary: eighth grade
 N= 231 Mean: 81.00

Summary: seventh grade
 N= 13 Mean: 77.08

| | | |
|--------------------|-----------|--------------|
| Grade nine: | N= | Mean: |
| 14 years | 1 | 72 |
| 13 years | 1 | 72 |

Summary: ninth grade
 N= 2 Mean: 72

FREQUENCY DISTRIBUTION V

SCORES IN FIRST SAMPLING WITH PERCENTILE RANKS

| <u>SCORE</u> | <u>f</u> | <u>of</u> | <u>Percentile Ranks</u> | |
|--------------|----------|-----------|-------------------------|-----------|
| 98-100 | 2 | 250 | | |
| 95- 97 | 3 | 248 | 97.00 | 99th |
| 92- 94 | 13 | 245 | 92.77 | 95th |
| 89- 91 | 29 | 232 | 88.18 90.78 | 80th 90th |
| 86- 88 | 28 | 203 | 85.50 87.16 | 70th 75th |
| 83- 85 | 49 | 175 | 82.39 83.97 | 50th 60th |
| 80- 82 | 29 | 126 | 79.81 | 40th |
| 77- 79 | 19 | 97 | | |
| 74- 76 | 23 | 78 | 72.68 76.11 | 25th 30th |
| 71- 73 | 17 | 55 | 72.06 | 20th |
| 68- 70 | 17 | 38 | 68.20 | 10th |
| 65- 67 | 14 | 21 | | |
| 62- 64 | 2 | 7 | | |
| 59- 61 | 2 | 5 | | |
| 56- 58 | 3 | 3 | | |

$R = 45$ $N = 250$

Mean: 80.60

FREQUENCY DISTRIBUTION VI

SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING TO SEX

| SCORE | BOYS | | | GIRLS | | |
|--------|------------------------------|----|----------------|------------------------------|----|---------------|
| | f | d | fd | f | d | fd |
| 95-100 | 1 | 6 | 6 | 1 | 6 | 6 |
| 95-97 | 1 | 5 | 5 | 2 | 5 | 10 |
| 92-94 | 6 | 4 | 24 | 7 | 4 | 28 |
| 89-91 | 11 | 3 | 33 | 18 | 3 | 54 |
| 86-88 | 14 | 2 | 28 | 14 | 2 | 28 |
| 83-85 | 20 | 1 | 20 | 29 | 1 | 29 |
| 80-82 | 16 | 0 | 0 | 13 | 0 | 0 |
| 77-79 | 8 | -1 | -8 | 11 | -1 | -11 |
| 74-76 | 13 | -2 | -26 | 10 | -2 | -20 |
| 71-73 | 12 | -3 | -36 | 5 | -3 | -15 |
| 68-70 | 9 | -4 | -36 | 8 | -4 | -32 |
| 65-67 | 8 | -5 | -40 | 6 | -5 | -30 |
| 62-64 | 0 | -6 | 0 | 2 | -6 | -12 |
| 59-61 | 2 | -7 | -14 | 0 | -7 | 0 |
| 56-58 | 1 | -8 | -8 | 2 | -8 | -16 |
| | | | $\Sigma = -52$ | | | $\Sigma = 19$ |
| | $N = 122$ | | | $N = 128$ | | |
| | Mean: 79.92 | | | Mean: 81.44 | | |
| | S.D.: 8.388 | | | S.D.: 8.385 | | |
| | Estimated S.D. of Mean: .769 | | | Estimated S.D. of Mean: .744 | | |

FREQUENCY DISTRIBUTION VII
SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING
TO TYPE OF SCHOOLING

| <u>SCORE</u> | <u>PAROCHIAL</u> | <u>ONCE PAROCHIAL</u> | <u>NEVER PAROCHIAL</u> |
|--------------|------------------|-----------------------|------------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| 98-99 | 2 | 0 | 0 |
| 96-97 | 1 | 0 | 0 |
| 94-95 | 5 | 0 | 0 |
| 92-93 | 9 | 0 | 1 |
| 90-91 | 19 | 1 | 1 |
| 88-89 | 18 | 1 | 1 |
| 86-87 | 14 | 0 | 3 |
| 84-85 | 33 | 1 | 1 |
| 82-83 | 20 | 0 | 2 |
| 80-81 | 17 | 1 | 2 |
| 78-79 | 5 | 1 | 2 |
| 76-77 | 20 | 0 | 0 |
| 74-75 | 10 | 2 | 2 |
| 72-73 | 11 | 1 | 2 |
| 70-71 | 7 | 1 | 2 |
| 68-69 | 8 | 0 | 2 |
| 66-67 | 8 | 0 | 1 |
| 64-65 | 5 | 0 | 1 |
| 62-63 | 1 | 0 | 0 |
| 60-61 | 1 | 0 | 0 |
| 58-59 | 1 | 1 | 0 |
| 56-57 | 1 | 0 | 1 |

N= 216
Mean: 81.1

N= 10
Mean: 77.3

N= 24
Mean: 77.42

FREQUENCY DISTRIBUTION VIII
SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING
TO FREQUENCY IN CHURCH ATTENDANCE

| <u>SCORE</u> | <u>WEEKLY</u> | <u>OFTEN</u> | <u>NOT OFTEN</u> |
|--------------|---------------|--------------|------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| 98-100 | 2 | 0 | 0 |
| 97- 97 | 2 | 1 | 0 |
| 92- 94 | 12 | 1 | 0 |
| 89- 91 | 23 | 5 | 0 |
| 86- 88 | 24 | 3 | 1 |
| 83- 85 | 39 | 9 | 1 |
| 80- 82 | 20 | 9 | 0 |
| 77- 79 | 13 | 6 | 0 |
| 74- 76 | 18 | 4 | 1 |
| 71- 73 | 10 | 6 | 1 |
| 68- 70 | 12 | 4 | 1 |
| 65- 67 | 9 | 4 | 1 |
| 62- 64 | 2 | 0 | 0 |
| 59- 61 | 0 | 1 | 1 |
| 56- 58 | 2 | 1 | 0 |

N= 188
Mean: 81.40

N= 54
Mean: 78.57

N= 7
Mean: 72.87

FREQUENCY DISTRIBUTION IX

SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING
TO FREQUENCY IN SUNDAY SCHOOL ATTENDANCE

| <u>SCORE</u> | <u>WEEKLY</u> | <u>OFTEN</u> | <u>NOT OFTEN</u> |
|--------------|---------------|--------------|------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| 98-100 | 1 | 0 | 0 |
| 95- 97 | 3 | 0 | 0 |
| 92- 94 | 13 | 0 | 0 |
| 89- 91 | 22 | 7 | 0 |
| 86- 88 | 24 | 4 | 0 |
| 83- 85 | 35 | 8 | 6 |
| 80- 82 | 21 | 2 | 6 |
| 77- 79 | 12 | 7 | 0 |
| 74- 76 | 18 | 3 | 2 |
| 71- 73 | 11 | 6 | 0 |
| 68- 70 | 10 | 4 | 3 |
| 65- 67 | 11 | 2 | 1 |
| 62- 64 | 2 | 0 | 0 |
| 59- 61 | 0 | 1 | 1 |
| 56- 58 | 2 | 1 | 0 |

$N= 185$
Mean: 83.92

$N= 45$
Mean: 78.66

$N= 19$
Mean: 77.37

FREQUENCY DISTRIBUTION X

SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING
TO LENGTH OF TIME SPENT IN CONFIRMATION CLASSES

| <u>SCORE</u> | <u>TWO YEARS</u> | <u>ONE YEAR</u> | <u>LESS</u> |
|--------------|------------------|-----------------|-------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| 98-100 | 0 | 2 | 0 |
| 95- 97 | 0 | 3 | 0 |
| 92- 94 | 4 | 8 | 0 |
| 89- 91 | 8 | 20 | 1 |
| 86- 88 | 11 | 14 | 3 |
| 83- 85 | 20 | 28 | 1 |
| 80- 82 | 16 | 13 | 0 |
| 77- 79 | 7 | 12 | 0 |
| 74- 76 | 14 | 8 | 1 |
| 71- 73 | 10 | 6 | 1 |
| 68- 70 | 9 | 7 | 0 |
| 65- 67 | 10 | 3 | 1 |
| 62- 64 | 1 | 1 | 0 |
| 59- 61 | 0 | 2 | 0 |
| 56- 58 | 2 | 1 | 0 |

N= 112

Mean: 78.54

N= 128

Mean: 82.36

N= 8

Mean: 81.00

* The parochial school, the Sunday school, and the church services were the three agencies included in this distribution. If a pupil was attending parochial school, present at Sunday school weekly, and received church services weekly, his score was placed in the "three" column. If he attended only two agencies as fully as possible, his score was placed in the "two" column, etc.

FREQUENCY DISTRIBUTION XI
SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING
TO THE NUMBER OF RELIGIOUS EDUCATION AGENCIES
UTILIZED AS FULLY AS POSSIBLE

| <u>SCORE</u> | <u>THREE*</u> | <u>TWO*</u> | <u>ONE*</u> |
|--------------|------------------------------|-----------------------------|-----------------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| 98-100 | 1 | 1 | 0 |
| 95- 97 | 2 | 1 | 0 |
| 92- 94 | 11 | 2 | 0 |
| 89- 91 | 19 | 7 | 2 |
| 86- 88 | 18 | 7 | 3 |
| 83- 85 | 31 | 9 | 9 |
| 80- 82 | 14 | 9 | 6 |
| 77- 79 | 9 | 6 | 3 |
| 74- 76 | 13 | 6 | 4 |
| 71- 73 | 6 | 6 | 4 |
| 68- 70 | 6 | 5 | 6 |
| 65- 67 | 8 | 2 | 4 |
| 62- 64 | 2 | 0 | 0 |
| 59- 61 | 0 | 0 | 2 |
| 56- 58 | 0 | 2 | 1 |
| | N= 140 Mean: 82.18 | N= 63 Mean: 80.97 | N= 44 Mean: 76.35 |

* The parochial school, the Sunday school, and the church service were the three agencies included in this distribution. If a pupil was attending parochial school, present at Sunday school weekly, and present at church services weekly, his score was placed in the "three" column. If he utilized only two agencies as fully as possible, his score was placed in the "two" column, etc.

FREQUENCY DISTRIBUTION XII
SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING TO
FREQUENCY OF PARENTS' CHURCH ATTENDANCE

| <u>SCORE</u> | <u>WEEKLY</u> | <u>OFTEN</u> | <u>NOT OFTEN</u> |
|--------------|--------------------|--------------------|--------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| 98-100 | 2 | 0 | 0 |
| 95- 97 | 3 | 0 | 0 |
| 92- 94 | 10 | 1 | 2 |
| 89- 91 | 19 | 8 | 2 |
| 86- 88 | 15 | 5 | 3 |
| 83- 85 | 30 | 10 | 9 |
| 80- 82 | 12 | 12 | 6 |
| 77- 79 | 5 | 8 | 5 |
| 74- 76 | 9 | 7 | 7 |
| 71- 73 | 8 | 5 | 4 |
| 68- 70 | 6 | 5 | 6 |
| 65- 67 | 9 | 2 | 2 |
| 62- 64 | 1 | 0 | 1 |
| 59- 61 | 0 | 1 | 1 |
| 56- 58 | 1 | 2 | 0 |
| | N= 130 | N= 66 | N= 53 |
| | Mean: 82.25 | Mean: 80.09 | Mean: 78.45 |

FREQUENCY DISTRIBUTION XIII

SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING TO THE
DENOMINATIONAL BACKGROUND OF PARENTS

| <u>SCORE</u> | <u>f</u> | <u>f</u> | <u>f</u> |
|--------------|----------------------|---------------------|-------------------------|
| | <u>BOTH LUTHERAN</u> | <u>ONE LUTHERAN</u> | <u>NEITHER LUTHERAN</u> |
| 98-100 | 1 | 1 | 0 |
| 95- 97 | 3 | 0 | 0 |
| 92- 94 | 10 | 2 | 1 |
| 89- 91 | 24 | 4 | 1 |
| 86- 88 | 22 | 3 | 5 |
| 83- 85 | 33 | 13 | 3 |
| 80- 82 | 22 | 3 | 3 |
| 77- 79 | 12 | 4 | 2 |
| 74- 76 | 16 | 4 | 3 |
| 71- 73 | 9 | 6 | 2 |
| 68- 70 | 10 | 5 | 2 |
| 65- 67 | 6 | 7 | 1 |
| 62- 64 | 1 | 1 | 0 |
| 59- 61 | 1 | 0 | 1 |
| 56- 58 | 2 | 1 | 0 |

N= 172
Mean: 81.70

N= 54
Mean 78.00

N= 24
Mean: 79.33

FREQUENCY DISTRIBUTION XIV

SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING TO WHETHER
OR NOT FAMILY DEVOTIONS WERE HELD IN THE PUPILS' HOMES

| <u>SCORE</u> | <u>YES</u> | <u>NO</u> |
|--------------|------------|-----------|
| | <u>f</u> | <u>f</u> |
| 98-100 | 2 | 0 |
| 95- 97 | 2 | 1 |
| 92- 94 | 3 | 10 |
| 89- 91 | 10 | 19 |
| 86- 88 | 14 | 14 |
| 83- 85 | 25 | 24 |
| 80- 82 | 13 | 16 |
| 77- 79 | 12 | 6 |
| 74- 76 | 11 | 12 |
| 71- 73 | 7 | 10 |
| 68- 70 | 8 | 9 |
| 65- 67 | 6 | 8 |
| 62- 64 | 1 | 1 |
| 59- 61 | 0 | 2 |
| 56- 58 | 1 | 2 |

N= 115
Mean: 80.64

N= 134
Mean: 80.60

FREQUENCY DISTRIBUTION XV

SCORES IN FIRST SAMPLING DISTRIBUTED ACCORDING TO
WHETHER OR NOT CHILD WAS LIVING WITH BOTH PARENTS

| <u>SCORES</u> | <u>BOTH</u> | <u>ONE</u> |
|---------------|--------------------|--------------------|
| | <u>f</u> | <u>f</u> |
| 98-100 | 2 | 0 |
| 95- 97 | 3 | 0 |
| 92- 94 | 12 | 1 |
| 89- 91 | 27 | 2 |
| 86- 88 | 25 | 3 |
| 83- 85 | 39 | 10 |
| 80- 82 | 27 | 2 |
| 77- 79 | 16 | 3 |
| 74- 76 | 20 | 3 |
| 71- 73 | 14 | 3 |
| 68- 70 | 16 | 1 |
| 65- 67 | 12 | 2 |
| 62- 64 | 2 | 0 |
| 59- 61 | 2 | 0 |
| 56- 58 | 3 | 0 |
| | N= 220 | N= 30 |
| | Mean: 80.63 | Mean: 80.80 |

FREQUENCY DISTRIBUTION XVI
 SCORES IN BOTH SAMPLINGS OF THE CHILDREN PARTICIPATING
 IN THE SECOND SAMPLING

| <u>SCORES</u> | <u>First Scores</u> | <u>Second Scores</u> |
|----------------|---------------------|----------------------|
| | <u>f</u> | <u>f</u> |
| 98-100 | | 1 |
| 95- 97 | 3 | 7 |
| 92- 94 | 9 | 10 |
| 89- 91 | 19 | 17 |
| 86- 88 | 13 | 14 |
| 83- 85 | 27 | 16 |
| 80- 82 | 15 | 18 |
| 77- 79 | 10 | 11 |
| 74- 76 | 12 | 14 |
| 71- 73 | 7 | 3 |
| 68- 70 | 8 | 3 |
| 65- 67 | 6 | 6 |
| 62- 64 | 2 | 5 |
| 59- 61 | 0 | 0 |
| 56- 58 | 1 | 1 |
| 53- 55 | | 3 |
| 50- 52 | | 2 |
| (6 intervals 0 | | 0) |
| 32- 34 | | 1 |

N = 132
 Mean: 81.55

N = 132
 Mean: 80.658

FREQUENCY DISTRIBUTION XVII

DIFFERENCES BETWEEN THE TWO SCORES OF THE CHILDREN

PARTICIPATING IN THE SECOND SAMPLING

| <u>DIFFERENCE</u> | <u>f</u> |
|-------------------|----------|
| Positive | |
| 15-16 | 3 |
| 13-14 | 1 |
| 11-12 | 1 |
| 9-10 | 3 |
| 7-8 | 9 |
| 5-6 | 10 |
| 3-4 | 9 |
| 1-2 | 16 |
| Negative | |
| -1 - - 0 | 24 |
| -3 - - 2 | 21 |
| -5 - - 4 | 11 |
| -7 - - 6 | 5 |
| -9 - - 8 | 2 |
| -11 - -10 | 9 |
| -13 - -12 | 1 |
| -15 - -14 | 3 |
| -17 - -16 | 2 |
| -19 - -18 | 0 |
| -21 - -20 | 1 |
| -23 - -22 | 0 |
| -25 - -24 | 0 |
| -27 - -26 | 0 |
| -29 - -28 | 0 |
| -31 - -30 | 0 |
| -33 - -32 | 1 |

N = 132

N+ = 52

N- = 66

No = 14

Mean: -1.71

Median: -.67

FREQUENCY DISTRIBUTION XVIII

DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS
DISTRIBUTED ACCORDING TO TYPE OF ELEMENTARY SCHOOLING

| <u>SCORE</u> <u>DIFFERENCE</u> | <u>Parochial</u> | <u>Formerly</u> <u>Parochial</u> | <u>Never</u> <u>Parochial</u> |
|-----------------------------------|------------------|-------------------------------------|----------------------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| Positive | 3 | | |
| 15-16 | 1 | | |
| 13-14 | 0 | 1 | |
| 11-12 | 3 | 0 | |
| 9-10 | 7 | 0 | 2 |
| 7-8 | 8 | 1 | 1 |
| 5-6 | 9 | 0 | 0 |
| 3-4 | 15 | 0 | 1 |
| 1-2 | | | |
| Negative | | | |
| -1-0 | 18 | 2 | 3 |
| -3--2 | 20 | 1 | 0 |
| -5--4 | 10 | 0 | 1 |
| -7--6 | 4 | 0 | 1 |
| -9--8 | 1 | 0 | 1 |
| -11--10 | 6 | 2 | 1 |
| -13--12 | 2 | 0 | 0 |
| -15--14 | 2 | 0 | 1 |
| -17--16 | 2 | | |
| -19--18 | 0 | | |
| -21--20 | 1 | | |
| (5 intervals | 0) | | |
| -33--32 | 1 | | |
| N = 113 | | N = 7 | N = 12 |
| Mean: - .89 | | Mean: -1.072 | Mean: -2.00 |

FREQUENCY DISTRIBUTION XIX
DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS
DISTRIBUTED ACCORDING TO CHURCH ATTENDANCE HABITS

| <u>SCORE</u> <u>DIFFERENCE</u> | <u>Weekly</u> <u>f</u> | <u>Often</u> <u>f</u> | <u>Not</u> <u>Often</u> <u>f</u> |
|-----------------------------------|---------------------------|--------------------------|--|
| Positive | | | |
| 15-16 | 2 | 1 | |
| 13-14 | 0 | 1 | |
| 11-12 | 1 | 0 | |
| 9-10 | 2 | 1 | |
| 7-8 | 8 | 1 | |
| 5-6 | 9 | 1 | |
| 3-4 | 7 | 2 | |
| 1-2 | 15 | 2 | |
| Negative | | | |
| -1 - 0 | 22 | 2 | |
| -3 - -2 | 15 | 4 | 1 |
| -5 - -4 | 8 | 3 | |
| -7 - -6 | 5 | 0 | |
| -9 - -8 | 2 | 0 | |
| -11 - -10 | 7 | 2 | |
| -13 - -12 | 0 | 1 | |
| -15 - -14 | 3 | 0 | |
| -17 - -16 | 1 | 1 | |
| -19 - -18 | 0 | | |
| -21 - -20 | 1 | | |
| (5 intervals | 0) | | |
| -33 - -32 | 1 | | |
| | | | |
| | N = 109 | N = 22 | N = 1 |
| | Mean: - .922 | Mean: - .59 | Mean: -3. |

FREQUENCY DISTRIBUTION XX

DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS
DISTRIBUTED ACCORDING TO SUNDAY SCHOOL ATTENDANCE HABITS

| <u>SCORE</u> <u>DIFFERENCE</u> | <u>Weekly</u> | <u>Often</u> | <u>Not Often</u> |
|-----------------------------------|---------------|--------------|------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| Positive | | | |
| 15-16 | 2 | 1 | |
| 13-14 | 0 | 1 | |
| 11-12 | 1 | 0 | |
| 9-10 | 2 | 1 | |
| 7-8 | 9 | 0 | |
| 5-6 | 8 | 1 | 1 |
| 3-4 | 8 | 1 | 0 |
| 1-2 | 15 | 2 | 0 |
| Negative | | | |
| -1 - 0 | 23 | 1 | 0 |
| -3 - -2 | 14 | 4 | 1 |
| -5 - -4 | 8 | 2 | 1 |
| -7 - -6 | 5 | 0 | 0 |
| -9 - -8 | 2 | 0 | 0 |
| -11 - -10 | 8 | 1 | 0 |
| -13 - -12 | 0 | 1 | 0 |
| -15 - -14 | 3 | | |
| -17 - -16 | 2 | | |
| -19 - -18 | 0 | | |
| -21 - -20 | 1 | | |
| (5 intervals | 0) | | |
| -33 - -32 | 1 | | |
| | | | |
| | N = 112 | N = 16 | N = 3 |
| | Mean: -1.054 | Mean: .5 | Mean: 0 |

FREQUENCY DISTRIBUTION XXI

DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS

DISTRIBUTED ACCORDING TO TYPE OF SECONDARY SCHOOLING

| <u>SCORE</u> <u>DIFFERENCES</u> | <u>Lutheran High</u> | <u>Public High</u> |
|------------------------------------|----------------------|--------------------|
| | <u>f</u> | <u>f</u> |
| Positive | | |
| 15-16 | | 3 |
| 13-14 | | 1 |
| 11-12 | | 1 |
| 9-10 | 1 | 2 |
| 7-8 | 1 | 8 |
| 5-6 | 6 | 4 |
| 3-4 | 3 | 6 |
| 1-2 | 12 | 4 |
| Negative | | |
| -1 - 0 | 12 | 11 |
| -3 - -2 | 9 | 13 |
| -5 - -4 | 8 | 3 |
| -7 - -6 | 2 | 3 |
| -9 - -8 | 0 | 2 |
| -11 - -10 | 3 | 6 |
| -13 - -12 | 1 | 0 |
| -15 - -14 | 0 | 2 |
| -17 - -16 | 1 | 1 |
| -19 - -18 | | 0 |
| -21 - -20 | | 1 |
| (5 intervals | | 0) |
| -33 - -32 | | 1 |
| | N = 59 | N = 72 |
| | Mean = -1.008 | Mean = .666 |

FREQUENCY DISTRIBUTION XXII

DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS

DISTRIBUTED ACCORDING TO NUMBER OF EDUCATIONAL AGENCIES

UTILIZED FULLY*

| <u>SCORE</u> <u>DIFFERENCES</u> | AAAA | AAA | AA | A |
|------------------------------------|------|-----|----|---|
| | f | f | f | f |
| Positive | | | | |
| 15-16 | | 2 | | 1 |
| 13-14 | | 0 | | 1 |
| 11-12 | | 0 | 1 | 0 |
| 9-10 | 1 | 0 | 1 | 1 |
| 7-8 | 1 | 5 | 1 | 1 |
| 5-6 | 3 | 6 | 1 | 0 |
| 3-4 | 2 | 5 | 2 | 0 |
| 1-2 | 10 | 4 | 1 | 1 |
| Negative | | | | |
| -1 - 0 | 10 | 8 | 6 | 0 |
| -3 - -2 | 6 | 9 | 3 | 2 |
| -5 - -4 | 6 | 1 | 3 | 1 |
| -7 - -6 | 2 | 2 | 1 | 0 |
| -9 - -8 | 0 | 1 | 1 | 0 |
| -11 - -10 | 2 | 4 | 1 | 2 |
| -13 - -12 | | 0 | 0 | 1 |
| -15 - -14 | | 2 | 1 | |
| -17 - -16 | | 2 | | |
| -19 - -18 | | 0 | | |
| -21 - -20 | | 1 | | |
| (5 intervals | | 0) | | |
| -33 - -32 | | 1 | | |

N = 43

Mean: -.594

N = 53

Mean: -1.556

N = 23

Mean: -.934

N = 11

Mean: 1.01

*AAAA column indicates frequency of score differences for all children who graduated from parochial schools, attended church services weekly, attended Sunday school weekly, and attended Lutheran High School. AAA indicates frequency of differences for those who fulfilled three of these qualifications, AA column for those who fulfilled two, and the A column for those who fulfilled one of the four qualifications.

FREQUENCY DISTRIBUTION XXIII

DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS
DISTRIBUTED ACCORDING TO PARENTS' CHURCH ATTENDANCE HABITS

| <u>SCORE</u> <u>DIFFERENCES</u> | <u>Weekly</u> | <u>Often</u> | <u>Not Often</u> |
|------------------------------------|---------------|--------------|------------------|
| | f | f | f |
| Positive | | | |
| 15-16 | 1 | 2 | |
| 13-14 | 7 | 0 | 1 |
| 11-12 | 0 | 1 | 0 |
| 9-10 | 1 | 2 | 0 |
| 7-8 | 5 | 2 | 2 |
| 5-6 | 6 | 1 | 3 |
| 3-4 | 4 | 2 | 3 |
| 1-2 | 13 | 2 | 1 |
| Negative | | | |
| -1-0 | 14 | 6 | 5 |
| -3--2 | 14 | 4 | 1 |
| -5--4 | 7 | 1 | 3 |
| -7--6 | 3 | 2 | 0 |
| -9--8 | 0 | 0 | 2 |
| -11--10 | 5 | 1 | 3 |
| -13--12 | 1 | 0 | 0 |
| -15--14 | 1 | 1 | 1 |
| -17--16 | 1 | 0 | 1 |
| -19--18 | 0 | 0 | |
| -22--20 | 0 | 1 | |
| (5 intervals | 0) | | |
| -33--32 | 1 | | |
| <hr/> | | | |
| | N = 77 | N = 28 | N = 26 |
| | Mean: -1.174 | Mean: .572 | Mean: -1.576 |

FREQUENCY DISTRIBUTION XXIV

DIFFERENCES BETWEEN SCORES OF CHILDREN IN BOTH SAMPLINGS
DISTRIBUTED ACCORDING TO PARENTS' RELIGIOUS AFFILIATIONS

| <u>SCORE</u> <u>DIFFERENCES</u> | <u>Both</u> <u>Lutheran</u> | <u>One</u> <u>Lutheran</u> | <u>Neither</u> <u>Lutheran</u> |
|------------------------------------|--------------------------------|-------------------------------|-----------------------------------|
| | <u>f</u> | <u>f</u> | <u>f</u> |
| Positive | | | |
| 15-16 | 3 | | |
| 13-14 | 0 | | 1 |
| 11-12 | 1 | | 0 |
| 9-10 | 3 | | 0 |
| 7-8 | 7 | 1 | 1 |
| 5-6 | 7 | 3 | 0 |
| 3-4 | 6 | 2 | 1 |
| 1-2 | 12 | 5 | 0 |
| Negative | | | |
| -1 - 0 | 21 | 2 | 2 |
| -3 - -2 | 15 | 4 | 1 |
| -5 - -4 | 6 | 3 | 2 |
| -7 - -6 | 5 | 0 | 0 |
| -9 - -8 | 0 | 1 | 1 |
| -11 - -10 | 7 | 2 | |
| -13 - -12 | 0 | 0 | |
| -15 - -14 | 2 | 1 | |
| -17 - -16 | 2 | | |
| -19 - -18 | 0 | | |
| -22 - -20 | 1 | | |
| (5 intervals | 0) | | |
| -33 - -32 | 1 | | |
| | N = 99 | N = 24 | N = 9 |
| | Mean: -.804 | Mean: -1.250 | Mean: .388 |

FRITZLAFF MEMORIAL LIBRARY
CONCORDIA SEMINARY
ST. LOUIS, MO.

FREQUENCY DISTRIBUTION XXV

DIFFERENCES BETWEEN THE SCORES OF CHILDREN IN BOTH SAMPLINGS

DISTRIBUTED ACCORDING TO WHETHER CHILD LIVED WITH ONE OR BOTH

PARENTS

| <u>SCORE</u> <u>DIFFERENCES</u> | <u>Both</u> | <u>One</u> |
|------------------------------------|-------------|------------|
| | <u>f</u> | <u>f</u> |
| Positive | 3 | |
| 15-16 | 1 | |
| 13-14 | 1 | |
| 11-12 | 2 | 1 |
| 9-10 | 9 | 0 |
| 7-8 | 9 | 1 |
| 5-6 | 7 | 2 |
| 3-4 | 15 | 2 |
| 1-2 | | |
| Negative | | |
| -1 - 0 | 24 | 0 |
| -3 - -2 | 19 | 1 |
| -5 - -4 | 8 | 3 |
| -7 - -6 | 5 | 0 |
| -9 - -8 | 1 | 1 |
| -11 - -10 | 8 | 1 |
| -13 - -12 | 1 | |
| -15 - -14 | 3 | |
| -17 - -16 | 2 | |
| -19 - -18 | 0 | |
| -22 - -20 | 1 | |
| (5 intervals | 0) | |
| -33 - -32 | 1 | |

N = 120
Mean: $-.884$

N = 12
Mean: $-.834$

APPENDIX I

FORMULA FOR SIGNIFICANCE OF THE DIFFERENCE BETWEEN
 STATES OF MIND FOR TWO YEARS, SEPARATELY, WITHIN

Significance Ratio (S)
 The smaller the value

$$= \sqrt{\frac{\frac{N_1 + N_2}{N_1 + N_2 - 2} + \frac{N_1 + N_2}{N_1 + N_2}}{N_1 + N_2}}$$

$$= \frac{10.00}{\sqrt{100.00}} = 1.00$$

$$= \frac{10.00}{\sqrt{2.00}}$$

APPENDIX D

FORMULA I AND II

Degree of Freedom = 1

At only 1 degree of freedom a ratio as large as 3.84 has a level
 of significance of 0.05. Therefore this level of 11 degrees is much
 higher than 0.05.

FORMULA I

FORMULA FOR SIGNIFICANCE OF THE DIFFERENCE BETWEEN
SCORES OF GRADES VII AND VIII, MAPLEWOOD, MISSOURI

$$\begin{aligned} \text{Significance Ratio (t)} \\ \text{for small samples} &= \frac{N_1 - N_2}{\sqrt{\left(\frac{N_1 S.D.^2_1 + N_2 S.D.^2_2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 N_2}\right)}} \\ &= \frac{10.05}{\sqrt{\left(\frac{800.94}{36}\right) \cdot .110}} = \frac{10.05}{\sqrt{2.45}} \\ &= 6.442 \end{aligned}$$

$$\text{Degrees of Freedom} = N_1 N_2 - 2 = 36$$

At only 30 degrees of freedom a ratio as large as 3.646 has a level of significance of 0.1%. Therefore this level at 36 degrees is much higher than 0.1%.

FORMULA II

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS
OF SCORES DISTRIBUTED ACCORDING TO SEX

Formula for standard deviation of difference between means
of two samples:

$$S.D. (M_1 - M_2) = \sqrt{S.D.^2_{M_1} + S.D.^2_{M_2}}$$

$$S.D._M \text{ (boys)} = .763; \quad S.D.^2_M \text{ (boys)} = .5821$$

$$S.D._M \text{ (girls)} = .744; \quad S.D.^2_M \text{ (girls)} = .5535$$

$$\begin{aligned} S.D. (M_1 - M_2) &= \sqrt{.5821 + .5535} \\ &= \sqrt{1.136} \\ &= 1.065 \end{aligned}$$

$$\text{Significance ratio of a difference} = \frac{x}{S.D. (M_1 - M_2)}$$

where x = difference in score units between the two
means; therefore, .

$$\text{Significance ratio} = \frac{1.72}{1.065} = 1.615 =$$

Level of confidence, 10.52%

BIBLIOGRAPHY

A Short Explanation of Dr. Martin Luther's Small Catechism, A Handbook of Christian Doctrine. St. Louis: Concordia Publishing House, 1943.

Trislot Concordia, "The Formula of Concord, Thorough Declaration".
St. Louis: Concordia Publishing House, 1921.

Grow, Lester D. and Grow, Alice. Educational Psychology.
New York: American Book Company, 1948.

Lindquist, E. F. A First Course in Statistics. Boston: Houghton Mifflin Co., 1942.