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The Effect of Increased Teacher Knowledge of Student Characteristics On Student Attitudes and Achievement

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Brigham Young University - Provo

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THE EFFECTS OF INCREASED TEACHER KNOWLEDGE
OF STUDENT CHARACTERISTICS ON STUDENT
ATTITUDES AND ACHIEVEMENT

A Thesis
Presented to the
Graduate Department of Education
Brigham Young University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Sherman D. Harward
August 1967
ACKNOWLEDGMENTS

The author wishes to express his gratitude to Dr. Edith Bauer, Committee Chairman, who has spent hours of her time to assist in the successful completion of this work. Her concern and suggestions have contributed immeasurably to the success of this undertaking. Drs. James R. Clark and Walter D. Bowen have assisted with many timely suggestions, and to James R. Baird, a friend and colleague, a special thanks is also given for his participation in the research phase of this study.

Each of the author's teachers have contributed to the knowledge and techniques used to complete this study.

To my wonderful wife and companion, Sarah, is extended the deep love and appreciation she has earned by her patience and understanding. She has been a constant source of encouragement when it was needed so much.
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The Problem

There is a destiny that makes us brothers, none goes his way alone. All that we send into the lives of others comes back into our own. --Anonymous

This sentiment is one which teachers need to be reminded of as they face the tremendous responsibility of meeting the individual needs of numerous students, since "It is the teacher who, in the final analysis, must make the adaptations of the classroom experiences to fit the ability level of the individual child (Mouly, 1961, p. 424)."

Teachers find themselves in an awesome position as they strive to adapt classroom experiences to the individual levels of numerous students who have varying aptitudes and levels of achievement, contrasting physical, social and emotional maturity, and differing backgrounds and attitudes. Arbuckle (1966) suggests that in view of this variety of problems it is quite impossible for school teachers to carry out their functions without the help of other specialized workers and that help is available through the guidance program in the form of the inventory and appraisal service which gathers and records information on individual students.

The value of supplying such information to teachers has been the subject of articles in various journals. However, only three previous research studies were found which examined the possible effects of teachers possessing a knowledge of students' backgrounds upon students' attitude and achievement.

Strang (1953) gives as the first commandment of teachers, "Know
thy students," because it is necessary to know each student if one is to meet his various needs. Wadsworth (1946) reports on the program in his school of gathering, summarizing, and placing in teachers' hands information on students' family, school, and social background. He reports that "There is no doubt that better teaching results from supplying teachers with pertinent facts about all their pupils.\(^\text{867}\)." Barry and Wolf (1957) report "The value of an information program needs attention at this time, particularly in terms of effects upon students.\(^\text{1397}\)." They state that some specific problems connected with information gathered on pupils "were uninterpreted or misinterpreted tests, records that were not used or which were inaccessible, and over-reliance upon information.\(^\text{1407}\)."

Research studies by Ojemann and Wilkinson (1939) and Hoyt (1955) report that more knowledge about individual students possessed and used by teachers resulted in higher achievement and better attitudes toward school and teachers.

**Purpose**

The major purpose of this study was to study the effects of increased teacher knowledge of students' individual characteristics on students' religious attitudes and achievement in Seminary.

**Hypotheses**

The following hypotheses were tested:

(1) There will be no significant difference in religious attitude between those students whose teachers have an increased knowledge of
individual students' characteristics and students whose teachers do not have this knowledge.

(2) There will be no significant difference in achievement in Seminary between students whose teachers have an increased knowledge of individual students' characteristics and those students whose teachers do not have this knowledge.

Definition of Terms

The Church. The Church of Jesus Christ of Latter-day Saints sometimes called Mormon or L.D.S. Church.

Inventory service. The guidance service which seeks to gather, record, and make available to teachers a history and appraisal of students' background, limitations, and strengths.

Student characteristics. Refers to the information obtained from the instruments and forms (Appendix B) completed by students, including information about (1) parents and siblings, (2) students' interests, (3) physical impairments, (4) attitude toward and observance of Church doctrines and practices, (5) self concept, and (6) social adjustment.

Church doctrines and practices. Those mainly considered were (1) tithing and donations, (2) attendance at church meetings, (3) missionary work, (4) sabbath day observance, (5) word of wisdom, having to do with foods and drinks good or harmful for man, (6) dating, (7) prayer, and (8) church welfare and work projects.

Seminaries. Those institutions made available by the Church to high school students for religious instruction and training in the Old Testament, New Testament, L.D.S. Church History and Doctrine, and Book
of Mormon. Throughout the Church these Seminaries are either release-time, wherein students are released from school one period per day to attend, or early morning in which cases students must attend prior to the beginning of the regular school day.

The Department of Seminaries. This term referred to the Department of Seminaries and Institutes of the Church which operates the religious education institutions of the Church.

Teacher S. Referred to the author who taught all classes during the first year of the study and four of the six classes during the second year.

Teacher J. Referred to a colleague who participated in the study during the second year and taught one experimental and one control class.

Review of Related Research

Ojemann and Wilkinson (1939) studied the effect of increasing teachers' understanding of individual pupils' behavior upon student learning and personality development. The subjects of their study were 66 students from a class of 135 ninth graders in an unspecified public school. The students were divided into two groups which were matched on chronological age, scores on the Otis Group Intelligence Test, and grade point average (GPA) for the previous year.

Comparisons were made between the two groups on change of attitude toward school and school work, extent of personality conflicts, school achievement, and general adjustment. Teachers of experimental subjects were given information about their personality, ambitions, home environment, and parents' attitudes. The investigator also gave each
teacher interpretations and suggestions for working with each member of
the experimental group. Teachers were asked to apply their knowledge in
planning daily work for the subjects and occasional visits were made to
the teacher by the investigator to discuss individual pupils' progress.
While this information and help was given teachers on experimental group
members, no information or help was furnished on members of the control
group.

A comparison of results showed significantly higher scores for
the experimental group on achievement, attitude toward school and school
work, and general adjustment with significantly lower scores on
personality conflicts. The critical ratios ranged from 3.43 to 4.94.
From these findings Ojemann and Wilkinson concluded that teachers who
know more about their pupils are more effective in helping their
students to achieve and to develop in the area of personality.

Hoyt (1955) in a similar study investigated the effect of giving
teachers a systematic appraisal of students upon (1) teachers' knowledge
of students, (2) student achievement, and (3) student attitude toward
teachers. Each of the above was compared to determine if boys and girls
reacted differently.

His subjects, 205 eighth grade students who were randomly
selected from two junior high schools in Minnesota, were divided into
three groups with teachers of each group receiving different amounts of
knowledge about students. No information was given concerning the
subjects in Group I; test scores only were given concerning Group II;
and test scores with information on individual characteristics from
individual folders were given to the teachers in an interpretive
interview with the experimenter and weekly conferences were also held between teacher and experimenter on subjects of Group III. All groups used the same textual material outlined in the same units and taught at the same time with the same teaching method.

Using analysis of variance and of covariance, Hoyt determined that (1) teachers' knowledge of pupil characteristics increased through appraisal data, (2) there was no significant difference in the achievement of the two groups, (3) there was no significant difference between the responses of sexes, and (4) there was a tendency of students to have a more favorable attitude toward those teachers who were more knowledgeable of their characteristics.

Nunnery and Gilliam (1962) compared teachers' knowledge of specific pupils' individual differences with actual data on pupils' characteristics. The data showed that teachers knew significantly more about students (1) with higher intelligence, (2) with higher grades, (3) who were most highly motivated and best adjusted, and (4) who came from "better" homes. They concluded that if teachers need to know the individual differences of all of their pupils, they need to acquire more knowledge about their "poorer" pupils.

In reporting their research, Nunnery and Gilliam (1962) cite two unpublished theses (Baker, 1934, and Dugan, 1954) which considered teacher knowledge of pupil characteristics and which yielded significant differences in "achievement and other developmental outcomes \[p. 101\]."

The studies reported above were made in public schools and were concerned with students' attitudes toward and achievement in school. The present study was made in a religious education institution and
dealt with religious attitudes of students and their achievement in courses in the religious subjects taught in Seminaries of the Church. The methods of collecting information on students' characteristics were those common and practical for teachers in L.D.S. Seminaries.

Research Design

Subjects

The subjects included in this study were high school students attending release-time classes at the Murray L.D.S. Seminary during the 1962-1963 and 1963-1964 school years. During the 1962-1963 school year the subjects were all juniors and seniors in three L.D.S. Church History and Doctrine classes taught by the author. The 1963-1964 subjects were sophomores in six New Testament classes; four of these classes were taught by the author and two were taught by a colleague.

Subjects were assigned to classes by high school guidance personnel on the basis of the school and seminary courses chosen by students, the period during which these courses were taught, and the possible course-period conflicts. Of the original sample of 232 subjects, complete data were available on 201. The first year sample was made up of 68 subjects with the remaining 133 forming the second year sample.

The classes used in the study were selected on the basis of expediency, consisting of all of the classes taught by the author and two classes of the same subject taught by the cooperating teacher. The selection of the individual classes to be taught by the experimental or the control methods was made on the basis of having a similar number of
morning and afternoon classes in both methods groups. There was a total of four classes taught by the control method (three by Teacher S and one by Teacher J) and five classes taught by the experimental method (four by Teacher S and one by Teacher J). A summary of subjects in the various classes is given in Table 1.

Table 1

Classification of Subjects Included in the Study
by Method, Year, Teacher and Class

<table>
<thead>
<tr>
<th>Year</th>
<th>Teacher</th>
<th>Class Designation</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Control</td>
</tr>
<tr>
<td>First</td>
<td>S</td>
<td>A</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>S</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J</td>
<td>I</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>94</td>
</tr>
</tbody>
</table>

The subjects taught by the experimental and control methods were matched on attitude, achievement, observance of Church doctrines and practices, and intelligence as measured by the G score of the GATB. A
series of t-ratios (Appendix A) ranging from .31 to 1.64 indicated no significant difference between the groups on any of the above characteristics.

Instruments

The instruments used in this study included (1) a Student Inventory for measurement of attitude, (2) a Student questionnaire on observance of Church doctrines and practices, (3) two achievement tests, a New Testament Examination and a Church History Test, (4) a Seminary Student Personal Record, and (5) a Seminary Student Checklist to identify personal problem areas.

Inventory of Attitudes. The Student Inventory used to assess attitudes was adapted from an inventory form used by the Department of Seminaries. It consisted of 17 verbalized statements on doctrines and practices of the Church which were considered indicative of a person's attitude toward and commitment to the Church. A combination of Likert's (1936) summated rating method of attitude measurement and the equal-appearing interval method of Thurstone and Chave (1929) was used in constructing the scale. Likert's method consisted of presenting sets of five alternate statements ranging from very favorable to very unfavorable toward a certain topic and subjects selected one statement from each set. Thurstone and Chave presented a series of statements ranging from very favorable to very unfavorable in intermediate steps, and subjects responded to every statement with yes or no to indicate their agreement or disagreement. The Student Inventory used in this study required subjects to respond to every statement by selecting one
of five categories from very favorable to very unfavorable. The scale values assigned were from one to five with five being the most favorable.

In the use of this scale it was assumed that verbalized statements are indicative of attitudes. McNemar (1946) states that attitudes can be inferred either from non-verbal overt behavior, or from verbal or symbolic behavior. In a study of methods of attitude measurement, Cline (1965) obtained an intercorrelation of .66 when comparing the results of a TAT-projective type method, depth interview, and a Religion Belief-behavior questionnaire. He concluded that there was a cross validity between the three methods.

The attitude scale used in this study was also used in a pilot study and administered to four ninth grade seminary classes from Spanish Fork, Springville, and B. Y. High seminaries during the 1960-1961 school year. It was hypothesized that students of the B. Y. High Seminary would have a significantly more favorable attitude toward the Church than students of other seminaries because B. Y. High School is owned and operated by the Church and presumably draws students from families that have very favorable feelings toward the Church. A t-test (Appendix C) showed a significant difference and supported the hypothesis. The attitude scale has been administered to the researchers students since the pilot study and has been found to be effective in identifying students with markedly negative or positive attitude toward the Church.

Tests of achievement. The New Testament Examination and the Church History Test were constructed by the researcher with the assistance of two colleagues. Each test was composed of factual questions contained in the course outline furnished by the Department of
Seminaries. An item analysis was performed by Teacher J on the New Testament Examination after the conclusion of this study, and he found fifty of the 93 questions were good to excellent, 27 acceptable, and 16 poor. Since the 16 poor questions did not discriminate against either group, they were included in the final results. The Church History Test, consisting of 80 questions, was constructed by using final examinations of three different teachers and comparing them with the course outline to insure coverage during the course.

Inventory of student characteristics. The Seminary Student Personal Record, Student Questionnaire, and Seminary Student Checklist were used to gather information on students' family, school, and personal background as well as problem areas in relation to the family, church, and personal traits.

Procedure

The Student Inventory, Student Questionnaire, and achievement tests were administered to the experimental and control groups before and after the experimental period. The Student Inventory and Student Questionnaire were completed anonymously to encourage honesty and frankness on the part of subjects. They were coded for later identification in order to have the resulting information for use in working with the subjects of the experimental group during the experimental period and to match each subject's before and after scores. This made it possible to see how each student changed.

Subjects in the experimental groups completed the Seminary Student Checklist anonymously, then filled in the Seminary Student
Personal Record. This was done during the first three weeks of the experimental period and the forms were made available along with the results of the Student Inventory and Student Questionnaire for teacher use. Unique characteristics were marked, such as church membership of parents, size of family, and special student interests and plans. Teachers were then encouraged to use the information in student-teacher conferences, class assignments and discussions, and classroom procedure as occasion permitted. Inasmuch as seminary teachers seldom consult school records or consult with previous teachers, any attempts to do so were incidental.

Subjects in the control groups were taught with the same course outlines, and methods were held as constant as possible between both teachers and groups. Teachers received no information about subjects in the control groups except what they received in the course of classroom work. They were asked to refrain from actively seeking background information on these groups.

Statistical Analysis

The data were converted to IBM cards and the statistical analysis performed by a 7040 IBM Computer at the Brigham Young University Computer Research Center. In analyzing the data, the answers to three questions were sought: Were the same results obtained (1) both years, (2) by both teachers, and (3) in all classes? Table 2 shows the different combinations of experimental and control classes which were compared.
Table 2

Combinations of Experimental and Control Classes Compared
by Analysis of Covariance and Analysis of Variance

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Teacher(s)</th>
<th>Classes Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Experimental</td>
</tr>
<tr>
<td>First</td>
<td>S</td>
<td>A, B</td>
</tr>
<tr>
<td>Second</td>
<td>S and J</td>
<td>D, E, I</td>
</tr>
<tr>
<td>Second</td>
<td>S</td>
<td>D, E</td>
</tr>
<tr>
<td>Second</td>
<td>J</td>
<td>I</td>
</tr>
<tr>
<td>First and Second</td>
<td>S</td>
<td>A, B, D, E</td>
</tr>
</tbody>
</table>

An analysis of variance and an analysis of covariance were used to test the two hypotheses. The covariate used was intelligence, and the G score on the GATB was the measurement of intelligence used.

The component parts of the analysis of covariance formula used were:

\[
(1) \quad T_{yy} = \sum_{i=1}^{t} \frac{[T_i(y)]^2}{t} - \frac{\sum_{i=1}^{t} T_i(y)}{t} \frac{\sum_{i=1}^{t} n_i}{t}
\]

\[
(2) \quad T_{xx} = \text{Same as formula (1) substituting X for Y.}
\]
The two formulas for testing for significant differences were:

(3) \[ T_{xy} = \sum_{i=1}^{t} \left[ \frac{T_i(y)}{n_i} \right] \left[ \frac{T_i(x)}{n_i} \right] - \left[ \sum_{i=1}^{t} \frac{T_i(y)}{n_i} \right] \left[ \sum_{i=1}^{t} \frac{T_i(x)}{n_i} \right] \]

(4) \[ E_{yy} = SSY - T_{yy} \]
(5) \[ E_{xx} = SSX - T_{xx} \]
(6) \[ E_{xy} = SPXY - T_{xy} \]

The analysis of covariance table used to compute the F-ratio was:

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>df</th>
<th>Adjusted Sum of Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Error</td>
<td>e</td>
<td>1</td>
<td>\frac{(Exy)^2}{Exx}</td>
</tr>
<tr>
<td>Treatment + Error</td>
<td>t + e - 1</td>
<td>1</td>
<td>\frac{(Txy) + (Exy)^2}{Txx + Exx}</td>
</tr>
</tbody>
</table>
Deviations from Regression

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Adjusted Sum of Squares</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Error</td>
<td>f-1</td>
<td>$E_{yy} - \frac{(Exy)^2}{Exx}$</td>
<td>$s^2_e$</td>
</tr>
<tr>
<td>Treatment + Error</td>
<td>t+f-2</td>
<td>$T_{yy} + E_{yy} - \frac{(Txy+Exy)^2}{Txx+Exx}$</td>
<td></td>
</tr>
<tr>
<td>Adjusted Treatment</td>
<td>t-1</td>
<td>$T_{yy} - \frac{(Txy+Exy)^2}{Txx+Exx} + \frac{(Exy)^2}{Exx}$</td>
<td>$s^2_t$</td>
</tr>
</tbody>
</table>

Findings

Attitude

Hypothesis one predicted that there would be no significant difference in religious attitude between students whose teachers had an increased knowledge of individual students' characteristics and students whose teachers did not have this knowledge. An analysis of the results of the first and second years considered separately (Table 3) revealed an F of 5.33 for the first year. This was significant at the .05 level of confidence, indicating that there was a significant difference between the experimental and the control that could have occurred by chance only five times out of 100. However, the test of the mean difference between the experimental (D,E,I) and control (F,G,H) groups taught during the second year by both teachers showed that these second year groups were not significantly different.

This discrepancy between findings of the first and second year which showed a significant difference between experimental and control
Table 3
Analysis of Covariance for Change in Attitude of Experimental and Control Groups Taught Each Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>df</th>
<th>Adjusted Mean Square</th>
<th>F</th>
<th>b</th>
<th>F(Ho:b=0)</th>
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</thead>
<tbody>
<tr>
<td>First</td>
<td>Exp. Error</td>
<td>2348.05</td>
<td>65</td>
<td>36.12</td>
<td>-</td>
<td>.016</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>Method + Error</td>
<td>2540.44</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>192.39</td>
<td>1</td>
<td></td>
<td>5.33*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second</td>
<td>Exp. Error</td>
<td>16685.94</td>
<td>129</td>
<td>130.36</td>
<td>.04</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method + Error</td>
<td>16692.94</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>7.26</td>
<td>1</td>
<td></td>
<td>.055</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teacher + Error</td>
<td>16696.71</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>11.03</td>
<td>1</td>
<td></td>
<td>.846*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interaction + E</td>
<td>16688.76</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>3.09</td>
<td>1</td>
<td></td>
<td>.236</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level

groups the first year but no significant difference between groups the second year led to further analysis by comparing the second year results of each teacher separately. Table 4 presents the results of this comparison which revealed no significant difference between the experimental and control groups of either teacher. However, when using class as the source of variation, the groups taught by Teacher S yielded an F of 1.79, suggesting the possibility that the same results were not obtained in all classes taught by the same method. When examining the
mean changes in attitude scores of the classes taught by Teacher S it was found that the experimental class D increased 4.09 points on the

Table 4
Analysis of Covariance for Change in Attitude of Experimental and Control Groups of Each Teacher the Second Year

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>df</th>
<th>Adjusted Mean Square</th>
<th>F</th>
<th>b</th>
<th>F(Ho:b=0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>Exp. Error</td>
<td>8112.28</td>
<td>40</td>
<td>202.81</td>
<td>.066</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method + Error</td>
<td>8328.36</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>216.08</td>
<td>1</td>
<td>1.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Exp. Error</td>
<td>8189.21</td>
<td>85</td>
<td>96.35</td>
<td>.032</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method + Error</td>
<td>8206.74</td>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>17.53</td>
<td>1</td>
<td>.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class + Error</td>
<td>8533.54</td>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>344.33</td>
<td>1</td>
<td>1.79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

attitude scale while experimental class E decreased -1.78. The fact that both control classes taught by Teacher S had slight decreases (Class F -.013 and Class G -.80) while experimental class D increased seems to be significant.

A further analysis of attitude change was made by combining the experimental and control groups of Teacher S both years and the findings, presented on Table 5, revealed no significant difference.
Table 5

Analysis of Covariance for Change in Attitude of Experimental and Control Groups of Teacher S for First and Second Years Combined

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>df</th>
<th>Adjusted Mean Square</th>
<th>F</th>
<th>b</th>
<th>F(Null:b=0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp. Error</td>
<td>10916.62</td>
<td>154</td>
<td>70.89</td>
<td>.004</td>
<td>.024</td>
<td></td>
</tr>
<tr>
<td>Method + Error</td>
<td>10922.84</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>6.22</td>
<td>1</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>10917.25</td>
<td>155</td>
<td></td>
<td>.087</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>.64</td>
<td>1</td>
<td></td>
<td>.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>10918.55</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>1.93</td>
<td>1</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The low b (.004) on Table 5, like those on Tables 3 and 4, reflects no regression of the covariate, intelligence, on the mean change of attitude, indicating that there was no significant relationship between attitude and intelligence.

In general the findings related to attitude tend to accept the null hypothesis with the exception that there was a significant difference between attitudes of the experimental and the control group during the first year of the study. When the larger sample of the second year which produced no significant difference was combined with the small sample of the first year which did produce a significant difference, the result was no significant difference between experimental and control groups.
Achievement

The second hypothesis stated that there would be no significant difference in the achievement of students whose teachers had an increased knowledge of individual students' characteristics and students whose teachers did not have this knowledge. Table 6 gives the comparisons of experimental and control groups taught each year. The

Table 6

Analysis of Covariance for Achievement Gain of Experimental and Control Groups Taught Each Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>df</th>
<th>Adjusted Mean Square</th>
<th>F</th>
<th>b</th>
<th>F(0:0=b=0)</th>
<th>AOV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Exp. Error</td>
<td>5484.07</td>
<td>65</td>
<td>84.37</td>
<td>.018</td>
<td>.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method+Error</td>
<td>6113.15</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>629.08</td>
<td>1</td>
<td>7.46**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>Exp. Error</td>
<td>31110.96</td>
<td>129</td>
<td>243.05</td>
<td>.241</td>
<td>20.39***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method+Error</td>
<td>31110.96</td>
<td>130</td>
<td></td>
<td>.00</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>.00</td>
<td>1</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teacher+Error</td>
<td>31498.81</td>
<td>130</td>
<td></td>
<td>.00</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>387.85</td>
<td>1</td>
<td>1.60</td>
<td></td>
<td>46.84***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the .01 level
***Significant at the .001 level

results indicated a significant difference between the first year experimental (A,B) and control (C) groups at the .01 level of confidence, signifying that a difference this large (F = 7.46) could have occurred
by chance only once out of 100 times and that the difference was probably a real one.

The achievement of the experimental and control groups taught the second year showed no significant difference (Table 6); however, an analysis of variance comparing the same groups showed an F of 46.84 significant at the .001 level when comparing the results obtained by different teachers. A difference this large could have occurred by chance only once in a thousand times. When the analysis of covariance was computed using the covariate of intelligence, the F ratio (1.60) comparing results of different teachers was not significant, meaning the two teachers' groups were not equal in intelligence. The above findings in addition to the highly significant b (F = 20.39) demonstrates a correlation between intelligence and achievement.

The experimental and control groups of each teacher were analyzed separately (Table 7) and there was no significant difference found between the experimental and control groups of either teacher.

The mean gain in achievement of each of the classes taught by Teacher S the second year were obtained and it was observed (Table 8) that there was a greater difference between the two experimental classes than between the experimental and control classes. The mean change in each of the experimental classes (D,E) had the tendency of equalizing each other and making them the same as the control groups.

The last comparison made of achievement by experimental and control groups was accomplished by using all groups taught by Teacher S during both years combined. The findings recorded on Table 9 disclose
Table 7
Analysis of Covariance for Achievement Gain of Experimental and Control Groups of Each Teacher the Second Year

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>df</th>
<th>Adjusted Mean Square</th>
<th>F</th>
<th>b</th>
<th>F(Ho:b=0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Exp. Error</td>
<td>25730.23</td>
<td>85</td>
<td>302.71</td>
<td>.21</td>
<td>6.81*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method + Error</td>
<td>25815.92</td>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>85.68</td>
<td>1</td>
<td>.28</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Class + Error</td>
<td>26417.20</td>
<td>86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>686.97</td>
<td>1</td>
<td>1.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Exp. Error</td>
<td>4635.54</td>
<td>40</td>
<td>115.89</td>
<td>.27</td>
<td>22.67***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method + Error</td>
<td>4681.71</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>46.17</td>
<td>1</td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level
***Significant at the .001 level

Table 8
Summary of Mean Differences Between Pretest and Posttest Achievement Scores of Classes Taught by Teacher S the Second Year

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class D</td>
<td>Class E</td>
</tr>
<tr>
<td>Mean change of adj. achievement scores</td>
<td>33.15</td>
<td>41.50</td>
</tr>
</tbody>
</table>
Table 9
Analysis of Covariance for Achievement Gain of Experimental and Control Groups of Teacher S Combining Both Years

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Adjusted Sum of Squares</th>
<th>df</th>
<th>Adjusted Mean Square</th>
<th>F</th>
<th>b</th>
<th>$F(\text{Ho} : b = 0)$</th>
<th>AOV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp. Error</td>
<td>32843.11</td>
<td>154</td>
<td>214.66</td>
<td>.125</td>
<td>6.80*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method + Error</td>
<td>32856.32</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>13.21</td>
<td>1</td>
<td>.061</td>
<td>2.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year + Error</td>
<td>33359.07</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>515.96</td>
<td>1</td>
<td>2.44</td>
<td>76.69***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction + E</td>
<td>32848.62</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>6.61</td>
<td>1</td>
<td>.025</td>
<td>1.31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level
***Significant at the .001 level

no significant differences. The $F$ of 2.44 with year as the source of variation evidences a possible difference in results between years. It is significant that without using the intelligence covariate, the analysis of variance resulted in an $F$ of 76.69 which was highly significant and indicated that the two years were not matched on intelligence.

The comparison of achievement between years is superficial because two different tests of achievement were used. The findings of the first year of the study reject the hypothesis while the findings of the second year accept it.
Discussion

This study took place in a religious education institution in contrast to the studies of Ojemann and Wilkinson (1939) and Hoyt (1955), both of which were made in public school. The three treatment method of Hoyt and the two treatment method of Ojemann and Wilkinson were both more intensive and detailed than the methods used in this study. The subjects of both the control and experimental groups used by Hoyt and Ojemann and Wilkinson were mixed together in their classes while subjects of this study were in classes that were either experimental or control. This latter approach had the limitation of a possible bias in the treatment of different classes.

The detail and control with which Ojemann and Wilkinson approached their study yielded more conclusive results. In using a smaller number of subjects they were able to have weekly interviews with each teacher wherein specific information and suggestions for working with each experimental subject were given. Hoyt's efforts were similar with the exception that his interviews with teachers were only occasional. This study used those techniques most likely to be used by most seminary teachers and as a result was more superficial and less conclusive.

The conclusions reached in each study were not the same, and the methods used seem to parallel the results. While Ojemann and Wilkinson found a significant increase in both attitude and achievement of students in their experimental group, Hoyt found a significant difference in attitude only. This study found experimental subjects
with higher achievement and more favorable attitude only in the case of subjects used in the first year of the study. Findings for the second year were not consistent from class to class.

Findings, Conclusions and Recommendations

Findings

The findings of this study were:

(1) Experimental subjects taught during the first year of the study had significantly higher attitude scores than subjects in the control group, but the unbalanced number of 23 subjects in the control group and 45 in the experimental group may have affected the findings.

(2) During the second year of the study when a larger sample of 133 subjects was used and an additional teacher participated, there was no significant difference in the attitude scores of subjects in the experimental and the control groups.

(3) There was no significant correlation between attitude and intelligence.

(4) Experimental subjects taught the first year had significantly higher achievement than did those subjects in the control group, but the unbalanced number of subjects in each group may have affected the findings.

(5) There was no significant difference in the achievement of subjects in the experimental and the control groups taught during the second year when the sample size was increased and an additional teacher participated.

(6) Achievement and intelligence were significantly correlated.
Conclusions

Based on the findings of this study it was concluded that:

There will be no predictable results of teachers' knowledge of students' characteristics in the development of more favorable religious attitudes of students and of higher achievement of students in religious subjects.

Recommendations for Further Research

It is recommended that further study include:

(1) The development of an attitude measurement device using situational choices as the criterion of measurement.

(2) Use of teacher seminars in the understanding of individual students and devising of ways to stimulate individual students' growth.

(3) A longitudinal study showing the changes in attitude experienced by students during each of the four years of seminary.
REFERENCES


Hoyt, Kenneth B. "A study of the effects of teacher knowledge of pupil characteristics on pupil achievement and attitudes towards classwork," *Journal of Educational Psychology*, 1955, 46, 302-310.


Ojemann, Ralph, and Wilkinson, Francis R. "The effect on pupil growth of an increase in teachers' understanding of pupil behavior," *Journal of Experimental Education*, 1939 (8), 143-147.


APPENDICES

APPENDIX A  SUPPLEMENTARY DATA

APPENDIX B  INSTRUMENTS

APPENDIX C  PRIOR RESULTS ATTAINED ON ATTITUDE SCALE
APPENDIX A
SUPPLEMENTARY DATA
Table 10

A Comparison of Attitude Scores of Subjects Before the Experimental Period by Year, Teacher and Method

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Years 1 and 2, teacher 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>71</td>
<td>74.11</td>
<td>8.78</td>
<td>0.31</td>
</tr>
<tr>
<td>Experimental</td>
<td>87</td>
<td>74.47</td>
<td>5.75</td>
<td></td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>71</td>
<td>73.76</td>
<td>8.77</td>
<td>0.90</td>
</tr>
<tr>
<td>Experimental</td>
<td>87</td>
<td>72.21</td>
<td>11.18</td>
<td></td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher 1</td>
<td>90</td>
<td>74.01</td>
<td>6.56</td>
<td>1.64</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>43</td>
<td>71.00</td>
<td>14.62</td>
<td></td>
</tr>
</tbody>
</table>
Table II

A Comparison of Achievement Scores of Subjects Before the Experimental Period by Year, Teacher and Method

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years 1 and 2, teacher 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>71</td>
<td>40.87</td>
<td>16.22</td>
<td>0.48</td>
</tr>
<tr>
<td>Experimental</td>
<td>87</td>
<td>42.08</td>
<td>15.22</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>71</td>
<td>40.82</td>
<td>14.45</td>
<td>1.22</td>
</tr>
<tr>
<td>Experimental</td>
<td>62</td>
<td>37.71</td>
<td>15.01</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Teacher 1</td>
<td>71</td>
<td>40.29</td>
<td>14.50</td>
<td>1.04</td>
</tr>
<tr>
<td>Teacher 2</td>
<td>62</td>
<td>37.71</td>
<td>15.01</td>
<td></td>
</tr>
</tbody>
</table>
Table 12
A Comparison of Subjects' Observance of Church Doctrines and Practices
Before the Experimental Period by Year, Teacher and Method

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years 1 and 2, teacher 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>71</td>
<td>66.76</td>
<td>11.21</td>
<td>0.71</td>
</tr>
<tr>
<td>Experimental</td>
<td>87</td>
<td>67.97</td>
<td>10.13</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>71</td>
<td>66.94</td>
<td>11.68</td>
<td>0.34</td>
</tr>
<tr>
<td>Experimental</td>
<td>62</td>
<td>66.23</td>
<td>12.96</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
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<td></td>
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<td></td>
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<tr>
<td>Teacher 1</td>
<td>90</td>
<td>66.84</td>
<td>10.88</td>
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<tr>
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<td>43</td>
<td>66.12</td>
<td>14.85</td>
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Table 13
A Comparison of Subjects' G Score Percentile on GATB by Year, Teacher and Method

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
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### Table 14
Summary of Mean Difference Between Pretest and Posttest Attitude Scores of Experimental and Control Groups

<table>
<thead>
<tr>
<th>Groups Compared</th>
<th>Mean Difference of Experimental</th>
<th>Mean Difference of Control</th>
<th>Level of Significance</th>
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<td>First year subjects</td>
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<td>-1.44</td>
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<td>-.44</td>
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<td>Teacher J subjects second year only</td>
<td>5.31</td>
<td>.82</td>
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### Table 15
Summary of Mean Difference Between Pretest and Posttest Attitude Scores of Groups by Teacher and Year

<table>
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<tr>
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<td>Teacher J</td>
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<td>Teacher S subjects</td>
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<td>n.s.</td>
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<tr>
<td>Second year</td>
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Table 16
Summary of Mean Difference Between Pretest and Posttest
Achievement Scores of Experimental and Control Groups

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<thead>
<tr>
<th>Groups Compared</th>
<th>Mean Difference of Experimental</th>
<th>Mean Difference of Control</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>First year subjects</td>
<td>18.81</td>
<td>12.37</td>
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<td>Second year subjects</td>
<td>26.22</td>
<td>27.10</td>
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<tr>
<td>Teacher S only</td>
<td>28.26</td>
<td>24.62</td>
<td>n.s.</td>
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<tr>
<td>Teacher S subjects second year only</td>
<td>38.32</td>
<td>36.35</td>
<td>n.s.</td>
</tr>
<tr>
<td>Teacher J subjects second year only</td>
<td>15.01</td>
<td>17.08</td>
<td>n.s.</td>
</tr>
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</table>

Table 17
Summary of Mean Difference Between Pretest and Posttest
Achievement Scores of Groups by Teacher and Year

<table>
<thead>
<tr>
<th>Groups Compared</th>
<th>Mean Difference</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year subjects</td>
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<td></td>
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<tr>
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<tr>
<td>Second year</td>
<td>37.29</td>
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</table>
NEW TESTAMENT EXAMINATION

Date__________________  Name__________________________
Teacher________________  Period________________________

Score__________________

True-False  Put a cross through the correct answer on the ANSWER SHEET.
Do not guess (double penalty for guessing.) If any part of
the statement is false the whole thing should be marked
false.

1. Jesus spent only three years in his actual ministry (period of
teaching.
2. Jesus was not perfect all the time he was upon the earth.
3. Jesus was the God who appeared to Moses and the Old Testament
prophets.
4. Joseph the carpenter was the real father of Jesus.
5. The New Testament was first written mostly in Latin.
6. Egypt was the country which controlled the world during Jesus' lifetime.
7. The apostacy from the church did not start until hundreds of years
after Jesus' death.
8. The Kingdom of God is the Church of Jesus Christ on earth.
9. Eternal life is the same thing as being resurrected.
10. Vain means something very good or a person who is good looking.
11. It is not our job to see that God's will is done on earth.
12. Jesus compared us to a candle in one of his teachings and said that
we should not even be around bad people because they might put out
our light.
13. Even obeying all of the laws of Moses did not make a person perfect.
14. We shouldn't hate our enemies unless we have a good cause or reason.
15. A spirit has no shape or form and is made of nothing.
16. Resurrection means that our spirit comes to life and leaves our
physical body after death.
17. We know nothing of the activities of Jesus before he was born on
earth.
18. Even though Adam and millions of others were born before Jesus on
earth, Jesus was still the firstborn son of God.
19. Sprinkling is all right for baptism as long as the person quits his
bad habits.
20. Immortality means that we live forever in the presence of God.
21. The "Fall of Adam" was really a blessing, not a curse, to all mankind.
22. God the Father is not really our father.
23. Jesus is our spiritual father; that means father of our spirits.
24. Jesus was 23 years old when he started his ministry.
25. Jesus was just a spirit when the earth was created so he could have
nothing to do with actually creating it.
26. Jesus had at least 4 half brothers and 2 half sisters.
27. People can get the priesthood just by praying or reading the Bible.
28. The Feast of the Passover was a seven day feast celebrating the
Passover of the death angel in Egypt without causing the death of the faithful and obedient Israelites.

29. All men will have immortality but only the righteous will have eternal life.

30. All disciples were apostles in Christ's church.

**Matching** Place the number of the matching statement on the right in the blank on the answer sheet.

31. Parable that taught men to pray constantly and not give up.  
32. Parable telling of one who became lost through his own choice.  
33. Parable that teaches that the Kingdom of God is worth all we have.  
34. What they call any descendant of Abraham.  
35. What they call any descendant of Judah or one who lives in Judah.  
36. All people who are not descendants of Abraham after his time.  
37. The religious group who did not believe in the resurrection.  
38. The religious group who were so strict about petty laws that they were called hypocrites.  
39. Parable that taught men to pray humbly instead of proud and haughty.  
40. The parable of something that became lost through straying away.

**Matching (Set 2) Same instructions. Select answers from second list.**

41. The man who wrote most of the letters in the New Testament.  
42. The author of Acts.  
43. The Apostle who was converted by a vision on the Road to Damascus.  
44. The man who wrote the story of Jesus' life as told to him by Peter.  
45. The man who helped carry Jesus' cross to Calvary.  
46. The doubter who had to feel Jesus' body before he believed He was alive.  
47. Emperor of Rome when Peter and Paul were supposedly killed.  
48. Emperor of Rome when Jesus was born.  
49. The first person to see the resurrected Christ.

1. Hidden treasure  
2. Lost sheep  
3. Importunate widow  
4. Prodigal son  
5. Pharisees  
6. Saducees  
7. Hebrews  
8. Jews  
9. Gentiles  
10. Pharisee and Publican
50. The governor of Judea when Jesus was killed. Trial before him.
51. The angel who announced the coming births of John and Jesus.
52. The High Priest of the Jews who was in charge of Jesus' trial before His crucifixion.
53. The carpenter who was Jesus' "step father."
54. The man who had been dead four days when Jesus raised him from the dead.
55. The king of Palestine (under the Romans) at the time of Jesus' birth who had the babies killed.
56. The unclean man who said to Jesus, "If thou wilt, thou can't make me clean."
57. The forerunner of Jesus who prepared the way for His coming.
58. The chief Apostle who denied three times that he knew Jesus.
59. The Apostle who was called "Beloved."
60. The Apostle who was called "Caphas."

Matching (Set 3) Select answers from third list.

61. The physician who wrote a book on the life of Jesus.
62. Mother of Jesus.
63. The prophet who was beheaded upon the request of a dancer.
64. The man who baptized Jesus.
65. The apostle who betrayed Jesus to the Jews.
66. The killer released in place of Jesus.
67. Jesus' cousin who was born 6 months earlier than Jesus.
68. Taught that it is not the gift but the giver AND not the amount but the attitude of the giver that is important (a parable).
69. The people who shall be filled with the Holy Ghost (a beatitude).
70. The parable that compares us to dirt.
71. The command which includes everything.
72. The teaching that says to do unto others as you would have them do unto you.
73. Something that was lost through another person's carelessness (a parable).
74. Those who shall be comforted (a beatitude).
75. The type of person who has good thoughts, words, actions, etc.
76. Pretends to be better than he is.

18. Peter
19. Pilate
20. Simon of Cyre
21. Thomas
1. Barabus
2. Judas Iscariot
3. John the Baptist
4. Luke
5. Mary
6. Four Soils or Sower
7. Leven
8. Lost Coins
9. Widow's mite
10. Those who hunger and thirst for righteousness
11. Those who mourn
12. The pure in heart
13. Hypocrite
14. Be perfect
15. Golden Rule
**Multiple Choice** Place the number of the answer in the blank on the answer sheet.

1. Which is not one of the things necessary to make a kingdom:  
   1) King  2) officers  3) throne  4) people  5) laws

2. Which of the following did Jesus say was most valuable to missionaries:  
   1) money  2) scriptures  3) Holy Ghost  
   4) supply of clothes

3. Which is not one of the effects of Jesus' atonement:  
   1) abolished lasting physical death  2) did away with spiritual death unconditionally  
   3) paid for sins if we repent

4. Testament means:  
   1) testimony  2) gospel  3) covenant  4) tested

**Define or Explain the Following:**

81. B. C.
82. A. D.
83. Priesthood
84. Apostacy
85. Martyr
86. Epistle
87. The word "Bible"
88. Apocalypse
89. Samaritan

**Essay**

   1.
   2.
   3.
   4.
   5.

91. List the four provinces of Palestine.
   1.
   2.
   3.
   4.

92. List the three continents Palestine connects
   1.
   2.
   3.

93. What are the two commandments Jesus listed as being most important and as being the basis of all others.
# ANSWER SHEET

**Teacher**

**Date**

**Name**

**Period**

**Score**

<table>
<thead>
<tr>
<th>True-False</th>
<th>Matching</th>
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<td>4. T F</td>
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</table>

**Multiple Choice**

1. ___
2. ___
3. ___
4. ___
COMPREHENSIVE CHURCH HISTORY TEST

Name________________________
Score________________________

True-False  Put a cross (X) through the correct answer. Do not guess--there will be a two point penalty for wrong answers.

T F 1. Emma Smith served as scribe for the first full 116 pages of the Book of Mormon.

T F 2. Joseph did not care about the loss of the 116 pages of manuscript because he had the same period of history on the small plates.

T F 3. The Mormon Battalion was composed of 500 men who were sent to fight against Mexico.

T F 4. Joseph Smith went to the Hill Cumorah to inquire as to which church he should join.

T F 5. The million dollar Nauvoo temple was not even dedicated until after the saints were driven from Nauvoo, yet they sacrificed to build it.

T F 6. Joseph Smith was once a candidate for President of the United States.

T F 7. All of the saints left Nauvoo at the same time.

T F 8. Winter quarters was the place where the saints gathered across the river from Nauvoo.

T F 9. The Mormons followed the Oregon trail west until they cut off to the Salt Lake Valley.

T F 10. The United Order lived in Utah never did comply with the law of Consecration which the Lord revealed in all details.

T F 11. At one time the United States Government took over the Church's property and the Church had to pay rent to use its own buildings in Utah.

T F 12. We believe that all men lived before birth on earth.

T F 13. The "Fall of Adam" was really a great blessing to us instead of a curse.

T F 14. The fruit Adam and Eve ate were apples.

T F 15. Jesus paid for the sins of only people who repent.

T F 16. We could learn how to be like God without living on earth, so there is no purpose in our coming to earth since God knows just about what we will do.

T F 17. Jesus brought the resurrection to only people who repent.

T F 18. A priest in the Aaronic priesthood has authority to give the Gift of the Holy Ghost.

T F 19. Only the righteous will come back to life.

T F 20. A deacon can baptize.

T F 21. When men die they just cease to exist until the resurrection.

T F 22. Eternal marriage is not necessary to just get into the celestial kingdom.
Matching | Put the number of the word on the right which matches the phrase on the left in the blank.
---|---
23. Utah became a state in what year? | 1. 1805
24. Joseph Smith was killed when? | 2. 1857-58
26. Who was the first scribe for Joseph Smith? | 4. 1844
27. Who was the last great Nephite general who abridged the large plates? | 5. Fayette, New York
28. Who was scribe for most of the Book of Mormon? | 6. Emma Hale
29. Who was the last ancient keeper of the Gold Plates? | 7. Lucy Mack
30. Who was wife of Joseph Smith Sr.? | 8. Martin Luther
31. Who was wife of Joseph Smith Jr.? | 9. Martin Harris
32. Who translated the Bible into German? | 10. Mormon
33. Who translated the Bible into English? | 11. Moroni
34. The group of people who came to America at the time of the tower of Babel were called what? | 12. Oliver Cowdery
35. The church was organized in what town? | 13. John Wycliffe
36. A group of people who were descendants of Joseph son of Israel. | 14. Jaredites
37. The town where Joseph was living when he got the Priesthood. | 15. Mulekites
38. One of the counselors of Joseph Smith. | 16. Nepites
39. Who was in the jail with Joseph at Carthage? | 17. Harmony, Penn.
40. A great non-Mormon friend to the saints. | 18. Manchester, New York
41. Who took a group of saints to California by boat? | 19. Sydney Rigdon
42. Who said one of his descendants would revolutionize the world of religious faith? | 20. John Taylor
43. The man who took Joseph Smith's place as president. | 21. Sam Brannan
44. The book of scripture which was given to Joseph Smith by direct revelation. | 22. Colonel Kane
45. What book of scripture was a collection of revelations to Joseph Smith. | 1. Brigham Young
                                      | 2. Wilford Woodruff
                                      | 3. E. B. Grandin
                                      | 4. Sam Brannan
                                      | 5. Asel Smith
                                      | 6. Martin Harris
                                      | 7. Cumming
                                      | 8. Moses
                                      | 9. Abraham
                                      | 10. Pearl of Great Price
                                      | 11. Doctrine and Covenants
                                      | 12. Book of Mormon
46. What book was translated from original papyrus records?

47. What book contains Joseph Smith's own story?

48. Who was the first governor of the Territory of Utah?

49. Who received the revelation to stop the practice of Plural Marriage?

50. Who printed the first publication of the Book of Mormon?

Completion Answer the following.

51. Who restored the Aaronic Priesthood?
52. Who restored the Melchizedek Priesthood?
53. Who restored the sealing power of the Priesthood?
54. Who restored the Keys of the Gathering of Israel?
55. List the presidents of the Church in order.

56. The year the Book of Mormon was published?
57. The year Joseph Smith was born?
58. The year of Moroni's first visit?
59. The year of Joseph Smith's first vision?
60. The year the church was organized?
61. The year Joseph Smith received the Gold Plates?
62. The age of Joseph Smith when he saw the First Vision?
63. The age of Joseph Smith when he obtained the Gold Plates?
64. The age of Joseph Smith when he was killed?
65. The number of years after the organization when the saints reached Utah?
66. How long did it take to build the Salt Lake Temple?

Essay

1. What did Joseph Smith learn from the First Vision?
2. List five reasons for the Apostacy.
3. What three groups does the Book of Mormon tell of?
4. List 6 of the twelve witnesses of the Book of Mormon.
5. What was the revival of learning called after the Dark Ages?
6. What was the doctrine which taught that the bread and wine actually became the flesh and blood of Christ?
7. What was the pair of transparent stones in bows called?
8. What was the erroneous idea that church leaders should not marry called?
9. What did they call the doctrine of selling forgiveness?
10. What was the period called when men were trying to change the Catholic Church?
11. In what state was the New Zion to be built?
12. Who leads the church after the death of a president?
SEMINARY STUDENT PERSONAL RECORD

This information is for the purpose of helping the Seminary to better serve your personal needs and to help you. It will be held strictly confidential.

Name ___________________________ Date __________ Phone # ________________

Address________________________ Age ______ Sex____ Birth Date___________

Ward_____________ Stake_________ Bishop’s Name ________________________

Of what church is your FATHER a member_____ Is he active____ a convert____

Of what church is your MOTHER a member_____ Is she active_____ a convert____

Father’s Name__________________ Occupation________ Employer___________

Mother’s Name__________________ Occupation________ Employer___________

Is your Father living?____________ Is your Mother living?__________

Are your parents living together?_______ If no, explain’___________

If you are not living with your parents, please explain with whom you are living.

What church positions do or have your parents held?
Father - present________________________ past_________________________

Mother - present________________________ past_________________________

List your brothers and sisters and give ages________________________

______________________________________________________________

Do you have any physical handicaps?______ Please explain________________________

What are your favorite activities: (such as sports, dancing, singing, etc.)____________________________

What are your hobbies and how long have you had them?_______________________________________

Do you have a part-time job (regular)________ What do you do and where?__________________________
What occupation do you think you would like to enter?  __________________________

What school subjects do you like best? __________________________

What school subjects do you like least? __________________________

Are you going steady at present? ______ How often do you go on dates?

_____________________________________________________________

Do you like being at home? _____ Why? __________________________

Do you have family prayer? _____ Boys, what priesthood do you hold?

_____________________________________________________________

How active are you in your church activities? ______________________

Give your reason for taking Seminary. ____________________________
SEMINARY STUDENT INVENTORY
(SEMINARY STUDENT CHECKLIST)

Date______  Age______  Sex______  Of what Church are you a member?______

If LDS give your:  Ward________________________  Stake________________________

Check past Seminary grade average:  A to B______  B to C______  C or below______

Instructions

Do not place your name on this paper. The only purpose of this inventory is to give your seminary teacher a better understanding of how you feel on different topics so that he might make your seminary experience more helpful and interesting to you.

There are no right or wrong answers. First, go through the inventory and underline each statement which applies to you. After completing the inventory, go back and put a circle around the letter (a, b, c, etc.) of any statement about which you feel very strongly or are deeply concerned. You may mark more than one statement under each number. If the opportunity for expressing how you feel is not adequate in a particular area, do not hesitate to write your feelings.

This paper will be held strictly confidential by your Seminary teacher. It will be identifiable to him alone. He will destroy it after he is through with it.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Options</th>
</tr>
</thead>
</table>
| 1. In physical size I am: | a. too small  
   b. about right  
   c. too large  
   d. too tall  
   e. too short  
   f. have other physical handicaps |
| 2. My rate of physical growth with students my age is: | a. ahead  
   b. behind  
   c. about even |
| 3. My health is: | a. fair  
   b. good  
   c. poor |
| 4. I generally feel: | a. nervous  
   b. tired  
   c. tired sometimes  
   d. energetic |
| 5. I feel as follows about my: | a. house (happy) (unhappy)  
   (not concerned)  
   b. clothes (happy) (unhappy)  
   (not concerned)  
   c. father (happy) (unhappy)  
   (not concerned)  
   d. mother (happy) (unhappy)  
   (not concerned)  
   e. brother(s), sister(s),  
   (happy) (unhappy) (not concerned) |
6. I feel my family:
   a. argues too much
   b. shows little consideration for each other
   c. gets along well
   d. gets along very well

7. My parents
   a. love me
   b. put up with me
   c. reject me
   d. despise me
   e. I don't know how they feel
   f. my parents don't understand me

8. My parents:
   a. I reject them
   b. I love them
   c. I put up with them
   d. I can't get along with them
   e. I don't know how I feel

9. My parents:
   a. make decisions for me
   b. let me make my own decisions
   c. give advice but allow me to make my own decisions
   d. neither help nor hinder

10. My parents are:
    a. separated
    b. father deceased
    c. mother deceased
    d. mother works full time
    e. living together

11. My family and Word of Wisdom:
    a. father (smokes), (drinks)
    b. mother (smokes), (drinks)
    c. other members of the family (smoke) (drink)
    d. family lives Word of Wisdom

12. My father, guardian, relative (male), step-father is:
    (Circle the one with whom you live)
    a. active in the Church
    b. inactive in the Church
    c. non-member of the Church
    d. moderately active

13. My mother, relative (female), stepmother is: (Circle the one with whom you live)
    a. active in the Church
    b. inactive in the Church
    d. non-member of the Church
    e. moderately active

14. I feel that those of my own sex:
    a. have a more satisfying life than the opposite sex.
    b. have fewer breaks in life than the opposite sex
    c. are about equal in opportunity to the opposite sex

15. I feel that I have:
    a. an important purpose or mission in life
    b. no purpose or mission in life
    c. some purpose or mission in life
    d. haven't thought of it

16. My interest in a member of the opposite sex is:
    a. almost nil
    b. a little interest
    c. a strong interest
    d. a desire to get married

17. I would like:
    a. to stay where I am
    b. to move to a town
    c. to move to a small rural area
    d. to move to a large city
18. In the past few years we have moved:
   a. several times
   b. once
   c. never

19. I think most students at this school:
   a. leave me out of their activities
   b. are fairly friendly
   c. act stuck up
   d. are really fine people

20. What I really like about this school:
   a. are the classes
   b. are the athletics
   c. are social activities
   d. are the friends I have
   e. I don't like it

21. I have:
   a. some friends
   b. a lot of friends
   c. very few friends
   d. one or two friends

22. Concerning my school work I:
   a. feel I am above average and get good grades
   b. feel capable but don't get good grades
   c. have a hard time learning and get poor grades
   d. get along satisfactorily

23. I watch television and movies:
   a. every chance I get
   b. only good programs
   c. once in a while
   d. hardly ever
   e. quite a bit

24. I attend MIA:
   a. often
   b. occasionally
   c. never
   d. regularly

25. I attend Priesthood Meeting (boys):
   a. often
   b. occasionally
   c. never
   d. regularly

26. I attend Sacrament Meeting:
   a. often
   b. occasionally
   c. never
   d. regularly

27. I attend Sunday School:
   a. often
   b. occasionally
   c. never
   d. regularly

28. I:
   a. enjoy going to Church
   b. would rather not have to attend
   c. go to Church from habit
   d. go to Church because parents force me

29. I feel:
   a. not too close to God
   b. close to God as a rule
   c. all mixed up about God
   d. very close to God
   e. my concept of God is not too clear

30. Concerning my testimony of the Gospel:
   a. I do not have one
   b. I think the Church is true
   c. I am certain the Church is true
   d. I do not care if I have one or not
   e. I want to get a stronger testimony
31. I pray individually:
   a. often
   b. occasionally
   c. never
   d. regularly

32. We have family prayer:
   a. daily
   b. never
   c. occasionally
   d. regularly

33. Around most people I feel:
   a. a strong lack of confidence
   b. confident
   c. equal to them
   d. better than they in some things

34. I feel life is:
   a. good
   b. difficult
   c. O.K., I guess
   d. so bad I don't care to face adulthood

35. Concerning tithing:
   a. I believe it is very important to pay it
   b. it is all right if you want to
   c. you should do it if you can afford it
   d. it is not important

36. Concerning family prayer I feel:
   a. it is important to have it
   b. all right if you can find the time
   c. it is not important in family life

37. Concerning my emotions (fear, nervousness, anger):
   a. I have a hard time controlling my emotions
   b. I generally control myself
   c. I get upset once in a while
   d. I feel upset most of the time about something

38. Concerning the Word of Wisdom:
   a. I have a hard time living it
   b. I have some trouble living it
   c. I am getting along very well
   d. I don't think it is important to live it

39. I feel that I keep the Sabbath Day:
   a. rather well
   b. break it sometimes
   c. don't worry much whether I do or do not

40. Concerning unclean thoughts I:
   a. have a great deal of trouble
   b. have some trouble
   c. have no trouble at all
   d. generally have clean thoughts

41. I feel that necking is:
   a. immoral
   b. not exactly right
   c. O.K. sometimes
   d. O.K. if you like the person
   e. O.K. most anytime

42. I feel that petting is:
   a. immoral
   b. not exactly right
   c. O.K. sometimes
   d. O.K. if you like the person
   e. O.K. most anytime
43. Regarding forgiveness:
   a. I forgive very easily
   b. I just can't help hating certain people
   c. I want to kill certain people
   d. I can forgive after a struggle

44. I am taking Seminary because:
   a. I want to
   b. my parents made me
   c. my friends do
   d. I want to graduate

45. To be different and live the gospel when other people do not:
   a. embarrasses me
   b. I feel good about living the gospel
   c. I don't feel we need to live differently than the world
   d. I want to help those who are not living the gospel

46. Underline one:
   a. I (like) (dislike) Sunday school.
      Why?________________________
   b. I (like) (dislike) Sacrament.
      Why?________________________
   c. I (like) (dislike) Mutual.
      Why?________________________
   d. I (like) (dislike) Priesthood quorum work.
      Why?________________________

47. Concerning a mission:
   a. I want to go on a mission
   b. I haven't thought about going very much
   c. I would probably go if they put pressure on me
   d. I'm definitely not interested in a mission
   e. it is one of the really important goals of my life

48. Concerning money:
   a. I never have enough money
   b. I don't have all I want, but I get along
   c. I have all I want and should have
   d. I really would like to earn my own money
   e. I have more than is good for me

49. I have: (give number)
   a_______brothers___sisters

50. I have: (give number)
    a. older brothers________
    b. older sisters________
    c. younger brothers______
    d. younger sisters_______
    e. half brother or sister__

51. About my brothers and sisters:
    a. I get along O.K. with my brothers and sisters
    b. I really love my brothers and sisters
    c. we don't get along well at all
    d. I wish I had more (brothers) (sisters)

52. I feel hostile towards:
    a. school teachers
    b. police officials
    c. parents
    d. Church authorities
    e. school administrators
    f. anyone with authority
    g. no one
53. My attitude about going steady:
   a. it's O.K. if everybody else does
   b. should wait until old enough to think about getting married
   c. should wait until a senior in high school
   d. it's O.K. if you like a person
   e. it's dangerous to go steady too young

54. About cars:
   a. I have my own
   b. I can have my folk's car when I want it
   c. I don't have the use of a car
   d. our family car is too old
   e. I have to depend on my friends for a car
   f. our family car is O.K.

55. What influences or situations make it most difficult for you to live the Gospel? Describe in some detail.

56. Some of the greatest problems I feel I need to overcome are:

57. If you had the opportunity to ask the Prophet Joseph Smith any questions you wanted, what would you ask him?
STUDENT INVENTORY

Date_____Sex_____Of what church are you a member?______________________

Instructions

Please do not place your name on this paper. The purpose of this inventory is to give your seminary teacher a better understanding of how students feel so that he can make your work in Seminary more interesting and helpful.

There are no right or wrong answers. Go through the statements and put a cross (X) in the box or column which applies to you or which is true of your feelings. This paper will be held strictly confidential; so, for the information to be useful, please be frank and honest.

Very Important - means you consider the statement vital and can't be done without.
Important - means you consider the statement more important than most things but not all.
Okay - means you consider the statement as something that can be done without part of the time.
Of Little Importance - means you consider the statement as being better than nothing.
Unimportant - means you consider the statement not important at all.

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Very Important</th>
<th>Important</th>
<th>Okay</th>
<th>Of Little Importance</th>
<th>Unimportant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>How important should religion be to people?</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Obeying the Law of Tithing is:</td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td>Attendance at M.I.A. is:</td>
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<tr>
<td>4.</td>
<td>Having family prayer daily is:</td>
<td></td>
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<tr>
<td>5.</td>
<td>To me, religion is:</td>
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<td>6.</td>
<td>Obeying the Word of Wisdom is:</td>
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<tr>
<td>7.</td>
<td>Gaining a testimony is:</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>Attendance at Sacrament Meeting is:</td>
<td></td>
<td></td>
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<tr>
<td>9.</td>
<td>Praying in secret (alone) every day is:</td>
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<tr>
<td>10.</td>
<td>Keeping the Sabbath Day holy is:</td>
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<tr>
<td>11.</td>
<td>Attendance at Sunday School is:</td>
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<tr>
<td>12.</td>
<td>Doing what our Church Leaders tell us is:</td>
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<tr>
<td>13.</td>
<td>Going on a mission for boys is:</td>
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</tr>
<tr>
<td>14.</td>
<td>Accepting a position in the church when asked is:</td>
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</tr>
<tr>
<td>15.</td>
<td>The advice of the Church Leaders about dating is:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>How important is it for us to pay fast offerings, budget, and other contributions to the Church?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STUDENT INVENTORY

Date ______________________

Please do not place your name on this paper.

There are no right or wrong answers. Go through the statements and put a cross (X) in the box or column which applies to you. Please be honest and frank.

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Almost</th>
<th>Usually</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
</table>

1. I pay all donations the church asks me for.
2. I work on welfare and service projects when asked.
3. I do what church leaders have taught about dating.
4. I accept church jobs and positions when asked.
5. As I think about my future, I include a mission in my plans (boys) or encourage my boy friend to (girls).
6. I do my best to obey what our church leaders tell us.
7. I attend Sunday School except when seriously ill.
8. I do my best to keep the Sabbath Day holy.
9. I pray in secret every day.
10. I attend Sacrament Meeting except when seriously ill.
11. I am trying to gain a testimony.
12. I obey the Word of Wisdom.
13. I believe my actions show that my religion is important to me.
14. When it is up to me I will see that we have family prayer.
15. I attend M.I.A. except when seriously ill.
16. I pay tithing on the money I earn.
17. I make it a practice to be honest in what I do and to refrain from cheating or lying.
18. I encourage others to take seminary classes.
APPENDIX C

PRIOR RESULTS ATTAINED ON ATTITUDE SCALE
Table 18

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>Critical Value</th>
<th>Level of Con.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Y. High Class</td>
<td>28</td>
<td>28.5</td>
<td>5.67</td>
<td>2.70</td>
<td>2.66</td>
<td>.01</td>
</tr>
<tr>
<td>Other Classes Combined</td>
<td>81</td>
<td>32.6</td>
<td>9.51</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The high scale value was assigned to less favorable responses.

Table 19

Comparison of Data on Attitude Scale of Each Pilot Study Class with the Entire Sample

<table>
<thead>
<tr>
<th>Group</th>
<th>Range</th>
<th>Mean</th>
<th>Median</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springville East</td>
<td>19-58</td>
<td>31.5</td>
<td>29.5</td>
<td>9.34</td>
</tr>
<tr>
<td>Spanish Fork A</td>
<td>19-58</td>
<td>32.5</td>
<td>30.0</td>
<td>9.17</td>
</tr>
<tr>
<td>Spanish Fork B</td>
<td>20-57</td>
<td>34.1</td>
<td>32.0</td>
<td>9.38</td>
</tr>
<tr>
<td>B. Y. High</td>
<td>21-44</td>
<td>28.5</td>
<td>28.5</td>
<td>5.67</td>
</tr>
<tr>
<td>Total Sample</td>
<td>19-58</td>
<td>31.9</td>
<td>30.0</td>
<td>8.85</td>
</tr>
<tr>
<td>All but B. Y. High</td>
<td>19-58</td>
<td>32.6</td>
<td>31.0</td>
<td>9.51</td>
</tr>
</tbody>
</table>

*The high scale value was assigned to the less favorable response.
THE EFFECTS OF INCREASED TEACHER KNOWLEDGE
OF STUDENT CHARACTERISTICS ON STUDENT
ATTITUDES AND ACHIEVEMENT

An Abstract of a Thesis
Presented to the
Graduate Department of Education
Brigham Young University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by

Sherman D. Harward

August 1967
ABSTRACT

Purpose of the Study

The purpose of this study was to study the effects of increased teacher knowledge of students' individual characteristics on students' religious attitudes and achievement in Seminary. It was based upon the rationale that when teachers have more knowledge of each student's characteristics, they can be more effective in planning for individual needs. One result will be that students' behavior and attitudes will be affected positively because their needs are more fully satisfied and interests more effectively utilized.

Hypotheses

It was hypothesized that:

(1) There will be no significant difference in religious attitudes of those students whose teachers have an increased knowledge of individual students' characteristics than students whose teachers do not have this knowledge.

(2) There will be no significant difference in the achievement of students whose teachers have an increased knowledge of individual students' characteristics from those students whose teachers do not have this knowledge.

Research Design

The subjects of the study were 201 high school students attending Murray L.D.S. Seminary during the 1962-1963 and 1963-1964 school years. Of the 201 subjects, 68 were juniors and seniors enrolled in three L.D.S. Church History and Doctrine classes during the 1962-1963 school
year, and 133 were sophomores enrolled in six New Testament classes during the 1963-1964 school year. Subjects were those assigned to the various classes by high school personnel on the basis of school registration policies.

The data were collected by means of a Student Inventory for measurement of attitudes and an achievement test on each of the courses taught. Information on student characteristics was obtained through use of a Student Questionnaire on observance of church doctrines and practices, a Seminary Student Personal Record form, and a Seminary Student Checklist to identify personal problem areas.

The Student Inventory and achievement tests were administered before and after the experimental period, and teachers were given information on subjects in experimental classes which was obtained from the instruments administered. Teachers then used this information of student characteristics in student-teacher consultations, class assignments and discussions, and as occasion permitted in other classroom procedures. The statistical analysis was made through an analysis of covariance.

**Findings**

The findings of this study were:

(1) Experimental subjects taught during the first year of the study had significantly higher attitude scores than subjects in the control group, but the unbalanced number of 23 subjects in the control group and 45 in the experimental group may have affected the findings.

(2) During the second year of the study when a larger sample of 133 subjects was used and an additional teacher participated, there was
no significant difference in the attitude scores of subjects in the experimental and the control groups.

(3) There was no significant correlation between attitude and intelligence.

(4) Experimental subjects taught the first year had significantly higher achievement than did those subjects in the control group, but the unbalanced number of subjects in each group may have affected the findings.

(5) There was no significant difference in the achievement of subjects in the experimental and the control groups taught during the second year when the sample size was increased and an additional teacher participated.

(6) Achievement and intelligence were significantly correlated.

Conclusions

Based on the findings of this study it was concluded that:

There will be no predictable results of teachers' knowledge of students' characteristics in the development of more favorable religious attitudes of students and of higher achievement of students in religious subjects.