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**MORAL AND RELIGIOUS PROBLEMS AND ATTITUDES  
AS EXPRESSED BY STUDENTS IN SEVENTH-DAY  
ADVENTIST ACADEMIES IN THE  
UNITED STATES AND CANADA**

**A Dissertation**  
**Presented in Partial Fulfillment**  
**of the Requirements for the Degree**  
**Doctor of Education**

**by**  
**Ingram Frank du Preez**

**July 1977**

**ABSTRACT**

**MORAL AND RELIGIOUS PROBLEMS AND ATTITUDES  
AS EXPRESSED BY STUDENTS IN SEVENTH-DAY  
ADVENTIST ACADEMIES IN THE  
UNITED STATES AND CANADA**

**by**

**Ingram Frank du Preez**

**Chairperson: Ruth R. Murdoch**

**ABSTRACT OF GRADUATE STUDENT RESEARCH**

**Dissertation**

**Andrews University**

**Department of Education**

**Title: MORAL AND RELIGIOUS PROBLEMS AND ATTITUDES AS EXPRESSED BY STUDENTS IN SEVENTH-DAY ADVENTIST ACADEMIES IN THE UNITED STATES AND CANADA**

**Name of researcher: Ingram F. du Preez**

**Name and title of faculty adviser: Ruth R. Murdoch, Ed.D.**

**Date completed: July 1977**

**Problem**

Adolescence is characterized by many problems of adjustment. Seventh-day Adventist youth cannot be expected to be immune to these problems. The purpose of the study was to ascertain the moral and religious problems and attitudes as perceived by students in Adventist academies. An attempt was also made to evaluate, from the students' viewpoint, the effectiveness of the provisions made by the academies to help meet these problems.

**Method**

Nineteen hundred and twenty students were chosen by a stratified random method from all enrollees in Seventh-day Adventist

academies in the United States and Canada. Students were asked to respond to the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church, an instrument designed by Martin in 1963, and updated and modified to meet the purposes of this study. The Inventory consists of fifty-eight statements which are designed to ascertain the problems and attitudes of students.

The method of data collection guaranteed anonymity to the responding students. Data collection was done by a responsible person designated by each school principal. Ninety-two percent of the schools and 94 percent of the students in participating schools responded. The t-test, chi-square, and analysis of variance were the statistical methods used in analyzing the data. An item analysis was included for data considered to form scales.

### Results

Most academy students consider twenty-one items in the Inventory to be problems. However, when considered as scales, for most academy students, Inventory subdivisions are not significant as problems.

Findings for the scales which measure attitudes indicate that most academy students (1) have conservative religious views, (2) desire an active religious experience, (3) are loyal to the church, and (4) want to be involved in church activities.

Most academy students are dissatisfied with the amount of help that the academy and church, through faculty, staff, and teachers, are giving them with their personal problems.

Most academy students are satisfied with the spiritual,



educational, social, and recreational activities provided to meet their needs and interests. However, their suggestions for improvement indicate that they perceive many weaknesses in these programs.

Students' definitions of dishonest behavior range far beyond the stereotyped "cheating, lying, stealing" syndrome. Responses show great moral sensitivity.

The item which encouraged students to discuss problems in their religious life which had not been mentioned in the Inventory drew excellent responses. Most students responding appear deeply concerned about their religious experiences.

Responses under the main hypotheses were compared, using eight variables for each of the items separately, and four variables for the attitude scales. Variables, significant for most of the items, were: school size, school type, sex, and grade.

#### Conclusions

Students in Adventist academies in the United States and Canada recognize that they have moral and religious problems. However, their attitudes toward religion and the church are positive.

They are dissatisfied with the help with their personal problems given them by the faculty and staff. They want more understanding and a narrowing of the communication gap. Nevertheless, they would not attend a public school if given the choice.

Most students are satisfied that the program of the academy and church meets their needs. However, they suggest that many improvements be made in the program.

Students in the western half of the United States have more

problems. Students in the eastern half and in Canada have fewer problems. Students in boarding schools and large schools have fewer problems. Students in small day schools have more problems. Boys have more problems than girls. Lower-grade students have more problems than upper-grade students.

It would appear that by working at problems revealed in this study, academy faculty and staff, and youth pastors could be much more effective in their efforts to help meet the needs of the youth of the Seventh-day Adventist Church.



MORAL AND RELIGIOUS PROBLEMS AND ATTITUDES  
AS EXPRESSED BY STUDENTS IN SEVENTH-DAY  
ADVENTIST ACADEMIES IN THE  
UNITED STATES AND CANADA

A dissertation presented  
in partial fulfillment of the requirements  
for the degree  
Doctor of Education  
by  
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The knowledge that the findings of this study will possibly be able to increase the effectiveness of educators, youth pastors, and others working for the young people of the Seventh-day Adventist church in these momentous times is sufficient reward for a long and arduous, but extremely enjoyable, task.

## CHAPTER I

### INTRODUCTION

Adolescence, that developmental period between puberty and adulthood, is characterized by many problems of adjustment (Stanton, 1974). These problems are aggravated by the increasing complexity of modern Western society and by the pressures caused by having to make major decisions of lifelong importance (Bronfenbrenner, 1974; Erikson, 1970; Milner, 1969; Spuck, Fruth & Magnuson, 1973). Such decisions are essential for the successful completion of the developmental tasks typical of this period of growth in the life of the individual (Cole & Hall, 1970; Garrison, 1965; Havighurst, 1972; Staton, 1963).

Adolescents are more vulnerable to stress than either adults or children because of their psycho-biological development and the extended period of dependency during adolescence (Mitchell, 1974; Solnit, 1973; Unwin, 1969; Wagner, 1970). Even though religion and other spiritual factors are important influences in personality development (Peatling, 1974; Peatling, Laabs & Newton, 1975), "there is no panacea for avoiding moral bewilderment . . . all factors that produce the adolescent personality simply lay the foundation for approaching the moral and spiritual issues of a lifetime" (Bernard, 1957, p. 394).

Seventh-day Adventist young people cannot be expected to be immune to the problems of adolescence. In fact, their difficulties may be more complex because their citizenship includes the additional

dimension of a life in the hereafter.

### Statement of the Problem

Seventh-day Adventists in the United States and Canada operate a well-organized parochial system of senior academies or high schools which provides for the education of over 18,000 adolescents (Reports of Seventh-day Adventist Directors of Education for the United States and Canada, 1976). Along with the usual academic program, counseling and youth-ministry services are offered in order to care for the educational, personal-emotional, social, vocational, moral, and spiritual needs of these youth.

In an attempt to investigate the moral, religious, and adjustment problems of academy young people, some studies have already been done (Dyer, 1961; Hardt, 1973; Lee, 1969; Martin, 1963; Phillips, 1962; Proctor, 1976; Walker, 1968; Wittschiebe, 1953). However, more accurate knowledge of these problems is needed by those working with Seventh-day Adventist young people. This study attacks the problem of presenting a broad picture of the problems and attitudes of academy students in the United States and Canada.

### Purpose of the Study

It was the purpose of this study to ascertain the moral and religious problems and attitudes perceived by students in a representative sample of Seventh-day Adventist senior academies in the United States and Canada, using the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church (see appendix 2). It also attempted to evaluate, from the students' viewpoint, the effectiveness



of the guidance and youth-ministry services provided by the academies to help meet these problems.

#### Need and Importance of the Study

Schools generally administer different types of psychological and personality tests which provide some information concerning the problems of teen-agers. The results are seldom published and are usually available only to a few of the faculty members of a particular school. For teachers, counselors, other guidance persons, and pastors who by the very nature of their work are dealing with the youth and their problems, more accurate knowledge of the problem world of Seventh-day Adventist young people is needed.

While studies have been made of certain Seventh-day Adventist academies in particular areas, no continent-wide study has been attempted. Unless this is done, there will be no broad frame of reference for all later surveys. Inferences made from them will not be valid for the population of Seventh-day Adventist youth in the United States and Canada as a whole.

The youth of the Seventh-day Adventist Church form a significant segment of this denomination. They are going through a special stage of development--adolescence--with its many problems and perplexities. The church, through its educational and pastoral programs, is endeavoring to provide enlightened, adequate, and effective help for its young members. Information secured from this study will, it is believed, be able to provide Seventh-day Adventists with some of the materials required in their programs for meeting the developmental needs of the thousands of youth within their ranks.

### Statement of Hypotheses

For each hypothesis and subhypothesis the dependent variable was measured by the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church.

The problem of the study was investigated by testing the following research hypotheses:

1. Academy students have problems in the area of morality and religion.
2. In the area of morality and religion, relationships with their God is a problem to academy students.
3. In the area of morality and religion, relationships with themselves is a problem to academy students.
4. In the area of morality and religion, relationships with their church is a problem to academy students.
5. Academy students are conservative in their religious views.
6. Academy students have a desire for an active religious experience.
7. Academy students are loyal to the church.
8. Academy students want to be involved in the activities of the church.
9. Academy students are satisfied that the academy and church, through faculty, staff, and teachers, are providing them with as much help with their personal problems as they really need.
10. Academy students are satisfied that their spiritual, educational, social, and recreational needs are being adequately met through the current educational and youth ministry programs of the Seventh-day Adventist Church.

### Subhypotheses

The following subhypotheses were also tested:

1, 9, 10. With respect to hypotheses 1, 9, 10 the problems of academy students varied in magnitude in accordance with the following moderator variables:

- (a) geographical regions
- (b) types of schools
- (c) boys and girls
- (d) boys in large boarding schools versus girls in large boarding schools
- (e) boys in small boarding schools versus girls in small boarding schools
- (f) boys in large day schools versus girls in large day schools
- (g) boys in small day schools versus girls in small day schools
- (h) grade levels

2-8. With respect to hypotheses 2 through 8, separately, the responses of academy students will differ in relation to the following moderator variables:

- (a) large and small schools
- (b) day and boarding schools
- (c) boys and girls
- (d) grade levels

### Basic Assumptions and Limitations

The study as here reported is posed on the following assumptions:

The Religious Inventory for Teen-age Youth of the Seventh-day

Adventist Church (Martin, 1963), used to gather the opinions of the subjects in this study, is valid and the opinions expressed in it are measurable.

Student responses to the instrument used are assumed to be sufficiently genuine for the purpose of the study.

The data of the study are based upon student written verbal responses rather than overt behavior.

#### Definition of Terms

For the purpose of clarity, several terms used in the study are defined.

The term academy refers to any Seventh-day Adventist high school where students are taught in grades nine through twelve.

The term attitude refers to a learned persistent tendency to behave in a consistent way toward a given class of stimuli.

The term conservatism refers to a tendency to adhere to established ways of behaving.

The term instrument refers to the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church.

The term moral is related to the distinction between right and wrong conduct.

The term opinion refers to an expressed attitude or judgment.

The term religious is related to attitudes, feelings, and values surrounding what one holds ultimate, and the ethical and liturgical practices which ensue.

A problem is considered to exist when the student has values and attitudes which are in conflict with the value system of his church and school.

The terms student, teen-ager, youth, teen-age youth, teens, young people refer to those students and other young people of academy age (grades nine through twelve).

The term S.D.A. refers to Seventh-day Adventist.

The term the church refers to the Seventh-day Adventist Church unless otherwise specified.

The term value refers to that quality of a thing in terms of worth, desirability, or importance.

### Organization of the Study

Chapter I consists of the Introduction. It explains the problem, the purposes and need of the study, the assumptions and limitations, and definitions of terms. It also sets out the hypothesis and organization of the study.

Chapter II presents a review of the literature.

Chapter III describes the population, sample, and test instrument. It delineates the procedures to be followed for the collecting, analyzing, and tabulating of the data.

Chapter IV presents and analyzes the data.

Chapter V surveys the problems that most trouble the students, their comments on the test items, and their responses to the open questions.

Chapter VI presents a summary of the report, conclusions reached, recommendations to those working with the youth, and recommendations for further research. Statistical tables, a map, appendices, and a bibliography complete the report.

## CHAPTER II

### REVIEW OF LITERATURE

#### Introduction

Many studies have been made concerning teen-age problems and attitudes. Much has also been written on adolescence as a problem period in the life of the individual. Only those studies which are related to the moral and religious problems and attitudes of young people were deemed significant to this study. The literature is further limited to high school students, including those who attended parochial or private schools. Only studies related to students at Seventh-day Adventist high schools or academies were deemed sufficiently significant for purposes of contrast and comparison.

Causes of adolescent conflict are identified in the context of the morality of adult society and of institutionalized religion, although other developmental and psychological factors cannot be excluded. Parent-youth conflict and the so-called "generation gap" are explored in the same way in order to relate these variables to the moral and religious life of teen-agers. An attempt has also been made to review such adolescent behaviors as drug abuse, drinking, sexuality, dishonesty, television viewing, theater attendance, dancing, devotion to rock music, novel reading, and racial prejudice in the context of moral and religious standards of conduct.

The first section of this chapter is a review of adolescent

studies which relate, in general, to moral and religious concerns. The second section reviews youth surveys done on a national or local scale. Both sections include studies done on youth in general, and on Seventh-day Adventist youth in particular. An extensive review of available related literature has been made. The wider studies provide useful general background for this study. The studies on Seventh-day Adventists furnish information for comparison and contrast.

A search of the literature revealed that in the fifties and sixties adults were mostly concerned with discovering the actual problems and attitudes of teen-agers. Studies in the seventies seem to be focusing on particular aspects of the adolescent scene such as adult-youth conflicts, the "generation gap," values, drug abuse, drinking, and sexuality. As far as can be ascertained from the literature, dishonesty (lying and cheating) is not perceived as an important problem by either adults or the teen-agers themselves.

#### Adolescent Conflict and Rebellion

##### Adolescence--Conflict or Adjustment?

Blos (1971) believes that adolescence is receiving increased attention because cultural conditions are favorable to the acceleration of social growth. According to Stanton (1974) most teen-agers experience some problems of adjustment, but it is inconsistent with the reality of adolescent development to use the generalized term "conflict."

After a factor analysis of data on 2,200 white and negro tenth-grade boys, Bloom (1970) concluded that it would be difficult to identify any single factor or combination of factors as an optimal

index of adolescent development and adjustment.

#### Causes of Conflict

Social. Population growth, urbanization, and the second industrial revolution are the chief reasons for the recent marked increases in the magnitude of cultural discontinuities in the life careers of the individual American young person. Much of the current behavior of adolescents is a reaction to these socially induced conflicts (Milner, 1969). On the other hand, in nontechnological societies where social goals and values are clearly understood and accepted, there is less adolescent-parent conflict. The young people in these societies are not confronted with having to choose from so many different occupations and life styles (Schiamberg, 1969).

In his plea for a broader approach to the treatment of adolescent problems, Minuchin (1969) says that the social structures in which adolescents function and the need for change in these structures must be considered. True dialogue with equality of power is needed between adults and youth. According to Bronfenbrenner (1974) "the evil and cure lie not in the victims of alienation but in the social institutions that produce alienation, and in their failure to be responsive to the most human needs and values of democratic society" (p. 61).

Moral. Eckerson (1969, p. 852) quotes the anthropologist Montagu as placing the blame of the teen-age problem squarely on the shoulders of the adults. He, Montagu, believes the problem arises from the adults' confusion and lack of understanding of the youth. When teen-agers are properly understood, their so-called rebelliousness will really be seen as acts of integrity as they endeavor to grow



in independence. Rogers (1969, p. 60) concurs with these statements of Montagu. He says that moral issues are many times involved in the causes of student alienation. The students point to the hypocrisy, injustice, and repression in much of the adult culture surrounding them. They are protesting a "slipping morality," according to Hanssen and Paulson (1972, p. 408).

Educational. Unwin (1969) and Wagner (1970) believe that the longer period required for education today lengthens the period of adolescence by delaying the time when the young person can become independent. This leads to less responsibility and overdependence on parents and thus causes frustration.

Psychological. According to Solnit (1973), the adolescent is pulled by regressional forces and pushed by maturational drives with resulting conflicts. Phillips and Szurek (1970) hypothesize that in today's society the satisfaction associated with early successful learning is reduced and distorted during each developmental phase, so that subsequent and continued learning is similarly affected. The inevitable frustration is generally expressed by the youth in the context of rebellion and alienation or overconformity.

Erikson (1970) believes that a certain amount of identity confusion, if not crisis, is beneficial at a certain stage of psychological development. But the youth in advanced industrial cultures, such as that in the United States, tend to reject the status quo, while at the same time they are disillusioned with the long-range results of revolution. This leads to a condition of confused rebellion, which may be characterized as "a revolt of the dependent" (p. 159). Spuck et al. (1973) agree with Erikson that in their search for identity,

students are in conflict with the traditional values of American society.

Mitchell (1974) declares that the moral dilemmas of early adolescence arise from the interaction between the stress generated by personal-internal growth and conflicts from social-external growth. These are the dilemmas of sexual behavior, independence, conscience, double standards, and conformity.

Munns (1971) states it more simply by saying that the reason for discord between youth and adults is that the mental development of youth is not complete in the teens. This view is supported by the theories of Erikson and Piaget.

Hedonistic. Yagoda's (1970) findings reveal that conflict in adolescence is essentially between controlling immediate needs for gratification and the delay of these impulses.

Other factors. In his study of one hundred early and late adolescent males and females, Yagoda (1970) found that girls showed greater conflict than boys. Underachievers had higher conflict, while above-average achievers had better control abilities.

Losciuto and Karlin (1972) found that sex and grade were the strongest predictors of dissidence among high-school students. On the other hand, race and religion were not significant factors.

#### The Generation Gap

Youth and the family. It seems clear to Bronfenbrenner (1974) "that the degree of estrangement between young people and adults in the United States is currently higher than it has been in other times. The causes lie in evolutionary changes in the American family" (p. 53).

Thousands of investigations over the past thirty years have identified family disorganization as the most important factor in behavior disorders and social pathology. This disorganization arises primarily "from the circumstances in which the family finds itself and from the way of life that is imposed on it by those circumstances" (p. 56).

Twenty years earlier Ausubel (1954) noted that often displaced aggression toward the parent in parent-youth conflict "may be directed against the church, resulting in a typical type of adolescent heresy" (p. 271). Thus the gap is really between parent and youth and not between the church and its youth. He believed that just as adolescence brought no great changes in moral structure, so it brought about no revolution in religious beliefs and activities (p. 268). Bernard (1957, pp. 310-11) suggested that the moral deviations of some of the youth should be emphasized less, and that more stress should be placed on the great majority of young people who make worthy moral decisions.

Youth and the church. In contrast to the 50 percent of Adventist youth who were apostatizing, 70 percent of confirmed Episcopalians left their church between the ages of seventeen and twenty-five. Both Protestants and Catholics were deeply concerned over the failure of the church to hold its youth (Youth Leave the Church, 1960).

Torkelson\* (1970) says the youth revolt because they are disenchanted and bewildered at the sham society that is "fat, smug, hypocritical and inhumane" (p. 3). Protestant teen-agers who had left the church gave as their most frequent reason, not enough youth activities, and as the second most frequent reason, hypocrisy by adults.

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\*S.D.A. author

Zbarachuk\* (1973) revealed that young Adventists leave the church for a variety of reasons: (a) the impersonal, not-caring attitude of older members, (b) the lives of adult members that looked phoney, (c) religion not making a difference in their own lives, (d) the desire not to be hypocrites, (e) "nonessentials" so important to some adults, (f) academy disciplinary methods, (g) religion not relevant to felt needs, (h) quality of sermons, and (i) lack of not thinking for themselves--everything handed out. It will be noted that none gave doctrinal reasons.

Youth and their peers. As a result of his studies of adolescents in the sixties, Stewart (1967) came to the conclusion that the establishment of the "adolescent society" with its own values, norms, and styles is not a rebellion against parents directly. It is rather a movement from conformity to the ideals, norms, and beliefs of parents to conformity to those of teen-agers. Weiner (1971) declares that the idea of a generation gap has often been fancifully overgeneralized into a youth culture characterized by widespread disaffection, rebellion, immorality, and drug use. For example, the drinking patterns of teen-agers, in most instances, closely resemble those of their parents and their surrounding community (Preston, 1968; Reister & Zucker, 1968). But "imitation cannot really be considered rebellion even if it may seem badly timed" (Bacon & Jones, 1968).

Attitudes. Numerous studies confirm that there is little or no evidence of a generation gap (Andersson, 1973; Bledsoe & Wiggins, 1973; Friesen, 1972; Hertel & Nelson, 1974; Hess & Goldblatt, 1957;

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\*S.D.A. author

Schuldermann & Schuldermann, 1971; Strommen, 1973, 1974; Strommen, Brekke, Underwager & Johnson, 1972; Vandenberg & Konrad, 1974; Weiner, 1971). However, both generations had faulty perceptions of the attitudes of the opposite generation.

After evaluating studies which assessed the attitudes of adolescents and adults toward contemporary issues, Lerner, Schroeder, Rewitzer, and Weinstock (1972) and Lerner and Weinstock (1972) came to the conclusion that differences reflect a difference in intensity of attitude rather than direction. Educational and social-class variables appear to influence the size of the "generation gap."

Identity crisis. Christantiello (1969) and Aldrich (1974) believe that parents and other adults can create the very problems they seek to avoid, or at least are equally at fault because they expect that a change in youthful manners will lead inevitably to a change in morals. But adolescence will be recognized as a normal phase of life if Erikson's theory of the identity crisis in adolescence is accepted (Yates, 1969).

Youth and society. From a review of American and Polish psychological literature, Polish investigator Pospiszyl (1970) found support for the basic thesis that the generation gap is the result of differences between the aims of society and the needs of youth. However, he provides no definite suggestions as to its prevention.

Youth and the schools. Propper, Kiaune, and Murray (1970) believe that there is strong evidence that Christian high schools are not immune to the "winds of change sweeping our universities and public high schools" (p. 314). They do admit, however, that further research in adolescent alienation is needed.

Adolescent Behavioral Patterns

## Religion

A study presented by a schoolmaster after thirty years of close observation of 1,250 adolescents (Chase, 1957) notes that

We adults often underestimate the adolescent's natural susceptibility to, and desire for, religion. Cynical as he may seem about structured religion or an Almighty deity, this is one of the central concerns of his life. It probably has never been, and may never again be, as important to him (p. 243).

Glasson (1965) concluded that religion can be a force, not a form. In a character research project, high-school students were most successful in carrying out their plans for goal implementation.

In a survey of recent research into the religious interests of American high-school youth, Bealer and Willets (1967) judged from available research that the best label applicable to teen-agers' religious orientation was "hedging," since many manifested neither nihilism nor commitment.

Lee\* (1968) studied pupil adjustment in Seventh-day Adventist academies in three Midwestern states. He found that the mean morality score of the well-adjusted group on the Personal Opinion Questionnaire was significantly higher than that of the maladjusted group (p. 63). It appears, in general, that well-adjusted students tend to choose the ethical and moral at best and to conform to church standards at worst. Seventy-three percent of the maladjusted group said that it was all right to go to a theater for a "good" movie, whereas only 18 percent of the well-adjusted group said so (p. 66).

Douglass (1969) believes that "today's youth doubtless are

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\* S.D.A. author

performing a great service to our nation in forcing us to examine the adequacy of our morality" (p. 307). In a challenge to religious education, Nelson (1969, p. 379) declares that a clash of cultures has arisen between the institutional church and many church-nurtured youth. They question the assumptions on which the church culture operates. For the current younger generation "morals are determined from within rather than by the church or government" (Moore, 1970, p. 49).

Twelfth-grade students in nine Seventh-day Adventist academies in the Northwest were surveyed by Noble\* (1971). He found that the students tend to believe church doctrines less than they know them. They also practice the principles of their religion less than they believe them. They tend to be critical of the religion instruction program and of other aspects of the school program. They also tend to rate their families as stronger than themselves in religiosity.

Dunn (1971) and Benson and Spilka (1973) found a generally favorable picture of the highly religious subgroups among students in Catholic high schools. They believe this indicates a definite relationship between religiosity and the development of personality.

Kroncke\* (1973) surveyed 359 students in the ninth and twelfth grades. They were divided into Seventh-day Adventists, Catholics, Lutherans, and public school students. He found that the majority declared religion to be a source of happiness, although there was a decline between the ninth and twelfth grades.

That religious thinking occupies an important place in the life of the adolescent is attested to by Peatling (1974) and Peatling

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\*S.D.A. author

et al. (1975). They compared religious thinking in students in Lutheran and Episcopal schools and in adults in Methodist Bible courses. Results indicated more rapid development in religious thinking between childhood and adolescence than between adolescence and adulthood.

#### Values and Morals

Vaughn's (1959) study of 180 sophomores and 155 seniors from a Lincoln, Nebraska, high school revealed that there is a value decline from the sophomore to the senior years, although there is no set pattern.

Traditionalism in high schools. Prince (1957, 1960) developed the Differential Values Inventory to test 1,195 freshmen and seniors from twenty-two Illinois high schools. He found that students with higher traditional value patterns had higher academic achievement than those who did not have high traditional values. This occurred in both public high schools and parochial high schools. There was very little change in values during the three-year interval. Thompson (1961, 1965) used the Differential Values Inventory to test high-school students in California and obtained the same results as Prince. In 1968, Thompson found that the socioeconomic level of the family was highly related to the personal value patterns of the freshmen, but that there was no difference for those same high-school students as seniors. Nevertheless, the predominant evidence tended to establish the assumption that there is a positive relationship between traditional values and lower socioeconomic status.



Traditionalism in Seventh-day Adventist high schools. Walker<sup>\*</sup>

(1969) studied 615 high-school seniors from eleven schools in eastern United States. Two were public high schools, four were Adventist boarding academies, and five were Adventist day schools. The Adventist seniors expressed higher traditional values than the public high-school seniors. The Adventist boarding-school seniors expressed higher traditional values than the Adventist day-school seniors. Contrary to expectations, seniors of the low socioeconomic group expressed higher traditional values than seniors of the high socioeconomic group. This applied to all schools. Seniors with more frequent church attendance and with good family rapport expressed higher traditional values. High traditional values appear to be related to family devotions, religious reading, discussion of religious matters in the home, guilt feelings, less meat in the diet, and less movie attendance, rock music, and television.

Traditionalism in public schools. Quist (1971) used Prince's (1957) Differential Values Inventory to explore the value patterns of public school sixth, eighth, and eleventh graders. He found that all grade levels were more traditional than emergent and that traditional scores increased with each grade level. Girls were more traditional than boys, but boys had higher emergent scores than girls. The higher achievers were more traditional than lower achievers. Those who spent time with friends were more emergent than those who spent time with family members.

Beech and Schoeppe (1974) used the Rokeach Value Survey

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(Rokeach, 1967) to assess the value systems of public-school students in grades five, seven, nine, and eleven. They found relative stability of the rankings over all grades, perhaps indicative of a core cultural pattern. Spuck et al. (1973) found that freshmen were more traditional than seniors, while teachers seemed to misperceive student attitudes in general.

Values and the family. Willets, Bealer, and Crider (1974) discovered that, in general, adherence to traditional attitudes increased with distance from the cities. According to Thornburg (1973) the center of an individual's initial value system lies within the family. A study by Acock and Bengtson (1976) reveals that parents exert more influence on their children than was popularly believed. Parental influence has a lot to do with a child's later behavior and attitudes. In the area of religion, actual behavior, not words, is the most effective means for transmitting religious values and behavior to a child. There is consistency between values and behavior during childhood. But with later growth discrepancies occur reaching a maximum during adolescence. This is an essential process in value formation.

Values and society. Settlage (1970) observed that rapid social change leads to a lack of conviction regarding values in society. Although all adolescents have contested the values of the preceding generation, says Canadian psychologist Duché (1974), current adolescents are confronting a value system in which even their parents have little faith.

Value formation--college or high school? In his study of college students, faculty, and parents in California, Coles\* (1973) found no significant differences, across class levels, in the opinions of college students about student behavior. It appeared possible that most freshmen had already established their opinions before coming to college. He, therefore, recommended that studies be done on the secondary level at two or three Adventist secondary schools frequently attended by his college subjects prior to their college experience. A study of both day and boarding schools could reveal which, or if both, were contributing to the change in student opinion (pp. 97, 98).

Liberalization. On studying the results of his investigation Hardt\* (1973) concludes that in general a liberalization has taken place in many of the attitudes of the students in regard to church standards. Many more students appear to be reading novels, going to dances, and attending movies than was the case ten years earlier in Martin's\* (1963) study.

Moral maturity. Proctor\* (1975) studied the moral development of 408 seniors at nine Adventist academies, four day and five boarding, in the Midwest. He used Kohlberg's Moral Judgment Interview. According to Kohlberg (1969), at stage 1 the child is oriented to obedience and punishment. At stage 2 moral growth becomes orientation to satisfaction of one's own needs. Stage 3 is identified by orientation to approval, and to pleasing and helping others. At stage 4 the orientation is to doing one's duty and to respect for authority and maintenance of the social order. Stages 3 and 4 are the conformity

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\* S.D.A. author

stages. Stage 5 is best described as a contractual-legalistic orientation. Duty is defined in terms of contract, and general avoidance of violation of the will or rights of others. At stage 6 the orientation is to conscience or to principles which can be applied universally. Conscience is a directing agent, together with mutual respect and trust.

Proctor found that females scored higher than males, and boarding-school students scored higher than day-school students in moral maturity tests. There was small variance in the stages used--all subjects, but one, were either at stage 2 or 3. The one exception was at stage 4. Other published studies generally indicate a higher mean moral maturity score for subjects of the same age or younger and usage of all stages from 1 through 5. Proctor's subjects were also at least four to five years behind other subjects of the same socioeconomic levels as far as moral development is concerned. According to him, a possible reason could be that fundamentalistic religious attitudes related to low moral development as measured by Kohlberg's scale. One must bear in mind that Kohlberg measures moral development by the students' ability to solve moral dilemmas, not by moral behavior itself.

#### Values Education

In the light of the foregoing findings, an interesting phenomenon emerged from the Union College Character Research Project 1962 Youth Congress (Thompson, 1966). It was indicated that youth who learned most in the six problem areas of life dealt with at the Congress actually made concrete decisions and showed change in their

value systems. Wright, Howard, DuBois, and Briggs (1973) reported that various teachers in public and parochial schools have used CRP (Character Research Project Curriculum) materials to insert positive character training into their particular class situations.

Roberts (1974) studied innovative governance patterns in twenty-five independent (private) schools around the country. He found that effective systems involving students in school governance are invariably honest, simple in structure, small, challenging, and based on a belief that some of the students do have high moral values and thus are capable of making important decisions. This is in accord with McBride's (1973) conviction that Kohlberg's developments can help in the development of a mature moral consciousness in teen-age students.

Benson (1974), writing on American ethics and independent schools, believes that "American independent schools could make themselves known and valued as ethics-teaching oases in the desert of our contemporary amorality" (p. 13).

#### Race

Fodor (1969) found no difference in level of moral judgment by race. Malpass and Symonds (1974) concluded that in value preferences social class differentiated groups more than race or sex. On the other hand, the blacks had higher preferences for religiousness than whites. In a cross-cultural analysis of the psychology of moral development in the United States and in four other widely differing cultures, Kohlberg concluded that his six stages of moral development

were not significantly affected by religious, social, or cultural conditions (Craig, 1972).

One should also keep in mind that there are many areas of differences between white and negro high-school students about home, school, religion, and morality. These reflected continuing differences in educational, social, and economic factors among the races. This was the finding of Schab (1968) in a comparison of one thousand white and one thousand negro high-school students. In a later study by Schab (1974), results indicated that white and black high-school students were not committed to school, home, or church. They were not completely satisfied with themselves. Sex and race made little difference in their responses.

#### Drug Abuse and Drinking

Holland (1963, p. 34) reported on a "Code for Teen-agers," which was the work of the students themselves, at an Oklahoma high school. They had "mixed-up feelings" and wanted to rebel against many things; nevertheless, they wanted to obey the code. According to them, smoking was undesirable and refusal to drink was a sign of maturity. Very little was known about narcotics and thus was not a problem to them at that time. They recommended double-dating and group entertainment, "for more protection," and frowned on "going steady."

Causes. A worker among drug users in San Francisco told Herrera\* (1970) that basic problems of inexperience, intense loneliness and anxiety among youth might lead to drug abuse. Teen-agers

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\*S.D.A. author

use drugs as coping mechanisms to face problems they have never been prepared to handle and for which there is no help around them. Religion can offer something to these youth who are rebelling against what they consider to be the hypocrisy of a straight society.

Listen News \* (1972) links drug abuse with the teen-age drinking problem and says that young, heavy drinkers "tend to be alienated from their parents and from traditional values" (p. 19). Religious institutions can prevent alcoholism and drug abuse by satisfying the basic emotional needs of the youth. Samuels and Samuels (1974) came to the conclusion that boredom, curiosity, and low self-concept are significant causes of drug abuse in many adolescents.

Incidence of drug abuse among Seventh-day Adventist youth.

World Temperance leader Steed\* (1972) says that drug abuse is unfortunately a problem among Adventist youth in some places. Parents are complacent and show a dangerous lack of concern about this problem, but the young people must be helped. In his study of two academies in a Midwestern state, Hardt\* (1973) found that approximately 14 percent of Seventh-day Adventist youth in these schools had had problems with drugs.

Incidence of drug abuse in public high schools. Surveys by Blumenfeld, Riester, Serrano, and Adams (1972) and Hays, Winburn, and Bloom (1975) show that one-fifth of public high-school students have used marijuana at least once. Another survey of public high-school students by Gelineau, Johnson, and Pearsall (1973) found that over 40 percent of their subjects had used drugs and 92 percent had used

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\* S.D.A. author

alcohol. Usage was constant across core, independent, and fringe communities. Along with Craig and Brown (1975) these investigators found that drug users tended to show less devotion to religion and to their families. They frequently endorsed drug use as a social problem rather than as a moral or legal problem. Galli (1974) discovered that while drug usage began to increase in the seventh grade, substantial increases occurred after this grade level, peaked in the ninth and tenth grades and decreased dramatically in the twelfth grade.

Attitudes of teen-agers towards drugs. One study found that while high-school drug users were very favorable to drugs and wanted their use legalized, nonusers were not opposed to drugs nor did they strongly disapprove of regular users (Tec, 1972). In a later study, the National Institute of Drug Abuse found that marijuana has been tried by 53 percent of high-school seniors and about a third of them use it. The survey revealed that young people generally recognize the addictive effects of alcohol and tobacco. They have very negative attitudes toward all illicit drugs except marijuana (Wall Street Journal, 1976).

Parental influence. Data suggest that, in most instances, the drinking patterns of teen-agers closely resemble those of their parents and their surrounding community (Preston, 1968; Riester & Zucker, 1968). Adolescents also model their drug use after parental use. It appears that adolescent use can be reduced only when parental use is reduced. This includes psycho-active drugs, alcohol, and tobacco (Smart & Fejer, 1972).



### Sexuality

In spite of all that has been said and written about the permissive teen-age society, studies by Cutright (1972) and Offer (1972) have produced no evidence that the adolescent population--American or non-American, white and non-white--is in the midst of a "sexual revolution." These studies cover the century 1870 to 1970 with particular reference to the past thirty years, 1940-1970.

### Dishonesty

Very few studies appear to have been made on honesty in adolescence since the Hartshorne and May study of character development in the early thirties. In an experiment, Piliavin, Hardyck, and Vadum (1968) discovered that low-cost boys cheated significantly more often than did high-cost boys. Low-cost boys were those who showed less concern than their peers (termed high-cost boys) for parental and teacher approval and for good school performance. Fodor (1972) found that cheating behavior showed no relation to level of moral development or to the subjects' perceptions of their parents' behavior. Cheating, lying, and stealing ranked low as expressed problems of Seventh-day Adventist youth (Dyer\*, 1961; Hardt\*, 1973; Martin\*, 1963; Phillips\*, 1962; Wittschiebe\*, 1953).

### Prejudice

Some studies have been done on the attitudes of high-school students toward other racial groups. Adorno, Frenkel-Brunswig, Levinson, and Sanford (1950, p. 209) in a detailed study on prejudice

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\*S.D.A. author

concluded that people who reject organized religion are less prejudiced than those who accept it. Petroni's (1972) conclusions that racist and prejudiced attitudes of adolescents exist across racial and ethnic lines regardless of age was confirmed by Glock, Wuthnow, Piliavin, and Spencer (1975). A twelve-year study of five thousand elementary and high-school students shows that racial, religious, and class prejudices are widespread among young Americans.

According to Hardt\* (1973), students seemed to be less prejudiced toward minority groups than the students of ten years earlier in Martin's\* (1963) study. This seems to bear out the findings of Adorno et al. (1950) that liberalization of attitudes toward religion also leads to less racial prejudice.

#### The Adolescent Culture

In Coleman's (1961) study of ten schools in northern Illinois, adolescence emerged as a subculture of its own, with its own code of conduct, dress, language, source of influence, and so forth--a culture of youth. Half his students preferred rock and roll music. However, two-thirds of the boys and three-quarters of the girls never smoked or drank. But a decade later a study by Sprinthall and Mosher (1971) seemed to question the concept of a separate youth culture. They studied the attitudes and perceptions of students in a private school, a suburban public school and an urban (working class) public school. The findings seem to be more an indication of a pluralistic society in which different adolescent subcultures are reflecting different adult

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\* S.D.A. author

communities. (The different schools reflect different communities.) There are different adolescents and their differences are predictable by school and social class. This is in keeping with the Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, and York (1966) report on equality of educational opportunity.

Most adolescents, intellectually at least, are not particularly critical of the educational ideals which shape their school experience, according to Sprinthall and Mosher (1971). Students may chafe, but they are significantly influenced in what they value, think, and do by the external system and by the hidden curriculum. Except for the private school, the "voices from the back of the classroom" are not for reform of educational ideals (p. 175). Most of the adolescents do not see school as an intellectual institution. If there is anything to the theory that adolescence is a stage during which a crystallization of attitudes and values occurs, then the school may simply be perpetuating existing differences across these social and economic classes rather than performing a function of convergence or change.

In describing the teen-age subculture of his day, Raphael (1969) said its values were "happiness through euphoric irresponsible noninvolvement, through objects, money, and status," and that there was little place for religion (p. 3). Some drinking and smoking served as acts of rebellion against authority. Some needs of the teen-ager included physical action, sexual gratification, personal approval, and adults who practiced what they preached.

Eve (1975) agrees that adolescents maintain a distinct set of values and norms from adults on several dimensions. Nevertheless, his findings indicate that this distinct value system is primarily conven-

tional in its orientation and differs only to a small degree from the value system of adults.

Pilder (1974) concluded that a counter-culture where love is possible needs to be developed through education. In this context the youth constitute the "hope for the future."

#### Effectiveness of Religious Education

A study of British children and youth (Hilliard, 1959) revealed that adolescents continued to take to religion to assist them in the development and maintenance of their moral ideas and standards of conduct. It was concluded that religious education deals effectively for the middle and later adolescents, especially with religio-moral principles and their application to current problems. Vaughn's (1959) study of 180 sophomores and 155 seniors in a Nebraska high school revealed that religion is also positively related to grade averages.

Private versus parochial schools. Using the Differential Values Inventory Prince (1959) tested private and parochial schools in the Chicago area. He found that, except for freshmen, the differences were significant. High traditional values show a very definite relationship to religious and church activity. Parochial schools have a definite positive influence on the beliefs, attitudes, and behavior of students who attend them (Boehm, 1962; Denny, 1962; Greely, 1964; Greely & Rossi, 1966; Hooley, 1974; Merz 1967; Rossi & Rossi, 1968), although Johnstone (1966) found that the home is still of primary importance in this respect. According to him, it is only children from "marginal" homes who benefit significantly from parochial school

education. It seems that the particular effect of the parochial school is to preserve attitudes already maintained (Hartnett & Centra, 1969).

Seventh-day Adventist schools. According to Lee\* (1968), attendance at an Adventist elementary school throughout the elementary years and having family worship at home during their childhood does not appear to differentiate between well- and maladjusted groups of high-school students. Mere exposure to religion at home and in school does not seem to influence adjustment in school (p. 70). From another study of Seventh-day Adventist students (Bartlett\*, 1970), it was concluded that neither dormitory or non-dormitory living during the academy years is a major factor influencing academic and church-related behavior during and immediately following college. And S.D.A.'s in public school often have values and attitudes more in harmony with the teachings of the church than students in the academies (Youth Attitude Survey, 1972).

Catholic schools. Though the findings of the study by Greely and Rossi (1966) were generally favorable to Catholic schools, it was emphasized in the report that the results were potentially inconclusive in nature. According to Delaney (1972), Catholic parochial schools are closing at an ever-increasing rate. One reason is that Catholics no longer hear the call to rescue young people from the public schools. They are satisfied that the public schools provide their children with quality education. Said one Catholic parent, "I am not sold as my father was on an education that gives so much time to preparation for the next world and regards this world as of little importance" (Delaney, 1972, p. 19).

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\*S.D.A. author

Lutheran schools. The results of Johnstone's (1966) study were generally interpreted as not very supportive of the effectiveness of Lutheran schools. In a later study of Lutheran school education, Brekke (1974) came to the conclusion that the beliefs of those who attended parochial schools were decidedly different. On the other hand, as far as changed attitudes and different behaviors were concerned, parochial schools demonstrated little impact. Cognitive impact seems to be the greatest, affective less, and behavioral the least.

Other Christian schools. Mulder (1973) used the Rokeach Value Survey (Rokeach, 1967) to study the value systems of 1,408 students, 664 parents, and 173 teachers in the Grand Rapids, Michigan, Christian School Association. Findings for his adolescents were: value systems of students differed according to (a) grade level, (b) achievements, and (c) religious orientations. They also differed from the value systems of parents and teachers.

Rosenbloom and Dobinsky (1968) felt that religious schools needed more research concerning their effectiveness so that needed changes could be made.

Moral values and the schools. In a selected Appalachian public school district, Butler (1973) found that more priority was given to moral values and less to competence values. Thus it seems that the question of religious schools versus public schools awaits further research.

Thornburg (1973) believes that value teaching during late childhood and early adolescence is highly important and that the educational system must bear the responsibility of directing the learner

into appropriate moral and social behavior. This is supported by Kohlberg's view that value education is a cognitive rather than a religious task (Sizer, 1975).

Metzcus, Holtz, and Florent (1975) discuss eight possible alternatives for Catholic education among which are critical period religious education and moral and value education. Lannie's (1975) opinion is that public education in the past had basic moral goals and the present points to the need to discuss value education in all types of educational systems--public, parochial, and Sunday schools.

### The Problems of Teen-agers

#### Characteristics of Youth Problems

Unwin (1969), commenting on Canada's "dissident youth," hypothesized that viewing youth problems as caricatures of "adult dilemmas and excesses" may help in identification of "those aspects of their protest which have validity . . . and could motivate us to prevent and correct the incongruities of our social system" (p. 10). During his involvement at a Youth Congress, Synder (1969) was struck by the fact that the social pressure of ridicule or unpopularity greatly accentuated the problem of ethical behavior.

Under the supervision of the Purdue Opinion Panel, Brown (1971) presented evidence to indicate that the problems and concerns of today's youth are quite different from previous generations. In addition, the intensity and frequency of adolescent problems had increased for both sexes in grades nine through twelve during the period 1956 to 1968.

Evans (1972) used the Mooney Problem Check List High School

Form (Mooney & Gordon, 1950) to investigate the personal-social problems of black-Americans, Mexican-Americans, and Anglo-Americans. There were no significant differences between the paired means, but there was a significant difference in three areas of the Check List. In general, it was concluded that the problems checked indicated the participation of these students in the larger American culture, as well as in the culture of their respective ethnic groups.

#### Problems of Major Concern to the Youth

Problems checked most frequently on the Mooney Problem Check List were interpersonal relations and school adjustment problems (Adams, 1964; Arnold & Mooney, 1943; Cary, 1948; Deiker & Pryer, 1973; Morgan, 1969; Phelps, 1973). Health and physical development, religious and moral problems, and home and family problems ranked last on the number of problems checked (Arnold & Mooney, 1943; Morgan, 1969).

There was a decline in the mean number of problems for older students (Deiker & Pryer, 1973; Morgan 1969). Both older and younger students were very concerned about interpersonal relations and self-concept. At the same time the older adolescents may become more concerned about certain aspects of the future such as marriage, sex, morals, and religion (Morgan, 1969).

Girls reported more problems than boys (Collins & Harper, 1974; Deiker & Pryer, 1973; Morgan, 1969; Phelps, 1973). Boys reported more problems concerned with educational adjustment. Girls reported more problems concerned with family adjustments and interpersonal relations with members of the opposite sex and with their own peer group (Adams, 1964; Collins & Harper, 1974; Norton, 1947).



### Other Youth Concerns

Jackson and Getzels (1959) and Spillman (1959) concluded that psychological health rather than scholastic achievement was relevant to an understanding of dissatisfaction with school. Schmuck (1965) pointed up concerns involving parents while Eppel and Eppel (1967) believed the major concern was in the establishment of satisfactory relationships. Social factors were also prominent in the findings of Brown (1971) and Douvan (1974).

### Religion as a Problem

North (1947) and Herald (1952) studied the problems of students in Michigan high schools and found that religion featured among the usual adolescent concerns of adjustment and human relationships.

### National Surveys of Teen-age Problems

These surveys provide a fairly accurate account of the moral and religious problems and attitudes as perceived and expressed by American adolescents. Of the general surveys, three will be discussed in some detail. Three surveys of church youth will be dealt with in the same way.

### General Surveys

#### The Remmers and Radler study of the American Teen-ager

In a seventeen year study of three thousand teen-agers, Remmers and Radler (1957) surveyed the thinking of American young people on a national scale. Teen-agers admitted they had problems and were anxious to discuss them with sympathetic listeners. They were religious and idealistic--89 percent said they wanted to know more

about religion. Most attended church weekly and prayed daily. The majority rejected evolution and accepted the Bible as God's inspired word. Nevertheless, the youth were afraid of democratic freedoms. They lacked self-discipline which was essential to character development. Outstanding characteristics were "a need and craving to be liked, drifting with the crowd, conformity, a kind of passive anti-intellectualism," according to the authors.

The Louis Harris and Associates  
poll

Life ran a feature article (Change, Yes--Upheaval, No, 1971) on a Louis Harris and Associates poll of a national cross-section of the twenty-six million Americans between the ages of fifteen and twenty-one. The poll showed that adolescents' views on a broad range of social questions were remarkably moderate, even conservative. They wanted change, not revolution. In the section on religion, 77 percent of high-school students felt that religion was important to them, and 58 percent attended church regularly. Sixty-nine percent of the youth felt that liberalized attitudes and new forms of worship made church more interesting to them. Forty-seven percent found more spiritual benefit in nature or in fellowship with others than in going to church. Eighty-two percent reported that their parents would be upset if they married someone of a different religion. Sixty-nine percent reported that their parents would be upset if they married someone of a different race. Of the books mentioned as having influenced their lives, the Bible led all those cited by almost three to one.

Sixty-three percent of the youth believed that modern society

overstresses the importance of sex for a happy life, and 96 percent believed in the importance of faithfulness between husband and wife. Seventy percent of high-school students did not want to see marijuana legalized. Seventy-five percent agreed that children should not be put in day-care centers while their mothers work. The youth averaged eleven hours of television watching per week. Fifty-seven percent wished there were more family-type movies. Eighty-four percent were satisfied with their education thus far and 66 percent intended to go to college.

The responses of these youth to the issues mentioned above were consistent with the finding that 81 percent felt their upbringing was about right. Seventy-three percent agreed with the values and ideals of their parents and accepted these values and ideals. Sixty-six percent said they had no difficulty in communicating with their parents.

Who's Who Among American High-School Students. Seventh Annual National Opinion Survey

In the 1976 Who's Who Among American High-School Students, 265,000 high achievers (juniors--average age, seventeen years) were featured. A survey was made of 50,000 of the students who had sent in their biographies. Over 24,000 returned their questionnaires. These formed the basis of the survey (Who's Who Among American High-School Students. Seventh National Opinion Survey, 1976).

More than half the students view television for less than eleven hours weekly. About half never drink beer or wine, and 59 percent never drink hard liquor, although three-quarters regard alcohol

as a dangerous drug. Most of those who do drink, do so only occasionally. Just over half report that their parents drink. Eighty percent never smoke cigarettes, while only 11 percent use marijuana regularly. Eighty-six percent report that their parents are not using drugs. Nearly 90 percent do not attend parties where students drink and use drugs. Two-thirds feel that marijuana should not be legalized.

At least four-fifths of the students feel no racial prejudice. Approximately the same number prefer traditional marriage, while 60 percent prefer their future husbands or wives to be virgins when they marry. Yet only 36 percent believe that premarital sex is not acceptable under any circumstances. Seventy-four percent report that they have never participated in sexual intercourse--66 percent because of their own moral standards and 26 percent because of religious prohibitions. Fifty-nine percent favor government-funded child-care facilities so that women can work. On the other hand, approximately the same number feel that full-time care of the home and children can be totally fulfilling.

Eighty-one percent of the young people consider themselves as members of an organized religion, while 84 percent believe in a personal God or Supreme Being. Only 12 percent indicate that religion does not play any significant role in their moral standards and actions. Almost half report that over the past three or four years religion has become more relevant to their beliefs, action, and personal philosophy. One-third report no change in this respect, while 14 percent say that religion has become less relevant. Three-quarters of the students believe that the philosophy and practices of their religious denominations are about right, and 64 percent attend religious services weekly.

The results of this survey of the leaders among the nation's high-school students reveal a continuing trend toward adherence to traditional moral values and high religious commitment.

### Surveys of Church Youth

#### The Lutheran Youth Research Study

Strommen's (1963) report of a four-year study from 1958-1962 of three thousand Lutheran youth is claimed to be unique in that it was the first reported attempt by the Lutheran faith to describe its youth, using survey data as the source of information. The data failed to support the assumption that adults have a fairly accurate picture of this age group. On the contrary, adults often hold a stereotyped image of their congregation's youth that weakens their perception of youth's uniqueness and individuality. A distorted, unrealistic image often tends to encourage an irrelevant approach to youth and their problems.

This study of Lutheran young people across the United States led to the conclusion that Christian youth recognized their spiritual failings and wanted help. The majority were not certain of God's forgiveness nor felt that they were saved by grace. They wanted help in how to study the Bible and how to pray. A high percentage found the Sunday morning services hard to follow. They were actually not as rebellious and critical of their elders as the adults tended to feel. They did not resent adult leadership, yet they did not get help because their elders were afraid of young people. They indicated that their greatest concern was social acceptance, followed by physical well-being, and religious values took third place.

The National Sunday School  
Association Survey

Zuck and Getz (1968, pp. 2, 156-61) reported a study made by the Research Commission of the National Sunday School Association. It extended from 1964 to 1967 and involved 3,145 teen-agers in 416 churches. Conclusions cannot be drawn from this study for the general population, as the sample was a select one of students attending church. Conclusions were as follows:

Teen-agers and their religious experiences. (a) Many were actively involved in religious practices--four out of five attended Sunday school and church every week, three out of four felt assured of their salvation, more than half had a sense of God's nearness, two out of three prayed once a day, one out of four read the Bible once a day. (b) Dissatisfaction with their spiritual lives was evident--one out of four were displeased with the following aspects of their Christian experience: Bible study, prayer, witnessing, and living up to Christian convictions. (c) Teens involved in daily Bible reading and prayer reported greater satisfaction in many aspects of their lives.

Teen-agers and their social experiences. (a) Compared with teens nationally, the youth in this study attended movies less frequently but were about the same in music-listening habits and in frequency of television viewing. (b) They were more concerned about their own personal problems than about their families, their churches, or their relationships with the opposite sex. (c) They were concerned more with getting along with others and feeling personally adequate. (d) The majority felt content with their homes. (e) Discontent with many aspects of teen-living was much higher among teens from discordant homes.

Areas of churches, goals, and morals. (a) The youth were fairly well satisfied with various church activities. (b) The majority felt that their church was giving them adequate help for their spiritual problems and adequate doctrinal instruction. (c) One out of four wanted more help from the church on dating and self-related problems. (d) Social and religious goals of these youth were ranked highest among eight classifications of values that intensively occupied the thinking of the teens. (e) The moral standards of the youth appeared to be quite high. (f) Generally the teens were quite consistent. The majority did not participate in those activities of which they disapproved.

The Youth Research Center Survey

The Youth Research Center Survey conducted a study in 1970 which involved 7,050 high-school students between the ages of fourteen and eighteen years. They represented two-thirds of the total population of American young people and were a nation-wide group randomly selected from more than a dozen denominations and Young Life participants. There were four parallel national samples also, numbering 3,934 subjects. Minority and inner-city groups and nonattending church youth were also included (Strommen & Gupta, 1971). The main group was said to have represented the voices of American church youth. Fifty-four percent were girls and 46 percent were boys. Eight hundred eleven rarely or never attended church, 6,239 sometimes or often did. Seven hundred thirty-two had parents who belonged to no church, while 6,088 had parents who did (Strommen, 1974, pp. 7-11).

A comparison of these youth revealed that church and nonchurch

youth are alike in their reactions to common adolescent problems such as: lack of parental understanding, dating problems, lack of self-confidence, academic problems, and classroom relationships. Church youth are less conservative--they favor progressive political action against obvious dishonesties. They are more people-oriented and display a liberal attitude toward the poor and oppressed.

Church youth differ from those outside in a sense of moral responsibility, a desire for a meaningful life, religious participation, social action, self-regard, feeling for people, God-awareness, and a positive orientation toward the congregation, youth group, and family. They identify more with parents--they have the same values, attitudes, and life qualities. It was concluded that evaluation of family relationships varies little between denominations.

There is also a contrast in life styles. Church youth indulge in less premarital sex, drinking, and drug use. The delay in gratification is apparently related to what they value and believe. A personal faith in Jesus Christ seems to make the difference between church youth and those outside the churches (Strommen, 1974, p. 9).

Today's youth seem to know more anxiety than those of former years and seem to have more freedom to speak their minds. Otherwise they do not appear to be unique. The "five cries of youth" (Strommen, 1974, p. 11) are claimed to be universal and timeless expressions of their needs and values. The five cries are: (1) The Cry of Self-hatred, (2) The Cry of Psychological Orphans, (3) The Cry of Social Protest, (4) The Cry of the Prejudiced, (5) The Cry of the Joyous. According to Strommen, this is the voice of American church-attending youth from more than a dozen church denominations.



Seventh-day Adventist Studies on Youth Problems

A Plea for Research on the Youth

In discussing the Strommen (1963) study, church editor Cottrell (1960) proposed that a similar thorough study of the contemporary attitudes and problems of Seventh-day Adventist teen-agers be undertaken. He said it was possible for adults to entertain an entirely artificial concept of the attitudes and problems of young people. Adults should go to them for information on how they, as a church, as teachers, as youth leaders, and as parents, "may more effectively fulfill our duty to them" (Cottrell, 1960, p. 5). Adults need to learn more particularly what the youth are thinking and why, so that they may be able to guide their teen-agers more effectively.

Youth editor Crandall (1964) felt that the greatest challenge to the church was to set in motion a survey and to study to find ways to halt the appalling apostasies among the youth. More than half were being lost to the church. They were never baptized or they dropped out after baptism. The adults should be as concerned about holding the youth as they are in winning new converts.

Such a study had already been done in the home town of Cottrell and Crandall by Wittschiebe (1953).

Some Major Research Studies

Wittschiebe's study

Wittschiebe (1953) surveyed the expressed problems of students in an Adventist college and an Adventist academy in Takoma Park, Maryland. The Mooney Problem Check List was administered to the students. He came to the conclusion that the effort to live Christian

lives, without a genuine understanding of the dynamics of conversion and sanctification, created tension and conflict for many of them. Thus, Adventist youth of college and academy age had more problems than similar groups of non-Adventists. They were more aware of their deficiencies and weaknesses because of the contrast between religious ideals and daily living.

#### Academy residences study

In a one-week period of counseling contacts, forty-six academy residence deans handled problems dealing with violation of campus regulations, social problems, personal adjustment, boy-girl relationships, scholastic and study problems, family difficulties, religious questions, vocational plans, health problems, finances, stealing, dishonesty, and deceit (Dyer, 1961, p. 120). By far the most frequent problems concerned social and personal adjustment (which included religious questions). Both men and women deans dealt with similar problems in their dormitories. Stealing, lying, and deceit were minor problems (p. 122). Girls sought counsel most often for personal problems (including religious questions) (p. 134).

#### Phillips's study

In a study done on 153 students at a Midwestern Adventist day academy, Phillips (1962) concluded that adolescents were concerned with religion but that religion itself caused many problems. He used the Mooney Problem Check List.

#### Martin's study

Phillips's study was followed by a study by Martin (1963) of

four Midwestern Adventist academies. He believed his study confirmed that Adventist teen-age youth have real and difficult problems of religious belief and experience. But they also have a deep desire to obtain a genuine religious experience and want to do right. They appear to be loyal to their church and anxious to take part in its activities when given an opportunity. They say their spiritual and educational needs are being met by the youth program of the church. However, their social and recreational needs still remain unsatisfied to some extent.

#### Hardt's study

A decade later, Hardt (1973) did a study of two Adventist academies in a different Midwestern state and compared his findings with those of Martin (1963). The most significant changes in youth attitudes were in the areas of church standards and personal religious life. The changes were in the direction of less belief in church doctrines, teachings, and activities. Examples given below point out these differences (Martin's study first): (1) I believe that Christ will come in my life-time (58 percent to 43 percent); (2) I believe God hears and answers my prayers (81 percent to 73 percent); (3) At home we regularly have family worship (40 percent to 32 percent); (4) Aside from family worship I regularly have devotions (36 percent to 19 percent); (5) I feel that popular dancing is wrong (64 percent to 44 percent); (6) I have trouble with swearing and dirty stories (29 percent to 41 percent); (7) I go to church because I think I should (70 percent to 36 percent); and (8) I enjoy Weeks of Prayer for they strengthen me spiritually (69 percent to 46 percent).

### Youth Questions and Answers

An analysis of the "Youth Questions and Answers" features of two Seventh-day Adventist missionary journals, These Times (Dart, 1961-1964) and Signs of the Times (Maxwell, 1969-1973; Winn, 1974) reveals that 268 questions covered fifty topics on moral and religious problems. They ranged from abortion and birth control to venereal disease and war. The largest number of questions, forty-eight, referred to the religious experience of the youth. Next were twenty-six questions about prayer, twenty-two about relations with their parents, and eighteen about the Bible. Sixteen questions concerned dating and thirteen were about marriage.

The studies done by Seventh-day Adventist researchers seem to corroborate these questions of Christian adolescents. The youth seem to be having moral and religious problems which disturb them. They sincerely desire assistance in solving their problems. However, one must bear in mind that the questions in the two journals referred to above, These Times and Signs of the Times, are not research studies. Nevertheless they seem to throw some light on the problems occupying the minds of Christian teen-agers.

### Frequency of Problems

Adjustment to school work ranked first, and morals and religion ranked last as youth problems in Wittschiebe's (1953) study. Phillips (1962) found that more problems were checked by girls than by boys. In Wittschiebe's (1953) study, boys had more school-related problems, whereas girls had more problems with personal-psychological relations. These findings are identical to those of students in general.

Summary of the Review of Literature

The purpose of this study was to provide information which will make possible a better understanding of adolescents and to add another dimension in the study of the expressed moral and religious problems and attitudes of students in Seventh-day Adventist parochial schools. An attempt has been made to limit the literature review to the sixties and seventies as far as possible. Adolescent conflict and behavioral patterns, the influence of parochial schools on students, and the expressed problems of teen-agers are examined. National surveys of youth in general and of church youth in particular are reviewed. Much has been written during the period under review but has been found to be only indirectly related to the problem being investigated. The studies on Seventh-day Adventist youth, while having some relevance to this study, are limited in their application. No national survey has been made of the moral and religious problems and attitudes of Seventh-day Adventist adolescents.

## CHAPTER III

### METHODOLOGY AND PROCEDURES

#### Methodology

##### The Research

The purpose of this study is to investigate the expressed moral and religious problems and attitudes of students in Seventh-day Adventist academies in the United States and Canada. The research is descriptive in nature.

##### The Sample and the Population

Of the ninety-one Seventh-day Adventist senior academies in the United States and Canada, forty-eight were randomly selected on a stratified basis from six geographical areas: Northwest, Southwest, Central, South, East, and Canada (figure 1). Where possible, at least two academies were randomly selected in each area from each of the following types of schools: large boarding academies, small boarding academies, large day academies, and small day academies (table 1). The division between large and small schools was arbitrarily fixed at 188 students. A completely randomized sample of five boys and five girls from each grade--freshmen, sophomore, junior, and senior--was selected from each academy to participate in the study. This provided a total of forty students in each of forty-eight academies, or a total of 1,920 students for the entire sample.

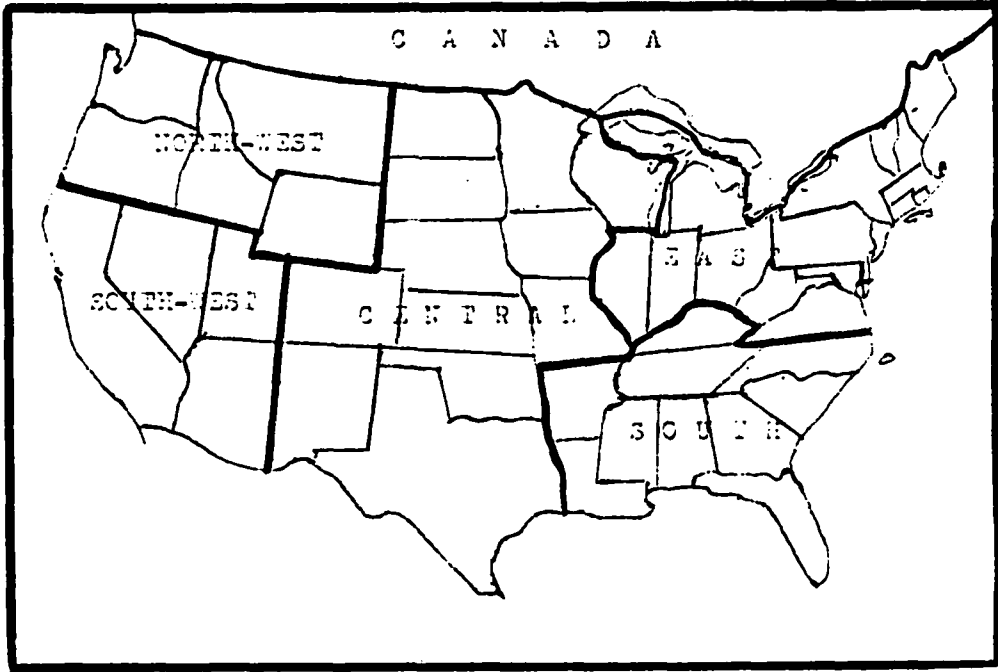


Figure 1. Geographical Areas

**TABLE 1**  
**ACADEMIES**

Area	Number of Academies	(a) Number of Academies Selected								(b) Number of Academies which Responded		Total Number of Academies	
		Large Boarding		Small Boarding		Large Day		Small Day		Total	Percent Selected	Percent Responded	
		(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
<b>Northwest</b>	9	2	1	1	1	2	2	0	0	5	4	55	44
<b>Southwest</b>	23	2	2	0	0	6	5	3	3	11	10	48	43
<b>Central</b>	14	2	2	5	4	1	1	2	2	10	9	71	64
<b>South</b>	16	2	2	3	3	1	1	2	2	8	8	50	50
<b>East</b>	24	3	2	3	3	2	2	3	3	11	10	46	42
<b>Canada</b>	5	2	2	0	0	0	0	1	1	3	3	60	60
<b>TOTAL</b>	91	13	11	12	11	12	11	11	11	48	44	53	48

Of the academies selected, 92 percent responded.



### The Instrument

The problems and characteristics of Seventh-day Adventist youth might have been studied with existing instruments of proven value such as the Allport-Vernon-Lindzey Study of Values, the Billet-Starr Youth Problems Inventory, the Mooney Problem Check List, or the SRA Youth Inventory. However, none of these instruments or any combination of them could provide as extensive information on Adventist youth as was desired. None could be as acceptable in Seventh-day Adventist academies as an instrument tailored for denominational use. Consequently, the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church was developed by Martin (1963). It yielded the particular information desired from Adventist youth and for Adventist leaders. Hardt (1973) used an updated version of Martin's instrument in his study of Adventist youth.

For this present study, a further updated version of Martin's questionnaire, Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church, was used. In this updated version of the instrument, all the statements were changed to read positively. The scale of marking was changed from "Yes," "No," and "Uncertain" to a scale of 1 through 5. Three items about movies, dancing, and Missionary Volunteer classwork were dropped because they were repetitive. Items 34-36 (on drugs, television, and sex) were substituted. Item 59 (dishonesty) was completely new. Otherwise, in content and format the instrument was essentially the same as the one developed by Martin and held to be valid by both Martin and Hardt. The instrument consisted of three sections: "You and Your God," "You and Yourself," and "You and Your Church." The students were to check the answers on a five-point scale

numbered 1 through 5, 1 being "strongly agree," 3 being "no opinion," and 5 being "strongly disagree." If they so desired, respondents could add further comments to any question. They could also circle the problems which most troubled them. Questions about drugs, sex, and television were added to the section "You and Yourself" as these have become an important part of the youth scene since 1963.

A pilot study, in which this questionnaire was used, was carried out on the students of Andrews University Academy in order to test the questionnaire for use in the main study. After some minor changes in the instructions and format and a change of wording in two items only (see next page for details), the questionnaire was ready for use in the larger study.

The questionnaire was set out so that its accompanying answer sheet could be read by the OPSCAN method for computer use (see appendix 2).

### Procedures

#### The Pilot Study

The investigator interviewed the principal of Andrews Academy, who agreed to the pilot study being done at his school. From the enrollment lists supplied, a random sample of seven boys and seven girls in each grade--freshman, sophomore, junior, and senior--was selected. The first five students available out of each list of seven participated in the study, a total of forty students in all. The completed questionnaires and answer sheets were placed in the large envelope supplied, and the envelope was sealed in the presence of the participants. Two of the students delivered the envelope to

the investigator. This procedure guaranteed anonymity to each student. The answers were as objective as was possible under these conditions.

The responses were analyzed and evaluated. Consequently, some alterations were made in the questionnaire in order to improve it for use in the main study. Question 11 was altered to read more positively because the students had difficulty answering it in its original form. Because very few students responded to question 54 in its original form, it was altered to an open question and placed last as item 60. Instead of giving instructions in three steps--two steps before questions 3-53 and the third step before questions 54-60--five steps were included in order to provide clearer instructions for the students--that is, step one before items 1 and 2, step two before items 3-53, step three after items 3-53 but referring to them again, step four before items 54-58, and step five before items 59 and 60.

#### The Main Study

The educational superintendents of the ten Union Conferences (administrative divisions of the Seventh-day Adventist Church in the United States and Canada) were asked to approve the project for their schools. (See description of sample and population on page 49).

The principals of the forty-eight schools selected were asked to participate in the project. If they agreed, they were asked to send their enrollment lists to the researcher. (One principal refused to participate, while another changed his mind after receiving the materials. Replacements were randomly chosen). The randomized selection of seven boys and seven girls from each grade--freshman, sopho-

more, junior, and senior-- was carried out, using the lists submitted. Of the students selected, the first five boys and five girls available of seven in each list by sex and grade, were to participate in the study. The selections were sent to the principals, along with the materials necessary for the test to be done. These materials consisted of the following: a letter of instructions to the supervisor of the test, a letter of instructions to each student, and a questionnaire and an answer sheet for each student. A self-addressed stamped envelope was included for the return of the questionnaires and answer sheets.

Many schools returned the materials within a short time. Reminders were mailed and telephone calls made to the rest until forty-four schools had responded by the final deadline imposed upon the researcher by circumstance and time. These responses were considered adequate for the study. Of the forty-four schools which responded (92 percent of the schools selected), there was a small amount of sample mortality. Of a possible 1,760 student responses (forty-four schools by forty students in each school), 1,654 were received. Of a possible 440 student responses in each grade (forty-four schools by ten students in each grade in each school), 418 freshmen, 405 sophomores, 424 juniors, and 407 seniors completed the survey. Also, the forty-four schools were equally divided among large boarding, small boarding, large day, and small day types (see table 1).

The Andrews University Computer Center provided assistance with the compiling and the analysis of data and the developing of suitable tables. The statistical findings are given in chapter IV. Chapter V is a survey of students' comments on items 3-53 and responses

to the open questions 54-60. In chapter VI, all data are summarized, conclusions are drawn, and recommendations are made for continuing study.

### Testing the Hypothesis

For each hypothesis and subhypothesis the dependent variable was measured by the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church.

The following hypotheses are stated in the null form for statistical testing:

#### Hypothesis 1

Academy students have no problems in the area of morality and religion.

This is a 51-fold hypothesis and the hypothesis was tested with respect to each problem separately. For questions 3-7, 9-15, 18, 22, 25, 37, 39, 41, 42, 50-53, a mean score of more than 3 on any question would cause the hypothesis to be rejected for that question. For questions 8, 16, 17, 19-21, 23, 24, 26-36, 38, 40, 43-49, a mean score of less than 3 on any question would cause the hypothesis to be rejected for that question.

For each of questions 3-53, separately, a one-tailed t-test was used to compare the sample mean with a hypothesized population mean of 3.

#### Hypothesis 2

In the area of morality and religion, relationships with their God is no problem to academy students.

It is considered that questions 3-15 form a scale of the students' relationships with their God. A mean of 39 (13x3) would be "no opinion." If the mean of the group was significantly more than 39 on a one-tailed t-test the hypothesis would be rejected. Question 8 was positive. Questions 3-7, 9-15 were negative.

### Hypothesis 3

In the area of morality and religion, relationships with themselves is no problem to academy students.

It is considered that questions 16-36 form a scale of the students' relationships with themselves. A mean of 63 (21x3) would be "no opinion." If the mean of the group was significantly more than 63 on a one-tailed t-test the hypothesis would be rejected. Questions 16, 17, 19-21, 23, 24, 26-36 were positive. Questions 18, 22, 25 were negative.

### Hypothesis 4

In the area of morality and religion, relationships with their church is no problem to academy students.

It is considered that questions 37-53 form a scale of the students' relationships with their church. A mean of 51 (17x3) would be "no opinion." If the mean of the group was significantly more than 51 on a one-tailed t-test the hypothesis would be rejected. Questions 38, 40, 43-49 were positive. Questions 37, 39, 41, 42, 50-53 were negative.

### Hypothesis 5

Academy students are not conservative in their religious views.

It is considered that questions 5-7, 10-12, 14-17, 19, 22, 25, 27, 28, 30, 33-36, 43, 45, 49, 50 form a scale of conservatism of religious views. A mean of 72 (24x3) would be "no opinion." If the mean of the group was significantly more than 72 on a one-tailed t-test the hypothesis would be rejected. Questions 5-7, 10-12, 14, 15, 22, 25, 28, 50 were positive. Questions 16, 17, 19, 27, 30, 33-36, 43, 45, 49 were negative.

#### Hypothesis 6

Academy students have no desire for an active religious experience.

It is considered that questions 3, 4, 6, 8-11, 14, 15, 20, 23, 24, 29, 31, 32, 41, 44, 51-53 form a scale of desire for an active religious experience. A mean of 60 (20x3) would be "no opinion." If the mean of the group was significantly more than 60 on a one-tailed t-test the hypothesis would be rejected. Questions 3, 4, 6, 8-11, 14, 15, 20, 23, 24, 41, 44, 51-53 were positive. Questions 29, 31, 32 were negative.

#### Hypothesis 7

Academy students are not loyal to the church.

It is considered that questions 17, 19, 21, 22, 25, 27, 28, 30, 34-39, 41, 43, 47, 52 form a scale of loyalty to the church. A mean of 54 (18x3) would be "no opinion." If the mean of the group was significantly more than 54 on a one-tailed t-test the hypothesis would be rejected. Questions 22, 25, 28, 37, 39, 41, 52 were positive. Questions 17, 19, 21, 27, 30, 34-36, 38, 43, 47 were negative.

Hypothesis 8

Academy students do not want to be involved in the activities of the church.

It is considered that questions 37, 38, 40-42, 44, 46, 48, 51, 52 form a scale of involvement in the activities of the church. A mean of 30 (10x3) would be "no opinion." If the mean of the group was significantly more than 30 on a one-tailed t-test the hypothesis would be rejected. Questions 37, 40-42, 44, 46, 48, 51, 52 were positive. Question 38 was negative.

Hypothesis 9

Academy students are not satisfied that the academy and church, through faculty, staff, and teachers, are providing them with as much help with their personal problems as they really need.

For question 54 a chi-square test was used in which the observed frequencies to responses Yes or No were compared to expected frequencies of  $\frac{N}{2}$  for each of these categories. If the chi-square was significant the null hypothesis would be rejected only if the proportion responding Yes was greater than the proportion responding No. This is a one-tailed test.

Hypothesis 10

Academy students are not satisfied that their spiritual, educational, social, and recreational needs are being fully met through the current educational and youth ministry programs of the Seventh-day Adventist church.

For each of questions 55-58, separately, a chi-square test was used in which the observed frequencies to responses Yes or No were



compared to expected frequencies of  $\frac{N}{2}$  for each of these categories. If the chi-square was significant the null hypothesis would be rejected only if the proportion responding Yes was greater than the proportion responding No. This is a one-tailed test.

### Testing the Subhypotheses

The following subhypotheses are stated in the null form for statistical testing:

#### Subhypothesis 1

With respect to hypothesis 1 (a 51-fold hypothesis) each problem is of equal magnitude for the following:

- (a) Students in different geographic regions
- (b) Students in different types of schools
- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools
- (e) Boys in small boarding schools versus girls in small boarding schools
- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

For each item 3-53, chi-square analyses were performed, separately, for each variable (a) through (h).

#### Subhypothesis 2

Relationships with their God is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

A Four-way Analysis of Variance by Unweighted Means (due to the unequal cells) was used with (a), (b), (c), and (d) as the four dimensions. The dependent variable was the total for items 3-15 (used for hypothesis 2).

### Subhypothesis 3

Relationships with themselves is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the total for items 16-36 (used for hypothesis 3). This subhypothesis was tested exactly as for subhypothesis 2.

### Subhypothesis 4

Relationships with their church is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the total for items 37-53 (used for

hypothesis 4). This subhypothesis was tested exactly as for subhypothesis 2.

#### Subhypothesis 5

Equally conservative religious views are expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the same total score as used for hypothesis 5. This subhypothesis was tested exactly as for subhypothesis 2.

#### Subhypothesis 6

An equally strong desire for an active religious experience is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the same total score as used for hypothesis 6. This subhypothesis was tested exactly as for subhypothesis 2.

#### Subhypothesis 7

An equal degree of loyalty to the church is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the same total score as used for hypothesis 7. This subhypothesis was tested exactly as for subhypothesis 2.

#### Subhypothesis 8

An equal desire to be involved in church activities is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the same total score as used for hypothesis 8. This subhypothesis was tested exactly as for subhypothesis 2.

#### Subhypothesis 9

An equal degree of satisfaction with help given in personal problems is expressed by the following:

- (a) Students in different geographic regions
- (b) Students in different types of schools
- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools

- (e) Boys in small boarding schools versus girls in small boarding schools
- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

On item 54 alone, chi-square analyses were performed, separately, for each variable (a) through (h).

#### Subhypothesis 10

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by the following:

- (a) Students in different geographic regions
- (b) Students in different types of schools
- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools
- (e) Boys in small boarding schools versus girls in small boarding schools
- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

For each of items 55-58, chi-square analyses were performed, separately, for each variable (a) through (h).

A .05 level of probability was used as the criterion for testing each of the hypotheses and subhypotheses.

Summary

This chapter described the methodology and procedures used in collecting and treating the data for the study. The sample, population, and survey instrument were described. Under procedures, a detailed description of the pilot study and the main study was given. The hypotheses and subhypotheses were stated in the null form. Statistical methods of testing the hypotheses and subhypotheses were described.

## CHAPTER IV

### PRESENTATION OF THE FINDINGS

#### Introduction

The study attempts to ascertain the moral and religious problems and attitudes of academy students. The data consist of students' responses to the survey instrument. This chapter, which analyzes and presents the data, has three sections: item analysis and data analyses for the hypotheses and subhypotheses. Hypotheses were formulated to discover the subjects' moral and religious problems and attitudes. Subhypotheses were formulated to compare various subgroups, using a number of moderator variables. For this study, a problem exists if the student has values and attitudes which conflict with the value system of his milieu. That an item is more or less of a problem does not imply a value judgment. It simply means that more or fewer students differed from the accepted value system than was expected.

#### Item Analysis

Hypotheses 2 through 4 deal with problems, by subdivisions of the instrument. Hypotheses 5 through 8 deal with students' attitudes, as shown by their responses to certain survey items. Items grouped under hypotheses 2 through 8 were assumed to form scales for statistical treatment of the hypotheses and subhypotheses. To test the assumption, an item analysis was needed.

Table 2 shows the mean, standard deviation, and reliability

**TABLE 2**  
**ITEM ANALYSIS**

	Original Form			Amended Form		
	Mean	Standard Deviation	Alpha	Mean	Standard Deviation	Alpha
<b>Scale for Hypothesis 2</b>	31.401	5.463	.6196	25.681	6.021	.7408
<b>Scale for Hypothesis 3</b>	60.654	9.613	.7016	50.987	9.363	.7185
<b>Scale for Hypothesis 4</b>	50.285	8.724	.7585	38.529	8.951	.8173
<b>Scale for Hypothesis 5</b>	78.563	10.951	.7430	63.123	10.622	.8083
<b>Scale for Hypothesis 6</b>	72.961	9.048	.7679	60.897	8.861	.8465
<b>Scale for Hypothesis 7</b>	59.040	10.047	.7654	50.145	9.610	.8030
<b>Scale for Hypothesis 8</b>	36.204	5.748	.7154	32.328	5.620	.7424



coefficient alpha for each scale, first in the original form, then, after the item analysis, in the amended form. The original included all items assumed to form scales. For a consistent scale, it is recommended that the point multi-serial correlation (PMS) for an item, that is, the correlation between scores on that item and total scores on the scale, be between .3 and .8. An item with a PMS between .2 and .3 would be retained if considered important for the content validity of the scale. The original scales were amended by dropping items with a low PMS. This led to changes in the means. The table shows that the dropping of items also led to an increase in reliability. Coefficients for the amended scales ranged from .7185 to above .8 and are very acceptable, particularly as the scales are short. On each scale a symmetrical distribution of scores was obtained (see tables 57 through 70, appendix 3).

Tables 3 through 9 give item analysis details as follows: column 1 gives the proportional response per student, that is, the proportion of the maximum response 5 given by the average student on that item; column 2 gives the initial PMS for the item; and column 3 gives the PMS for the item after the scale had been pruned of weak items.

Scale for hypothesis 2 (Relationships with God)

Table 3 shows the item analysis data for this scale.

Item 8 yielded a negative PMS in the first run. It was evident that the item should have been scored in the same direction as the other items, instead of the opposite direction as initially. This change was made, and a good positive PMS resulted in the second

**TABLE 3**  
**SCALE FOR HYPOTHESIS 2**

Items	Proportional Response per Student	Initial PMS	Amended PMS
3. God loves me.	.2495	.5456	.5769
4. God has forgiven my sins.	.3218	.5691	.5913
5. Jesus Christ will come during my lifetime.	.4507	.5100	.5212
6. Although God is love I believe He will not be able to save me if I have one known sin in my life.	.5878	.3329	.3132
7. Heaven is a real place.	.2614	.5306	.5699
8. I need to be closer to God.	.9204	-.3608	.5178
9. I would like to learn more about how to be saved.	.3830	.5083	.5363
10. God hears and answers my prayers.	.3233	.5851	.6275
11. I often worry about God's punishment at the time of the judgment.	.5031	.1050	
12. The Bible teaching of death as a sleep is clear to me.	.3578	.4411	.4541

**TABLE 3--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
13. Family worship is held regularly in our home.	.6270	.5053	.4759
14. Aside from family worship, I regularly have personal devotions.	.6212	.6462	.6586
15. In my personal devotions, I spend some time reading books by Ellen G. White.	.6734	.6307	.6541

analysis. Item 11 was omitted from the scale as its PMS was only .1050. This resulted in the number of items in the scale being reduced from 13 to 12, and the total for "no opinion" (3 on each item) being reduced from 39 to 36.

The point multi-serial correlation (PMS) of many of the items increased as a result of this pruning.

Scale for hypothesis 3 (Personal relationships)

Table 4 shows the item analysis data for this scale.

Items 18, 20, and 23 were omitted from the scale, as in each case the PMS was below .3. Although the PMS for item 28 was only .2195 the item was retained because it was considered to be important for the content validity of this scale. The omissions resulted in the number of items in the scale being reduced from 21 to 18, and the total for "no opinion" (3 on each item) being reduced from 63 to 54.

The PMS of many of the items increased after the pruning.

Scale for hypothesis 4 (Relationships with the church)

Table 5 shows the item analysis data for this scale.

Items 44, 46, and 48 were omitted from the scale, as in each case the PMS was below .3. Although the PMS for item 40 was only .2914, the item was retained because it was considered to be important for the content validity of this scale. The omissions resulted in the number of items in the scale being reduced from 17 to 14, and the total for "no opinion" (3 on each item) being reduced from 51 to 42.

The PMS of many of the items increased after this pruning.

**TABLE 4**  
**SCALE FOR HYPOTHESIS 3**

Items	Proportional Response per Student	Initial PMS	Amended PMS
16. It would be all right to tell a little lie in case of an emergency.	.5029	.3675	.4029
17. Sometimes I do what the crowd does even though I know it is wrong.	.6776	.4964	.4973
18. When I ask questions I would prefer having the "reasons why" rather than "Yes" and "No" answers.	.3328	.0618	
19. It's all right to attend good movies now and then in a theater if I select them carefully.	.6411	.4238	.4548
20. I need to develop more self-control.	.8050	.1710	
21. I am confused sometimes about my religious beliefs.	.6832	.4707	.4596
22. I have chosen not to read novels.	.6574	.3530	.3774
23. Sometimes I feel discouraged when I fail to reach my ideals.	.7956	.1766	

**TABLE 4--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
24. I am troubled with a guilty conscience even though I pray for forgiveness.	.6262	.4293	.4139
25. Popular dancing is wrong.	.5497	.3300	.3654
26. I have feelings against certain racial groups.	.4768	.3697	.3777
27. I have a problem determining between right and wrong music.	.5397	.3566	.3438
28. I feel self-conscious around non-Adventists.	.4846	.2195	.2057
29. I can't forget some of my mistakes in the past.	.7225	.3835	.3651
30. I have trouble with swearing and dirty stories.	.5323	.5809	.5882
31. I know I am doing something wrong but I can't change.	.6133	.4999	.5018
32. I am too sinful, God won't accept me.	.3701	.4345	.4521

**TABLE 4--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
33. Sometimes cheating in class is a temptation to me.	.6445	.4600	.4680
34. I have had some problems with drugs.	.3374	.3907	.3980
35. I have difficulty controlling what programs I watch on television.	.5660	.3495	.3402
36. Sometimes sex is a problem to me.	.5721	.4902	.4865

**TABLE 5**  
**SCALE FOR HYPOTHESIS 4**

Items	Proportional Response per Student	Initial PMS	Amended PMS
37. I go to church because I think I should.	.4984	.3646	.3886
38. I go to church because my parents make me.	.4582	.6188	.6409
39. The doctrines of the church are clear to me and I believe them.	.5089	.4689	.4872
40. Most sermons in church should be more youth-centered.	.7752	.2914	.2204
41. I go to church because I want to.	.4195	.6874	.7361
42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.	.7215	.4129	.3986
43. The church has too many restrictions.	.5418	.6182	.6319
44. We as youth need more opportunities to take a direct part in church activities.	.7724	-.0841	
45. The ideas of my parents are old fashioned.	.5185	.4714	.4677



TABLE 5--Continued

Items	Proportional Response per Student	Initial PMS	Amended PMS
46. More should be done in the church for teen-age youth.	.8245	.1669	
47. If I had the chance I would rather go to public school for my education.	.4125	.5313	.5646
48. I would like to see a teen-age youth club organized in my church.	.7543	-.0389	
49. There is a "generation gap" between the adults and the teen-agers.	.6797	.4447	.4217
50. Weeks of Prayer have lasting effects.	.6325	.5312	.5550
51. I enjoy Weeks of Prayer for they strengthen me spiritually.	.5073	.6672	.7080
52. I attend Sabbath School because I really want to.	.4809	.6666	.7158
53. Weeks of Prayer help me with my personal problems.	.5509	.6173	.6518

Scale for hypothesis 5 (Conservatism in religious views)

Table 6 shows the item analysis data for this scale.

Items 6, 11, 27, 28, and 35 were omitted from the scale, as in each case the PMS was below .3. This resulted in the number of items in the scale being reduced from 24 to 19, and the total for "no opinion" (3 on each item) being reduced from 72 to 57.

The PMS of many of the items increased after this pruning.

Scale for hypothesis 6 (Desire for active religious experience)

Table 7 shows the item analysis data for this scale.

Items 6, 11, 24, and 29 were omitted from the scale, as in each case the PMS was below .3. Although the PMS for item 31 was only .2690, the item was retained because it was considered to be important for the content validity of this scale. In the second analysis, the PMS for item 31 increased to .3231, further justifying its retention in the scale. The omissions resulted in the number of items in the scale being reduced from 20 to 16, and the total for "no opinion" (3 on each item) being reduced from 60 to 48.

The PMS of many of the items increased after this pruning.

Scale for hypothesis 7 (Loyalty to the church)

Table 8 shows the item analysis data for this scale.

Items 27, 28, and 35 were omitted from the scale, as in each case the PMS was below .3. This resulted in the number of items in the scale being reduced from 18 to 15, and the total for "no opinion" (3 on each item) being reduced from 54 to 45.

**TABLE 6**  
**SCALE FOR HYPOTHESIS 5**

Items	Proportional Response per Student	Initial PMS	Amended PMS
5. Jesus Christ will come during my lifetime.	.7493	.3486	.3575
6. Although God is love I believe He will not be able to save me if I have one known sin in my life.	.6122	.1833	
7. Heaven is a real place.	.9386	.3893	.4027
10. God hears and answers my prayers.	.8767	.4971	.5360
11. I often worry about God's punishment at the time of the judgment.	.6969	.1492	
12. The Bible teaching of death as a sleep is clear to me.	.8422	.3312	.3381
14. Aside from family worship, I regularly have personal devotions.	.5788	.5782	.6047
15. In my personal devotions, I spend some time reading books by Ellen G. White.	.5266	.6101	.6399

**TABLE 6--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
16. It would be all right to tell a little lie in case of an emergency.	.6971	.4850	.5067
17. Sometimes I do what the crowd does even though I know it is wrong.	.5224	.4029	.4054
19. It's all right to attend good movies now and then in a theater if I select them carefully.	.5589	.5767	.5900
22. I have chosen not to read novels.	.5426	.4916	.5101
25. Popular dancing is wrong.	.6503	.5199	.5347
27. I have a problem determining between right and wrong music.	.6603	.1355	
28. I feel self-conscious around non-Adventists.	.4846	.1568	
30. I have trouble with swearing and dirty stories.	.6677	.5140	.5332
33. Somtimes cheating in class is a temptation to me.	.5555	.3970	.4048
34. I have had some problems with drugs.	.8626	.4246	.4286

**TABLE 6--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
35. I have difficulty controlling what programs I watch on television.	.6340	.1831	
36. Sometimes sex is a problem to me.	.6279	.3417	.3328
43. The church has too many restrictions.	.6582	.5833	.6117
45. The ideas of my parents are old fashioned.	.6815	.4098	.4327
49. There is a "generation gap" between the adults and the teen-agers.	.5203	.4067	.4289
50. Weeks of Prayer have lasting effects.	.5675	.4299	.4503

**TABLE 7**  
**SCALE FOR HYPOTHESIS 6**

Items	Proportional Response per Student	Initial PMS	Amended PMS
3. God loves me.	.9505	.5480	.5615
4. God has forgiven my sins.	.8782	.5679	.5966
6. Although God is love I believe He will not be able to save me if I have one known sin in my life.	.6122	.1969	
8. I need to be closer to God.	.9204	.5159	.4893
9. I would like to learn more about how to be saved.	.8170	.5817	.5525
10. God hears and answers my prayers.	.8767	.6145	.6480
11. I often worry about God's punishment at the time of the judgment.	.6969	.0343	
14. Aside from family worship, I regularly have personal devotions.	.5788	.6312	.6616
15. In my personal devotions, I spend some time reading books by Ellen G. White.	.5266	.6149	.6447
20. I need to develop more self-control.	.8050	.3729	.3623

TABLE 7--Continued

Items	Proportional Response per Student	Initial PMS	Amended PMS
23. Sometimes I feel discouraged when I fail to reach my ideals.	.7956	.3175	.3042
24. I am troubled with a guilty conscience even though I pray for forgiveness.	.6262	.1547	
29. I can't forget some of my mistakes in the past.	.4775	-.0149	
31. I know I am doing something wrong but I can't change.	.5867	.2690	.3231
32. I am too sinful, God won't accept me.	.8299	.4246	.4877
41. I go to church because I want to.	.7805	.6837	.7151
44. We as youth need more opportunities to take a direct part in church activities.	.7724	.4407	.4313
51. I enjoy Weeks of Prayer for they strengthen me spiritually.	.6927	.7097	.7237
52. I attend Sabbath School because I really want to.	.7191	.6815	.7150
53. Weeks of Prayer help me with my personal problems.	.6491	.6531	.6656

**TABLE 8**  
**SCALE FOR HYPOTHESIS 7**

Items	Proportional Response per Student	Initial PMS	Amended PMS
17. Sometimes I do what the crowd does even though I know it is wrong.	.5224	.4184	.4068
19. It's all right to attend good movies now and then in a theater if I select them carefully.	.5589	.5660	.5848
21. I am confused sometimes about my religious beliefs.	.5168	.3838	.3712
22. I have chosen not to read novels.	.5426	.4812	.4940
25. Popular dancing is wrong.	.6503	.5119	.5391
27. I have a problem determining between right and wrong music.	.6603	.1649	
28. I feel self-conscious around non-Adventists.	.4846	.1432	
30. I have trouble with swearing and dirty stories.	.6677	.5339	.5338
34. I have had some problems with drugs.	.8626	.4754	.4808



**TABLE 8--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
35. I have difficulty controlling what programs I watch on television.	.6340	.2185	
36. Sometimes sex is a problem to me.	.6279	.3718	.3461
37. I go to church because I think I should.	.7016	.3372	.3687
38. I go to church because my parents make me.	.7418	.5708	.5949
39. The doctrines of the church are clear to me and I believe them.	.6911	.4986	.5137
41. I go to church because I want to.	.7805	.6618	.6961
43. The church as too many restrictions.	.6582	.5980	.6154
47. If I had the chance I would rather go to public school for my education.	.7875	.5408	.5665
52. I attend Sabbath School because I really want to.	.7191	.6393	.6706

The PMS of many of the items increased after this pruning.

Scale for hypothesis 8 (Involvement  
in church activities)

Table 9 shows the item analysis data for this scale.

Item 40 was omitted from the scale, as its PMS was only .2129. This resulted in the number of items in the scale being reduced from 10 to 9, and the total for "no opinion" (3 on each item) being reduced from 30 to 27.

The PMS of many of the items increased after this pruning.

Testing the Hypotheses

Hypothesis 1

Academy students have no problems in the area of morality and religion.

This is a 51-fold hypothesis, and the hypothesis was tested with respect to each problem, separately. For each item the difference between the sample mean and the hypothesized population mean of 3 was tested for significance. A one-tailed t-test was used for this comparison.

Table 10 shows the values of t and probability in testing the hypothesis for each of these 51 items.

The means for the responses to items 3 through 53 on the instrument were each found to be significantly different from 3. The null hypothesis for each item was supported or rejected, depending on the direction of the item. The direction of an item was considered to be positive when the responses "strongly agree" or "agree" indicated

**TABLE 9**  
**SCALE FOR HYPOTHESIS 8**

Items	Proportional Response per Student	Initial PMS	Amended PMS
37. I go to church because I think I should.	.7016	.4751	.4845
38. I go to church because my parents make me.	.7418	.6080	.6449
40. Most sermons in church should be more youth-centered.	.7752	.2129	
41. I go to church because I want to.	.7805	.7516	.7815
42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.	.4785	.3607	.3763
44. We as youth need more opportunities to take a direct part in church activities.	.7724	.5393	.5246
46. More should be done in the church for teen-age youth.	.8245	.3890	.3404
48. I would like to see a teen-age youth club organized in my church.	.7543	.5310	.5117

**TABLE 9--Continued**

Items	Proportional Response per Student	Initial PMS	Amended PMS
51. I enjoy Weeks of Prayer for they strengthen me spiritually.	.6927	.6468	.6659
52. I attend Sabbath School because I really want to.	.7191	.7403	.7650

**TABLE 10**  
**TEST OF HYPOTHESIS 1 FOR ITEMS 3 THROUGH 53**

<b>Item</b>	<b>Sample <math>\bar{X}</math></b>	<b>t</b>	<b>P</b>	<b>Direction of Item</b>	<b>Null Hypothesis Supported/Rejected</b>
3	1.2473	-134.5757	>.999	+	Supported
4	1.6088	- 72.0333	>.999	+	Supported
5	2.2497	- 34.1258	>.999	+	Supported
6	2.9371	- 1.8562	>.95	+	Supported
7	1.3071	-112.9743	>.999	+	Supported
8	1.3942	-101.3113	>.999	+	Supported
9	1.9148	- 50.9426	>.999	+	Supported
10	1.6167	- 70.6976	>.999	+	Supported
11	2.5157	- 16.8257	>.999	+	Supported
12	1.7872	- 53.1621	>.999	+	Supported
13	3.1348	3.9089	<.001	+	Rejected
14	3.1040	3.4321	<.001	+	Rejected
15	3.3652	11.9171	<.001	+	Rejected
16	3.4855	15.5152	>.999	-	Supported
17	2.6082	- 13.8176	<.001	-	Rejected
18	1.6620	- 61.7901	>.999	+	Supported

**TABLE 10--Continued**

<b>Item</b>	<b>Sample <math>\bar{X}</math></b>	<b>t</b>	<b>P</b>	<b>Direction of Item</b>	<b>Null Hypothesis Supported/Rejected</b>
19	2.7944	- 5.9276	<.001	-	Rejected
20	1.9734	- 42.7248	<.001	-	Rejected
21	2.5822	- 14.2799	<.001	-	Rejected
22	3.2872	9.7739	<.001	+	Rejected
23	2.0200	- 45.6130	<.001	-	Rejected
24	2.8652	- 4.5481	<.001	-	Rejected
25	2.7467	- 7.5640	>.999	+	Supported
26	3.6143	19.1479	>.999	-	Supported
27	3.3017	9.7565	>.999	-	Supported
28	3.5732	19.1138	>.999	-	Supported
29	2.3857	- 22.4673	<.001	-	Rejected
30	3.3349	10.4810	>.999	-	Supported
31	2.9335	- 2.2492	<.05	-	Rejected
32	4.1475	44.3566	>.999	-	Supported
33	2.7775	- 6.7711	<.001	-	Rejected
34	4.3132	44.8138	>.999	-	Supported
35	3.1681	5.1039	>.999	-	Supported

**TABLE 10--Continued**

<b>Item</b>	<b>Sample <math>\bar{X}</math></b>	<b>t</b>	<b>P</b>	<b>Direction of Item</b>	<b>Null Hypothesis Supported/Rejected</b>
36	3.1397	4.0807	>.999	-	Supported
37	2.4921	- 16.5606	>.999	+	Supported
38	3.7092	22.4230	>.999	-	Supported
39	2.5429	- 16.748	>.999	+	Supported
40	2.1239	- 35.2222	<.001	-	Rejected
41	2.0973	- 32.8917	>.999	+	Supported
42	3.6076	22.8919	<.001	+	Rejected
43	3.2908	9.8257	>.999	-	Supported
44	2.1378	- 37.2274	<.001	-	Rejected
45	3.4021	13.1509	>.999	-	Supported
46	1.8755	- 55.5567	<.001	-	Rejected
47	3.9359	29.2512	>.999	-	Supported
48	2.2267	- 33.1044	<.001	-	Rejected
49	2.5998	- 14.2302	<.001	-	Rejected
50	3.1590	5.3950	<.001	+	Rejected

**TABLE 10--Continued**

<b>Item</b>	<b>Sample <math>\bar{X}</math></b>	<b>t</b>	<b>P</b>	<b>Direction of Item</b>	<b>Null Hypothesis Supported/Rejected</b>
<b>51</b>	<b>2.5363</b>	<b>- 16.1181</b>	<b>&gt;.999</b>	<b>+</b>	<b>Supported</b>
<b>52</b>	<b>2.4045</b>	<b>- 21.2650</b>	<b>&gt;.999</b>	<b>+</b>	<b>Supported</b>
<b>53</b>	<b>2.7545</b>	<b>- 8.4264</b>	<b>&gt;.999</b>	<b>+</b>	<b>Supported</b>

**df for each item = 1653**



that the item was no problem to the students. The direction of an item was considered to be negative when the responses "strongly agree" or "agree" indicated that the item was a problem to the students.

The test items were formulated in the affirmative form in order to make it simpler for the students to respond to them. However, this meant that a particular response to an item could indicate a problem in one instance and no problem in another. For example: Item 4: "God has forgiven my sins." Response: "Agree." Finding: No problem. Direction: Positive. Item 35: "I have difficulty controlling what programs I watch on television." Response: "Agree." Finding: A problem. Direction: Negative. After careful examination of each item in this manner, it was classified as positive or negative in direction. With the exception of item 8, which had to be reclassified, the initial classification of the direction of the items was upheld by the PMS results of the item analysis.

Table 11 lists those items for which the null hypothesis was rejected. These are considered by academy students to be problems in the area of morality and religion.

Table 12 lists those items for which the null hypothesis was supported. These are not considered by academy students to be problems in the area of morality and religion.

#### Hypotheses 2 through 8

Table 13 shows the values of the sample mean, the hypothesized population mean,  $t$ , and probability in testing the scales for these hypotheses.

TABLE 11

**ITEMS WHICH ACADEMY STUDENTS CONSIDER TO BE PROBLEMS  
IN THE AREA OF MORALITY AND RELIGION**

- 
- 
13. Family worship is held regularly in our home.
  14. Aside from family worship, I regularly have personal devotions.
  15. In my personal devotions, I spend some time reading books by Ellen G. White.
  17. Sometimes I do what the crowd does even though I know it is wrong.
  19. It's all right to attend good movies now and then in a theater if I select them carefully.
  20. I need to develop more self-control.
  21. I am confused sometimes about my religious beliefs.
  22. I have chosen not to read novels.
  23. Sometimes I feel discouraged when I fail to reach my ideals.
  24. I am troubled with a guilty conscience even though I pray for forgiveness.
  29. I can't forget some of my mistakes in the past.
  31. I know I am doing something wrong but I can't change.
  33. Sometimes cheating in class is a temptation to me.
  40. Most sermons in church should be more youth-centered.
  42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.
  44. We as youth need more opportunities to take a direct part in church activities.
  46. More should be done in the church for teen-age youth.
  48. I would like to see a teen-age youth club organized in my church.
  49. There is a "generation gap" between the adults and the teen-agers.
  50. Weeks of Prayer have lasting effects.
-

TABLE 12

ITEMS WHICH ACADEMY STUDENTS DO NOT CONSIDER TO BE  
PROBLEMS IN THE AREA OF MORALITY AND RELIGION

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3. God loves me.
4. God has forgiven my sins.
5. Jesus Christ will come during my lifetime.
6. Although God is love I believe He will not be able to save me if I have one known sin in my life.
7. Heaven is a real place.
8. I need to be closer to God.
9. I would like to learn more about how to be saved.
10. God hears and answers my prayers.
11. I often worry about God's punishment at the time of the judgment.
12. The Bible teaching of death as a sleep is clear to me.
16. It would be all right to tell a little lie in case of an emergency.
18. When I ask questions I would prefer having the "reasons why" rather than "Yes" and "No" answers.
25. Popular dancing is wrong.
26. I have feelings against certain racial groups.
27. I have a problem determining between right and wrong music.
28. I feel self-conscious around non-Adventists.
30. I have trouble with swearing and dirty stories.
32. I am too sinful, God won't accept me.
34. I have had some problems with drugs.
35. I have difficulty controlling what programs I watch on television.
36. Sometimes sex is a problem to me.
37. I go to church because I think I should.
38. I go to church because my parents make me.
39. The doctrines of the church are clear to me and I believe them.
41. I go to church because I want to.
43. The church has too many restrictions.
45. The ideas of my parents are old-fashioned.

TABLE 12--Continued

- 
- 
47. If I had the chance I would rather go to public school for my education.
  51. I enjoy Weeks of Prayer for they strengthen me spiritually.
  52. I attend Sabbath School because I really want to.
  53. Weeks of Prayer help me with my personal problems.
- 
-

**TABLE 13**  
**TESTS OF SCALES FOR HYPOTHESES**  
**2 THROUGH 8**

	Sample Mean	Hypothesized Population Mean	t	p	Null hypothesis Supported/Rejected
<b>Scale for Hypothesis 2</b>	25.6814	36	-69.6769	>.999	Supported
<b>Scale for Hypothesis 3</b>	50.9873	54	-13.0823	>.999	Supported
<b>Scale for Hypothesis 4</b>	38.5290	42	-15.7661	>.999	Supported
<b>Scale for Hypothesis 5</b>	63.1233	57	23.4377	<.001	Rejected
<b>Scale for Hypothesis 6</b>	60.8972	48	59.1785	<.001	Rejected
<b>Scale for Hypothesis 7</b>	50.1451	45	21.7678	<.001	Rejected
<b>Scale for Hypothesis 8</b>	32.3277	27	38.5399	<.001	Rejected

**df for each item = 1653**

### Hypothesis 2

In the area of morality and religion, relationships with their God is no problem to academy students.

Items 3 through 15 were considered to form a scale of the students' relationships with their God. Table 13 shows the values of the sample mean, the hypothesized population mean,  $t$ , and  $p$  for the scale for hypothesis 2. Table 3 shows the items which formed the scale. (Item 11 was omitted.)

With 12 items in the scale, the mean score of the students must be significantly greater than 36 on a one-tailed  $t$ -test to reject the hypothesis. As the obtained mean was 25.6814, the null hypothesis is supported. The area "You and Your God" is not an overall problem to academy students.

### Hypothesis 3

In the area of morality and religion, relationships with themselves is no problem to academy students.

Items 16 through 36 were considered to form a scale of the students' relationships with themselves. Table 13 shows the values of the sample mean, the hypothesized population mean,  $t$ , and  $p$  for the scale for hypothesis 3. Table 4 shows the items which formed the scale (3 items were omitted).

With 18 items in the scale, the mean score of the students must be significantly greater than 54 on a one-tailed  $t$ -test to reject the hypothesis. As the obtained mean was 50.9873, the null hypothesis is supported. The area "You and Yourself" is not an overall problem to academy students.

#### Hypothesis 4

In the area of morality and religion, relationships with their church is no problem to academy students.

Items 37 through 53 were considered to form a scale of the students' relationships with their church. Table 13 shows the values of the sample mean, the hypothesized population mean, t, and p for the scale for hypothesis 4. Table 5 shows the items which formed the scale (3 items were omitted).

With 14 items in the scale, the mean score of the students must be significantly greater than 42 on a one-tailed t-test to reject the hypothesis. As the obtained mean was 38.5290, the null hypothesis is supported. The area of "You and Your Church" is not an overall problem to academy students.

#### Hypothesis 5

Academy students are not conservative in their religious views.

Items 5-7, 10-12, 14-17, 19, 22, 25, 27, 28, 30, 33-36, 43, 45, 49, and 50 were considered to form a scale of conservatism of religious views of the students. Table 13 shows the values of the sample mean, the hypothesized population mean, t, and p for the scale for hypothesis 5. Table 6 shows the items which formed the scale (5 items were omitted).

With 19 items in the scale, the mean score of the students must be significantly greater than 57 on a one-tailed t-test to reject the hypothesis. As the obtained mean was 63.1233, the null

hypothesis is rejected. Academy students are conservative in their religious views.

#### Hypothesis 6

Academy students have no desire for an active religious experience.

Items 3, 4, 6, 8-11, 14, 15, 20, 23, 24, 29, 31, 32, 41, 44, and 51-53 were considered to form a scale of the students' desire for an active religious experience. Table 13 shows the values of the sample mean, the hypothesized population mean,  $t$ , and  $p$  for the scale for hypothesis 6. Table 7 shows the items which formed the scale (4 items were omitted).

With 16 items in the scale, the mean score of the students must be significantly greater than 48 on a one-tailed  $t$ -test to reject the hypothesis. As the obtained mean was 60.8972, the null hypothesis is rejected. Academy students have a desire for an active religious experience.

#### Hypothesis 7

Academy students are not loyal to the church.

Items 17, 19, 21, 22, 25, 27, 28, 30, 34-39, 41, 43, 47, and 52 were considered to form a scale of the students' loyalty to the church. Table 13 shows the values of the sample mean, the hypothesized population mean,  $t$ , and  $p$  for the scale for hypothesis 7. Table 8 shows the items which formed the scale (3 items were omitted).

With 15 items in the scale, the mean score of the students must be significantly greater than 45 on a one-tailed  $t$ -test to reject



the hypothesis. As the obtained mean was 50.1451, the null hypothesis is rejected. Academy students are loyal to the church.

#### Hypothesis 8

Academy students do not want to be involved in the activities of the church.

Items 37, 38, 40-42, 44, 46, 48, 51, and 52 were considered to form a scale of the students' desire to be involved in the activities of the church. Table 13 shows the values of the sample mean, the hypothesized population mean,  $t$ , and  $p$  for the scale for hypothesis 8. Table 9 shows the items which formed the scale. (Item 40 was omitted)

With 9 items in the scale, the mean score of the students must be significantly greater than 27 on a one-tailed  $t$ -test to reject the hypothesis. As the obtained mean was 32.3277, the null hypothesis is rejected. Academy students want to be involved in the activities of the church.

#### Hypothesis 9

Academy students are not satisfied that the academy and church, through faculty, staff, and teachers, are providing them with as much help with their personal problems as they really need.

A chi-square test was used to test this hypothesis with reference to item 54. Table 14 shows the frequencies of "Yes" and "No" responses to this item, compared to expected frequencies of 50 percent in each category, that is, an equal number of satisfied and dissatisfied students.

TABLE 14

CHI-SQUARE ANALYSIS FOR ITEM 54  
FOR HYPOTHESIS 9

	Responses		Total
	Yes	No	
fo	701	906	1607
fe	803.5	803.5	

Chi-square = 26.1512 with 1 df and  $p < .001$

fo = observed frequencies

fe = expected frequencies

Since the proportion responding "No" was greater than the proportion responding "Yes," the null hypothesis is supported.

Academy students are not satisfied that the academy and the church, through faculty, staff, and teachers, are providing them with as much help with their personal problems as they really need.

Hypothesis 10

Academy students are not satisfied that their spiritual, educational, social, and recreational needs are being fully met through the current educational and youth ministry programs of the Seventh-day Adventist church.

A chi-square test was used to test this hypothesis with reference to each of items 55 through 58. Table 15 shows the frequencies of "Yes" and "No" responses to these items compared to expected frequencies of 50 percent in each category, that is, an equal number of

TABLE 15

**CHI-SQUARE ANALYSIS FOR ITEMS 55 THROUGH  
58 FOR HYPOTHESIS 10**

		Responses		Total
		Yes	No	
Item 55 (Satisfaction with spiritual activities)	fo	887	719	1606
	fe	803	803	

Chi-square = 17.5741 with 1 df and  $p < .001$

		Responses		Total
		Yes	No	
Item 56 (Satisfaction with educational activities)	fo	1061	551	1612
	fe	806	806	

Chi-square = 161.3524 with 1 df and  $p < .001$

		Responses		Total
		Yes	No	
Item 57 (Satisfaction with social activities)	fo	882	725	1607
	fe	803.5	803.5	

Chi-square = 15.3385 with 1 df and  $p < .001$

TABLE 15--Continued

		Responses		Total
		Yes	No	
Item 58	fo	911	694	1605
(Satisfaction with recreational activities)	fe	802.5	802.5	

Chi-square = 29.3389 with 1 df and  $p < .001$

satisfied and dissatisfied students.

Since, for each item, the proportion responding "Yes" was greater than the proportion responding "No," the null hypothesis is rejected in respect of each item. Academy students are satisfied that their spiritual, educational, social, and recreational needs are being fully met through the current educational and youth ministry programs of the Seventh-day Adventist church.

#### Testing the Subhypotheses

##### Subhypothesis 1

With respect to hypothesis 1 (a 51-fold hypothesis) each problem is of equal magnitude for the following:

- (a) Students in different geographic regions
- (b) Students in different types of schools
- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools
- (e) Boys in small boarding schools versus girls in small boarding schools



- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

For each of the above variables (a) through (h), chi-square analysis for a contingency table was performed separately for each of items 3 through 53. The observed frequencies to responses 1 through 5 on the scale of marking were compared to frequencies expected under the null hypothesis. Where chi-square for an item was found to be significant, the null hypothesis was rejected for that particular item, that is, the students do differ by the variable being tested in respect of that item.

#### Subhypothesis 1 (a)

Each problem is of equal magnitude for students in different geographic regions (see figure 1 for regions).

Table 16 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (geographic regions).

Chi-square was significant for ten items and approached significance for one item. The analysis for these items is given in tables 71 through 81 (see appendix 4).

Item 6. Although God is love I believe He will not be able to save me if I have one known sin in my life.

This was found to be more of a problem for students in the Southwest and the East, and less of a problem for students in the South, than for those in the Northwest, the Central region, and Canada (see table 71, appendix 4).

TABLE 16

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR GEOGRAPHIC REGIONS

Item	Chi-square	p	Significant at .05
3	12.3398	.904	NS
4	20.0045	.458	NS
5	18.1244	.579	NS
6	50.4101	<.001	S
7	8.9878	.983	NS
8	24.6461	.215	NS
9	22.5912	.309	NS
10	12.0116	.916	NS
11	37.3943	.010	S
12	22.2945	.325	NS
13	42.0586	.003	S
14	22.2353	.328	NS
15	21.9402	.344	NS
16	32.5246	.038	S
17	27.1707	.131	NS
18	15.9842	.718	NS
19	30.9053	.056	Approaching S
20	11.5921	.929	NS
21	23.3048	.274	NS
22	13.4399	.858	NS
23	26.9393	.137	NS
24	24.5105	.221	NS
25	13.6601	.847	NS
26	10.2466	.963	NS
27	12.6735	.891	NS
28	35.4128	.018	S
29	29.7183	.075	NS

.

TABLE 16--Continued

Item	Chi-square	p	Significant at .05
30	32.3418	.040	S
31	35.1763	.019	S
32	25.8166	.172	NS
33	26.2884	.156	NS
34	22.9185	.298	NS
35	22.0959	.335	NS
36	29.9352	.071	NS
37	25.8927	.169	NS
38	19.4798	.491	NS
39	35.2573	.019	S
40	48.9673	<.001	S
41	12.4934	.898	NS
42	36.3594	.014	S
43	14.6934	.794	NS
44	23.2046	.279	NS
45	12.0595	.914	NS
46	19.2558	.505	NS
47	26.2532	.158	NS
48	27.9179	.111	NS
49	18.1733	.576	NS
50	30.2105	.067	NS
51	13.1879	.869	NS
52	13.1890	.869	NS
53	16.9785	.654	NS

For each item in this table,  $df = 20$

.

Item 11. I often worry about God's punishment at the time of the judgment.

This was found to be more of a problem for students in the Northwest and the Central region, and less of a problem for students in the South and the East, than for those in the Southwest and Canada (see table 72, appendix 4).

Item 13. Family worship is held regularly in our home.

This was found to be more of a problem for students in the Northwest and the Southwest, and less of a problem for students in the East and Canada, than for those in the Central region and the South (see table 73, appendix 4).

Item 16. It would be all right to tell a little lie in case of an emergency.

This was found to be more of a problem for students in the Southwest, and less of a problem for students in the Central region and the South, than for those in the Northwest, the East, and Canada (see table 74, appendix 4).

Item 19. It's all right to attend good movies now and then in a theater if I select them carefully.

(This item was included for analysis because it approached significance;  $p = .056$ ).

This was found to be more of a problem for students in the Southwest, and less of a problem for students in the South, than for those in the Northwest, the Central region, and Canada (see table 75, appendix 4).

Item 28. I feel self-conscious around non-Adventists.

This was found to be more of a problem for students in the



South, and less of a problem for students in the Central region, than for those in the Northwest, the Southwest, the East, and Canada (see table 76, appendix 4).

Item 30. I have trouble with swearing and dirty stories.

This was found to be more of a problem for students in the Central region, and less of a problem for students in the Southwest, and Canada, than for those in the Northwest, the South, and the East (see table 77, appendix 4).

Item 31. I know I am doing something wrong but I can't change.

This was found to be more of a problem for students in the Central region, and less of a problem for students in the East, than for those in the Northwest, the Southwest, the South, and Canada (see table 78, appendix 4).

Item 39. The doctrines of the church are clear to me and I believe them.

This was found to be more of a problem for students in the Northwest and the Central region, and less of a problem for students in the South and the East, than for those in the Southwest, and Canada (see table 79, appendix 4).

Item 40. Most sermons in church should be more youth-centered.

This was found to be less of a problem for students in the Northwest and the Central region, than for those in the Southwest, the South, the East, and Canada (see table 80, appendix 4).

Item 42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.

This was found to be more of a problem for students in the Northwest, the East, and Canada, and less of a problem for students in the Southwest, than for those in the Central region and the South (see table 81, appendix 4).

Subhypothesis 1 (b)

Each problem is of equal magnitude for students in different types of schools (see table 1 for types of schools).

Table 17 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (types of schools).

Chi-square was significant for twenty-four items. The analysis for these items is given in tables 82 through 105 (see appendix 4).

Item 4. God has forgiven my sins.

This was found to be more of a problem for students in large day schools, and less of a problem for students in large boarding schools, than for those in small boarding schools and small day schools (see table 82, appendix 4).

Item 5. Jesus Christ will come during my lifetime.

This was found to be more of a problem for students in small day schools, and less of a problem for students in small boarding schools, than for those in large boarding schools and large day schools (see table 83, appendix 4).

Item 8. I need to be closer to God.

This was found to be more of a problem for students in small day schools, than for those in large boarding schools, small boarding schools, and large day schools (see table 84, appendix 4).

Item 9. I would like to learn more about how to be saved.

TABLE 17

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR TYPES OF SCHOOLS

Item	Chi-square	p	Significant at .05
3	13.3670	.343	NS
4	21.7134	.041	S
5	22.6859	.031	S
6	18.7413	.095	NS
7	12.8879	.377	NS
8	24.9662	.015	S
9	39.9362	<.001	S
10	7.2163	.843	NS
11	19.4858	.077	NS
12	15.4032	.220	NS
13	19.3571	.080	NS
14	14.2074	.288	NS
15	38.4623	<.001	S
16	39.8960	<.001	S
17	30.4724	.002	S
18	6.7918	.871	NS
19	32.8514	.001	S
20	32.3087	.001	S
21	17.2605	.140	NS
22	18.5039	.101	NS
23	24.8590	.016	S
24	15.4400	.218	NS
25	30.0934	.003	S
26	12.0208	.444	NS
27	15.4857	.216	NS
28	12.5050	.406	NS
29	18.7902	.094	NS

TABLE 17--Continued

Item	Chi-square	p	Significant at .05
30	16.5924	.166	NS
31	11.2395	.509	NS
32	22.6527	.031	S
33	10.4598	.576	NS
34	16.9476	.152	NS
35	28.9524	.004	S
36	41.5436	<.001	S
37	14.9686	.243	NS
38	13.2681	.350	NS
39	19.9672	.068	NS
40	23.0978	.027	S
41	19.2636	.082	NS
42	30.2279	.003	S
43	30.6106	.002	S
44	28.7771	.004	S
45	25.3289	.013	S
46	18.3160	.106	NS
47	22.4086	.033	S
48	52.3978	<.001	S
49	11.4684	.489	NS
50	31.1315	.002	S
51	58.5426	<.001	S
52	10.3306	.587	NS
53	62.0879	<.001	S

For each item in this table, df = 12

This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools and small boarding schools, than for those in large day schools (see table 85, appendix 4).

Item 15. In my personal devotions, I spend some time reading books by Ellen G. White.

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students in large boarding schools and small boarding schools (see table 86, appendix 4).

Item 16. It would be all right to tell a little lie in case of an emergency.

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students in large boarding schools and small boarding schools (see table 87, appendix 4).

Item 17. Sometimes I do what the crowd does even though I know it is wrong.

This was found to be more of a problem for students in small boarding schools, and less of a problem for students in large boarding schools and large day schools, than for those in small day schools (see table 88, appendix 4).

Item 19. It's all right to attend good movies now and then in a theater if I select them carefully.

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students

in large boarding schools and small boarding schools (see table 89, appendix 4).

Item 20. I need to develop more self-control.

This was found to be more of a problem for students in large boarding schools and small boarding schools, and less of a problem for students in large day schools and small day schools (see table 90, appendix 4).

Item 23. Sometimes I feel discouraged when I fail to reach my ideals.

This was found to be more of a problem for students in large boarding schools and small boarding schools, and less of a problem for students in large day schools and small day schools (see table 91, appendix 4).

Item 25. Popular dancing is wrong.

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students in large boarding schools and small boarding schools (see table 92, appendix 4).

Item 32. I am too sinful, God won't accept me.

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students in large boarding schools, than for those in small boarding schools (see table 93, appendix 4).

Item 35. I have difficulty controlling what programs I watch on television.

This was found to be more of a problem for students in large boarding schools and small boarding schools, and less of a problem

for students in large day schools and small day schools (see table 94, appendix 4).

Item 36. Sometimes sex is a problem to me.

This was found to be more of a problem for students in large boarding schools and small boarding schools, and less of a problem for students in large day schools and small day schools (see table 95, appendix 4).

Item 40. Most sermons in church should be more youth-centered.

This was found to be more of a problem for students in small boarding schools, and less of a problem for students in small day schools, than for those in large boarding schools and large day schools (see table 96, appendix 4).

Item 42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.

This was found to be more of a problem for students in small boarding schools and small day schools, and less of a problem for students in large boarding schools and large day schools (see table 97, appendix 4).

Item 43. The church has too many restrictions.

This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools, than for those in small boarding schools and large day schools (see table 98, appendix 4).

Item 44. We as youth need more opportunities to take a direct part in church activities.

This was found to be more of a problem for students in large

boarding schools, and less of a problem for students in small day schools, than for those in small boarding schools and large day schools (see table 99, appendix 4).

Item 45. The ideas of my parents are old-fashioned.

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students in large boarding schools and small boardings schools (see table 100, appendix 4).

Item 47. If I had the chance I would rather go to public school for my education.

This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools and small boarding schools, than for those in large day schools (see table 101, appendix 4).

Item 48. I would like to see a teen-age youth club organized in my church.

This was found to be more of a problem for students in large boarding schools and small boarding schools, and less of a problem for students in large day schools and small day schools (see table 102, appendix 4).

Item 50. Weeks of Prayer have lasting effects.

This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools, than for those in small boarding schools and large day schools (see table 103, appendix 4).

Item 51. I enjoy Weeks of Prayer for they strengthen me spiritually.



This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools, than for those in small boarding schools and large day schools (see table 104, appendix 4).

Item 53. Weeks of Prayer help me with my personal problems.

This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools, than for those in small boarding schools and large day schools (see table 105, appendix 4).

#### Subhypothesis 1 (c)

Each problem is of equal magnitude for boys and girls.

Table 18 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (boys and girls).

Chi-square was significant for thirty-one items. The analysis for these items is given in tables 106 through 136 (see appendix 4).

Item 3. God loves me.

This was found to be more of a problem for boys and less of a problem for girls (see table 106, appendix 4).

Item 4. God has forgiven my sins.

This was found to be more of a problem for boys and less of a problem for girls (see table 107, appendix 4).

Item 7. Heaven is a real place.

This was found to be more of a problem for boys and less of a problem for girls (see table 108, appendix 4).

Item 8. I need to be closer to God.

TABLE 18

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR BOYS AND GIRLS

Item	Chi-square	p	Significant at .05
3	15.2402	.004	S
4	11.8424	.019	S
5	4.2271	.376	NS
6	2.5869	.629	NS
7	9.6026	.048	S
8	13.2724	.010	S
9	8.1113	.088	NS
10	25.9773	<.001	S
11	35.1337	<.001	S
12	7.0151	.135	NS
13	5.7720	.217	NS
14	9.9817	.041	S
15	5.0608	.281	NS
16	12.8339	.012	S
17	12.0175	.017	S
18	6.6419	.156	NS
19	10.0987	.039	S
20	20.5200	<.001	S
21	28.3760	<.001	S
22	8.8313	.065	NS
23	20.4465	<.001	S
24	11.0099	.026	S
25	5.6034	.231	NS
26	38.5462	<.001	S
27	8.4562	.076	NS
28	28.5593	<.001	S
29	18.5677	.001	S

TABLE 18--Continued

Item	Chi-square	p	Significant at .05
30	69.2385	<.001	S
31	1.1697	.883	NS
32	2.5234	.640	NS
33	7.9678	.093	NS
34	7.3355	.119	NS
35	4.0702	.397	NS
36	74.2881	<.001	S
37	7.8039	.099	NS
38	10.2279	.037	S
39	14.7069	.005	S
40	25.4898	<.001	S
41	33.6775	<.001	S
42	3.2007	.525	NS
43	7.0048	.136	NS
44	33.0111	<.001	S
45	13.3064	.010	S
46	25.5480	<.001	S
47	13.5255	.009	S
48	26.4398	<.001	S
49	2.2944	.682	NS
50	2.1084	.716	NS
51	12.9590	.011	S
52	11.3045	.023	S
53	18.8426	.001	S

For each item in this table,  $df = 4$ .

This was found to be more of a problem for boys and less of a problem for girls (see table 109, appendix 4).

Item 10. God hears and answers my prayers.

This was found to be more of a problem for boys and less of a problem for girls (see table 110, appendix 4).

Item 11. I often worry about God's punishment at the time of the judgment.

This was found to be more of a problem for boys and less of a problem for girls (see table 111, appendix 4).

Item 14. Aside from family worship, I regularly have personal devotions.

This was found to be more of a problem for boys and less of a problem for girls (see table 112, appendix 4).

Item 16. It would be all right to tell a little lie in case of an emergency.

This was found to be more of a problem for boy and less of a problem for girls (see table 113, appendix 4).

Item 17. Sometimes I do what the crowd does even though I know it is wrong.

This was found to be more of a problem for boys and less of a problem for girls (see table 114, appendix 4).

Item 19. It's all right to attend good movies now and then in a theater if I select them carefully.

This was found to be more of a problem for girls and less of of a problem for boys (see table 115, appendix 4).

Item 20. I need to develop more self-control.

This was found to be more of a problem for girls and less of

a problem for boys (see table 116, appendix 4).

Item 21. I am confused sometimes about my religious beliefs.

This was found to be more of a problem for girls and less of a problem for boys (see table 117, appendix 4).

Item 23. Sometimes I feel discouraged when I fail to reach my ideals.

This was found to be more of a problem for girls and less of a problem for boys (see table 118, appendix 4).

Item 24. I am troubled with a guilty conscience even though I pray for forgiveness.

This was found to be more of a problem for girls and less of a problem for boys (see table 119, appendix 4).

Item 26. I have feelings against certain racial groups.

This was found to be more of a problem for boys and less of a problem for girls (see table 120, appendix 4).

Item 28. I feel self-conscious around non-Adventists.

This was found to be more of a problem for boys and less of a problem for girls (see table 121, appendix 4).

Item 29. I can't forget some of my mistakes in the past.

This was found to be more of a problem for girls and less of a problem for boys (see table 122, appendix 4).

Item 30. I have trouble with swearing and dirty stories.

This was found to be more of a problem for boys and less of a problem for girls (see table 123, appendix 4).

Item 36. Sometimes sex is a problem for me.

This was found to be more of a problem for boys and less of a problem for girls (see table 124, appendix 4).

Item 38. I go to church because my parents make me.

This was found to be more of a problem for boys and less of a problem for girls (see table 125, appendix 4).

Item 39. The doctrines of the church are clear to me and I believe them.

This was found to be more of a problem for girls and less of a problem for boys (see table 126, appendix 4).

Item 40. Most sermons in church should be more youth-centered.

This was found to be more of a problem for girls and less of a problem for boys (see table 127, appendix 4).

Item 41. I go to church because I want to.

This was found to be more of a problem for boys and less of a problem for girls (see table 128, appendix 4).

Item 44. We as youth need more opportunities to take a direct part in church activities.

This was found to be more of a problem for girls and less of a problem for boys (see table 129, appendix 4).

Item 45. The ideas of my parents are old-fashioned.

This was found to be more of a problem for boys and less of a problem for girls (see table 130, appendix 4).

Item 46. More should be done in the church for teen-age youth.

This was found to be more of a problem for girls and less of a problem for boys (see table 131, appendix 4).

Item 47. If I had the chance I would rather go to public school for my education.

This was found to be more of a problem for boys and less of a problem for girls (see table 132, appendix 4).

Item 48. I would like to see a teen-age youth club organized in my church.

This was found to be more of a problem for girls and less of a problem for boys (see table 133, appendix 4).

Item 51. I enjoy Weeks of Prayer for they strengthen me spiritually.

This was found to be more of a problem for boys and less of a problem for girls (see table 134, appendix 4).

Item 52. I attend Sabbath School because I really want to.

This was found to be more of a problem for boys and less of a problem for girls (see table 135, appendix 4).

Item 53. Weeks of Prayer help me with my personal problems.

This was found to be more of a problem for boys and less of a problem for girls (see table 136, appendix 4).

#### Subhypothesis 1 (d)

Each problem is of equal magnitude for boys in large boarding schools versus girls in large boarding schools.

Table 19 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (boys in large boarding schools versus girls in large boarding schools).

Chi-square was significant for ten items and approached significance for three items. The analysis for these items is given in tables 137 through 149 (see appendix 4).

Item 4. God has forgiven my sins.

(This item was included for analysis because it approached significance:  $p = .057$ ).

TABLE 19

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR BOYS IN LARGE BOARDING  
SCHOOLS VERSUS GIRLS IN LARGE  
BOARDING SCHOOLS

Item	Chi-square	p	Significant at .05
3	1.7325	.630	NS
4	9.1787	.057	Approaching S
5	.7638	.943	NS
6	5.4325	.246	NS
7	2.4245	.658	NS
8	7.3632	.061	NS
9	6.3529	.174	NS
10	19.0753	.001	S
11	6.9745	.137	NS
12	.4729	.976	NS
13	4.4192	.352	NS
14	11.5620	.021	S
15	3.4206	.490	NS
16	7.7957	.099	NS
17	4.4750	.345	NS
18	1.5397	.820	NS
19	5.8162	.213	NS
20	3.9268	.416	NS
21	9.3747	.052	Approaching S
22	2.2654	.687	NS
23	10.3699	.035	S
24	9.4335	.051	Approaching S
25	2.2267	.694	NS
26	15.4432	.004	S
27	7.4761	.113	NS
28	6.5950	.159	NS



TABLE 19--Continued

Item	Chi-square	p	Significant at .05
29	6.7949	.147	NS
30	27.8431	<.001	S
31	1.5713	.814	NS
32	.4515	.978	NS
33	3.4657	.483	NS
34	2.8406	.585	NS
35	.3873	.984	NS
36	16.9262	.002	S
37	3.1810	.528	NS
38	12.0426	.017	S
39	6.9683	.138	NS
40	4.1139	.391	NS
41	19.2455	.001	S
42	2.5195	.641	NS
43	5.1409	.273	NS
44	5.9678	.202	NS
45	5.9630	.202	NS
46	4.2210	.377	NS
47	6.9412	.139	NS
48	4.1027	.392	NS
49	3.5235	.474	NS
50	10.6693	.031	S
51	4.4941	.343	NS
52	8.9032	.064	NS
53	9.7332	.045	S

For items 3 and 8,  $df = 3$ . For each of the other items in this table,  $df = 4$ .

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 137, appendix 4).

Item 10. God hears and answers my prayers.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 138, appendix 4).

Item 14. Aside from family worship, I regularly have personal devotions.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 139, appendix 4).

Item 21. I am confused sometimes about my religious beliefs.

(This item was included for analysis because it approached significance;  $p = .052$ ).

This was found to be more of a problem for girls in large boarding schools and less of a problem for boys in large boarding schools (see table 140, appendix 4).

Item 23. Sometimes I feel discouraged when I fail to reach my ideals.

This was found to be more of a problem for girls in large boarding schools and less of a problem for boys in large boarding schools (see table 141, appendix 4).

Item 24. I am troubled with a guilty conscience even though I pray for forgiveness.

(This item was included for analysis because it approached significance;  $p = .051$ ).

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 142, appendix 4).

Item 26. I have feelings against certain racial groups.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 143, appendix 4).

Item 30. I have trouble with swearing and dirty stories.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 144, appendix 4).

Item 36. Sometimes sex is a problem to me.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 145, appendix 4).

Item 38. I go to church because my parents make me.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 146, appendix 4).

Item 41. I go to church because I want to.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 147, appendix 4).

Item 50. Weeks of Prayer have lasting effects.

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 148, appendix 4).

**Item 53. Weeks of Prayer help me with my personal problems.**

This was found to be more of a problem for boys in large boarding schools and less of a problem for girls in large boarding schools (see table 149, appendix 4).

**Subhypothesis 1 (e)**

Each problem is of equal magnitude for boys in small boarding schools versus girls in small boarding schools.

Table 20 presents the results of chi-square analysis for each of items 3 through 53 for this variable (boys in small boarding schools versus girls in small boarding schools).

Chi-square was significant for nine items. The analysis for these items is given in tables 150 through 158 (see appendix 4).

**Item 11. I often worry about God's punishment at the time of the judgment.**

This was found to be more of a problem for boys in small boarding schools and less of a problem for girls in small boarding schools (see table 150, appendix 4).

**Item 13. Family worship is held regularly in our home.**

This was found to be more of a problem for girls in small boarding schools and less of a problem for boys in small boarding schools (see table 151, appendix 4).

**Item 21. I am confused sometimes about my religious beliefs.**

This was found to be more of a problem for girls in small boarding schools and less of a problem for boys in small boarding schools (see table 152, appendix 4).

**Item 24. I am troubled with a guilty conscience even though I pray for forgiveness.**

TABLE 20

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR BOYS IN SMALL BOARDING  
SCHOOLS VERSUS GIRLS IN SMALL  
BOARDING SCHOOLS

Item	Chi-square	p	Significant at .05
3	1.2915	.731	NS
4	.7904	.940	NS
5	1.6688	.796	NS
6	2.5640	.633	NS
7	2.2098	.697	NS
8	5.0388	.283	NS
9	2.0257	.731	NS
10	3.6506	.455	NS
11	25.7739	<.001	S
12	2.5244	.640	NS
13	12.3824	.015	S
14	1.4898	.828	NS
15	3.1224	.538	NS
16	5.8111	.214	NS
17	5.7944	.215	NS
18	1.0476	.902	NS
19	3.5629	.468	NS
20	4.9129	.296	NS
21	18.4926	.001	S
22	3.5075	.477	NS
23	8.6393	.071	NS
24	14.3072	.006	S
25	2.7642	.598	NS
26	13.8223	.005	S
27	1.2699	.866	NS
28	14.5866	.006	S

TABLE 20--Continued

Item	Chi-square	p	Significant at .05
29	8.5637	.073	NS
30	19.9624	.001	S
31	4.3207	.364	NS
32	.4823	.975	NS
33	2.1114	.715	NS
34	4.7120	.318	NS
35	1.7419	.783	NS
36	22.0325	< .001	S
37	2.7508	.600	NS
38	4.2362	.375	NS
39	4.7585	.313	NS
40	6.3735	.173	NS
41	9.5612	.048	S
42	1.9867	.738	NS
43	5.2312	.264	NS
44	6.5308	.163	NS
45	8.5845	.072	NS
46	7.0212	.071	NS
47	4.7496	.314	NS
48	7.2179	.125	NS
49	1.5058	.826	NS
50	2.9054	.574	NS
51	5.6365	.228	NS
52	3.2621	.515	NS
53	4.1923	.381	NS

For items 3 and 46,  $df = 3$ . For each of the other items in the table,  $df = 4$ .

This was found to be more of a problem for girls in small boarding schools and less of a problem for boys in small boarding schools (see table 153, appendix 4).

Item 26. I have feelings against certain racial groups.

This was found to be more of a problem for boys in small boarding schools and less of a problem for girls in small boarding schools (see table 154, appendix 4).

Item 28. I feel self-conscious around non-Adventists.

This was found to be more of a problem for boys in small boarding schools and less of a problem for girls in small boarding schools (see table 155, appendix 4).

Item 30. I have trouble with swearing and dirty stories.

This was found to be more of a problem for boys in small boarding schools and less of a problem for girls in small boarding schools (see table 156, appendix 4).

Item 36. Sometimes sex is a problem to me.

This was found to be more of a problem for boys in small boarding schools and less of a problem for girls in small boarding schools (see table 157, appendix 4).

Item 41. I go to church because I want to.

This was found to be more of a problem for boys in small boarding schools and less of a problem for girls in small boarding schools (see table 158, appendix 4).

#### Subhypothesis 1 (f)

Each problem is of equal magnitude for boys in large day schools versus girls in large day schools.

Table 21 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (boys in large day schools versus girls in large day schools).

Chi-square was significant for five items and approached significance for one item. The analysis for these items is given in tables 159 through 164 (see appendix 4).

Item 17. Sometimes I do what the crowd does even though I know it is wrong.

This was found to be more of a problem for boys in large day schools and less of a problem for girls in large day schools (see table 159, appendix 4).

Item 30. I have trouble with swearing and dirty stories.

This was found to be more of a problem for boys in large day schools and less of a problem for girls in large day schools (see table 160, appendix 4).

Item 36. Sometimes sex is a problem to me.

This was found to be more of a problem for boys in large day schools and less of a problem for girls in large day schools (see table 161, appendix 4).

Item 40. Most sermons in church should be more youth-centered.

(This item was included for analysis because it approached significance;  $p = .053$ ).

This was found to be more of a problem for girls in large day schools and less of a problem for boys in large day schools (see table 162, appendix 4).



**TABLE 21**  
**RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS**  
**3 THROUGH 53 FOR BOYS IN LARGE DAY**  
**SCHOOLS VERSUS GIRLS IN LARGE**  
**DAY SCHOOLS**

Item	Chi-square	p	Significant at .05
3	4.4872	.344	NS
4	2.7057	.608	NS
5	3.7766	.437	NS
6	.3707	.985	NS
7	6.5423	.162	NS
8	.5170	.972	NS
9	.4587	.977	NS
10	1.4369	.838	NS
11	3.1309	.536	NS
12	1.7923	.774	NS
13	7.8076	.099	NS
14	3.5652	.468	NS
15	1.3361	.855	NS
16	4.2748	.370	NS
17	13.1780	.010	S
18	5.6058	.231	NS
19	2.9590	.565	NS
20	6.1091	.191	NS
21	4.0730	.396	NS
22	3.4265	.489	NS
23	2.5124	.642	NS
24	7.1798	.127	NS
25	1.4120	.842	NS
26	5.9362	.204	NS
27	6.3879	.172	NS
28	8.4332	.077	NS

TABLE 21--Continued

Item	Chi-square	p	Significant at .05
29	4.1552	.385	NS
30	10.8504	.028	S
31	2.0348	.729	NS
32	5.7252	.221	NS
33	3.4085	.492	NS
34	6.4617	.167	NS
35	7.5742	.108	NS
36	27.0907	<.001	S
37	1.9464	.746	NS
38	4.4925	.343	NS
39	6.5277	.163	NS
40	9.3617	.053	Approaching S
41	.7779	.941	NS
42	2.6077	.625	NS
43	6.0526	.195	NS
44	3.6199	.460	NS
45	4.3162	.365	NS
46	5.5458	.236	NS
47	2.6530	.617	NS
48	11.6437	.020	S
49	2.9469	.567	NS
50	.7948	.939	NS
51	13.3868	.010	S
52	2.4836	.648	NS
53	7.5887	.108	NS

For each item in this table,  $df = 4$ .

**Item 48.** I would like to see a teen-age youth club organized in my church.

This was found to be more of a problem for girls in large day schools and less of a problem for boys in large day schools (see table 163, appendix 4).

**Item 51.** I enjoy Weeks of Prayer for they strengthen me spiritually.

This was found to be more of a problem for boys in large day schools and less of a problem for girls in large day schools (see table 164, appendix 4).

#### Subhypothesis 1 (g)

Each problem is of equal magnitude for boys in small day schools versus girls in small day schools.

Table 22 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (boys in small day schools versus girls in small day schools).

Chi-square was significant for eleven items and approached significance for one item. The analysis for these items is given in tables 165 through 176 (see appendix 4).

**Item 3.** God loves me.

This was found to be more of a problem for boys in small day schools and less of a problem for girls in small day schools (see table 165, appendix 4).

**Item 11.** I often worry about God's punishment at the time of the judgment.

This was found to be more of a problem for boys in small day

TABLE 22

**RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR BOYS IN SMALL DAY  
SCHOOLS VERSUS GIRLS IN SMALL  
DAY SCHOOLS**

Item	Chi-square	p	Significant at .05
3	8.0112	.018	S
4	5.1410	.273	NS
5	4.5246	.340	NS
6	.2026	.995	NS
7	2.0712	.723	NS
8	3.2779	.512	NS
9	2.2480	.690	NS
10	7.7421	.101	NS
11	15.0988	.005	S
12	4.2302	.376	NS
13	2.1348	.711	NS
14	2.2580	.688	NS
15	5.4545	.244	NS
16	4.6927	.320	NS
17	1.7593	.780	NS
18	4.8190	.306	NS
19	7.1541	.128	NS
20	16.7553	.002	S
21	6.1365	.189	NS
22	4.4065	.354	NS
23	5.0501	.282	NS
24	2.1492	.708	NS
25	3.5439	.471	NS
26	13.1467	.011	S
27	2.0188	.732	NS
28	6.3528	.174	NS

TABLE 22--Continued

Item	Chi-square	p	Significant at .05
29	9.0731	.059	Approaching S
30	17.6521	.001	S
31	2.6817	.612	NS
32	3.1512	.533	NS
33	5.7515	.219	NS
34	8.7575	.067	NS
35	8.3255	.080	NS
36	16.3808	.003	S
37	3.5272	.474	NS
38	4.8050	.308	NS
39	2.6468	.619	NS
40	6.0001	.199	NS
41	11.9564	.018	S
42	1.6616	.798	NS
43	3.3583	.500	NS
44	21.4227	<.001	S
45	2.6409	.620	NS
46	13.3194	.010	S
47	15.9175	.003	S
48	10.0528	.040	S
49	1.2336	.873	NS
50	2.1984	.699	NS
51	7.3411	.119	NS
52	6.5438	.162	NS
53	4.7443	.315	NS

For item 3,  $df = 2$ . For each of the other items in this table,  $df = 4$ .

**schools and less of a problem for girls in small day schools (see table 166, appendix 4).**

**Item 20. I need to develop more self-control.**

**This was found to be more of a problem for girls in small day schools and less of a problem for boys in small day schools (see table 167, appendix 4).**

**Item 26. I have feelings against certain racial groups.**

**This was found to be more of a problem for boys in small day schools and less of a problem for girls in small day schools (see table 168, appendix 4).**

**Item 29. I can't forget some of my mistakes in the past.**

**(This item was included for analysis because it approached significance;  $p = .059$ ).**

**This was found to be more of a problem for girls in small day schools and less of a problem for boys in small day schools (see table 169, appendix 4).**

**Item 30. I have trouble with swearing and dirty stories.**

**This was found to be more of a problem for boys in small day schools and less of a problem for girls in small day schools (see table 170, appendix 4).**

**Item 36. Sometimes sex is a problem to me.**

**This was found to be more of a problem for boys in small day schools and less of a problem for girls in small day schools (see table 171, appendix 4).**

**Item 41. I go to church because I want to.**

**This was found to be more of a problem for boys in small day schools and less of a problem for girls in small day schools**

(see table 172, appendix 4).

Item 44. We as youth need more opportunities to take a direct part in church activities.

This was found to be more of a problem for girls in small day schools and less of a problem for boys in small day schools (see table 173, appendix 4).

Item 46. More should be done in the church for teen-age youth.

This was found to be more of a problem for girls in small day schools and less of a problem for boys in small day schools (see table 174, appendix 4).

Item 47. If I had the chance I would rather go to public school for my education.

This was found to be more of a problem for boys in small day schools and less of a problem for girls in small day schools (see table 175, appendix 4).

Item 48. I would like to see a teen-age youth club organized in my church.

This was found to be more of a problem for girls in small day schools and less of a problem for boys in small day schools (see table 176, appendix 4).

#### Subhypothesis 1 (h)

Each problem is of equal magnitude for students in different grades (freshman, sophomore, junior, senior).

Table 23 presents the results of the chi-square analysis for each of items 3 through 53 for this variable (grades).

Chi-square was significant for twenty-six items and approached

TABLE 23

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
3 THROUGH 53 FOR GRADES

Item	Chi-square	p	Significant at .05
3	7.2052	.844	NS
4	15.9113	.195	NS
5	17.2574	.140	NS
6	36.6401	<.001	S
7	9.7053	.642	NS
8	17.9410	.117	NS
9	11.1741	.514	NS
10	9.4967	.660	NS
11	32.7997	.001	S
12	35.6295	<.001	S
13	17.7809	.122	NS
14	16.4072	.173	NS
15	37.6773	<.001	S
16	6.1577	.908	NS
17	21.1430	.048	S
18	31.0159	.002	S
19	6.7439	.874	NS
20	16.4183	.173	NS
21	10.5224	.570	NS
22	20.7817	.054	Approaching S
23	23.8993	.021	S
24	12.6940	.392	NS
25	22.9283	.028	S
26	25.5725	.012	S
27	12.8709	.378	NS
28	21.0120	.050	S
29	24.2498	.019	S
30	34.5878	.001	S



TABLE 23--Continued

Item	Chi-square	p	Significant at .05
31	23.5095	.024	S
32	23.0607	.027	S
33	37.6820	<.001	S
34	9.4969	.660	NS
35	23.9519	.021	S
36	24.9005	.015	S
37	8.7106	.727	NS
38	29.3094	.004	S
39	18.4832	.102	NS
40	39.9780	<.001	S
41	44.0765	<.001	S
42	30.3681	.002	S
43	28.3129	.005	S
44	13.7674	.316	NS
45	15.5660	.212	NS
46	10.7096	.554	NS
47	26.2644	.010	S
48	20.1659	.064	NS
49	19.5248	.077	NS
50	32.3702	.001	S
51	23.0034	.028	S
52	30.1794	.003	S
53	8.7157	.727	NS

For each item in this table, df = 12.

significance for one item. The analysis for these items is given in tables 177 through 203 (see appendix 4).

Item 6. Although God is love I believe He will not be able to save me if I have one known sin in my life.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for juniors and seniors (see table 177, appendix 4).

Item 11. I often worry about God's punishment at the time of the judgment.

This was found to be more of a problem for juniors and seniors, and less of a problem for freshmen and sophomores (see table 178, appendix 4).

Item 12. The Bible teaching of death as a sleep is clear to me.

This was found to be more of a problem for freshmen, and less of a problem for juniors and seniors, than for sophomores (see table 179, appendix 4).

Item 15. In my personal devotions, I spend some time reading books by Ellen G. White.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for seniors, than for juniors (see table 180, appendix 4).

Item 17. Sometimes I do what the crowd does even though I know it is wrong.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for juniors and seniors (see table 181, appendix 4).

**Item 18.** When I ask questions I would prefer having the "reasons why" rather than "Yes" and "No" answers.

This was found to be more of a problem for freshmen, and less of a problem for juniors and seniors, than for sophomores (see table 182, appendix 4).

**Item 22.** I have chosen not to read novels.

(This item was included for analysis because it approached significance;  $p = .054$ ).

This was found to be more of a problem for freshmen and sophomores, and less of a problem for seniors, than for juniors (see table 183, appendix 4).

**Item 23.** Sometimes I feel discouraged when I fail to reach my ideals.

This was found to be more of a problem for juniors and seniors, and less of a problem for freshmen, than for sophomores (see table 184, appendix 4).

**Item 25.** Popular dancing is wrong.

This was found to be more of a problem for sophomores and juniors, and less of a problem for seniors, than for freshmen (see table 185, appendix 4).

**Item 26.** I have feelings against certain racial groups.

This was found to be more of a problem for freshmen and juniors, and less of a problem for seniors, than for sophomores (see table 186, appendix 4).

**Item 28.** I feel self-conscious around non-Adventists.

This was found to be more of a problem for freshmen, and less of a problem for juniors and seniors, than for sophomores

(see table 187, appendix 4).

**Item 29.** I can't forget some of my mistakes in the past.

This was found to be more of a problem for freshmen, sophomores, and juniors, and less of a problem for seniors (see table 188, appendix 4).

**Item 30.** I have trouble with swearing and dirty stories.

This was found to be more of a problem for freshmen and juniors, and less of a problem for seniors, than for sophomores (see table 189, appendix 4).

**Item 31.** I know I am doing something wrong but I can't change.

This was found to be more of a problem for freshmen and juniors, and less of a problem for seniors, than for sophomores (see table 190, appendix 4).

**Item 32.** I am too sinful, God won't accept me.

This was found to be more of a problem for seniors, and less of a problem for freshmen and sophomores, than for juniors (see table 191, appendix 4).

**Item 33.** Sometimes cheating in class is a temptation to me.

This was found to be more of a problem for sophomores, and less of a problem for freshmen and seniors, than for juniors (see table 192, appendix 4).

**Item 35.** I have difficulty controlling what programs I watch on television.

This was found to be more of a problem for freshmen, and less of a problem for juniors and seniors, than for sophomores (see table 193, appendix 4).

**Item 36.** Sometimes sex is a problem to me.

This was found to be more of a problem for juniors, and less of a problem for freshmen and sophomores, than for seniors (see table 194, appendix 4).

Item 38. I go to church because my parents make me.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for seniors, than for juniors (see table 195, appendix 4).

Item 40. Most sermons in church should be more youth-centered.

This was found to be more of a problem for freshmen, and less of a problem for juniors and seniors, than for sophomores (see table 196, appendix 4).

Item 41. I go to church because I want to.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for seniors, than for juniors (see table 197, appendix 4).

Item 42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.

This was found to be more of a problem for seniors, and less of a problem for freshmen and juniors, than for sophomores (see table 198, appendix 4).

Item 43. The church has too many restrictions.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for juniors and seniors (see table 199, appendix 4).

Item 47. If I had the chance I would rather go to public school for my education.

This was found to be more of a problem for sophomores and

juniors, and less of a problem for freshmen and seniors (see table 200, appendix 4).

Item 50. Weeks of Prayer have lasting effects.

This was found to be more of a problem for juniors and seniors, and less of a problem for freshmen and sophomores (see table 201, appendix 4).

Item 51. I enjoy Weeks of Prayer for they strengthen me spiritually.

This was found to be more of a problem for freshmen, and less of a problem for juniors and seniors, than for sophomores (see table 202, appendix 4).

Item 52. I attend Sabbath School because I really want to.

This was found to be more of a problem for freshmen and sophomores, and less of a problem for juniors and seniors (see table 203, appendix 4).

### Subhypothesis 2

Relationships with their God is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

A Four-Way Analysis of Variance by Unweighted Means (due to the unequal cells) was used with (a), (b), (c), and (d) as the four dimensions. The dependent variable was the total for the twelve items which formed the scale for hypothesis 2.

Table 24 shows the cell means for the four dimensions.

Table 25 shows the marginal means for the four dimensions.

Table 26 presents the Analysis of Variance (ANOVA) for the four dimensions.

Size of school is not a significant factor. Relationships with their God is a significantly greater problem for day school students than for boarding school students and significantly greater for boys than for girls. A Newman-Keuls test revealed that relationships with their God is a significantly greater problem for freshman and sophomore students than for junior and senior students.

### Subhypothesis 3

Relationships with themselves is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the total for the eighteen items which formed the scale for hypothesis 3. This subhypothesis was tested exactly as for subhypothesis 2.

Table 27 shows the cell means for the four dimensions.

Table 28 shows the marginal means for the four dimensions.

Table 29 presents the ANOVA for the four dimensions.

Size and type of school are not significant factors.

Relationships with themselves is a significantly greater problem for boys than for girls. A Newman-Keuls test revealed that relationships

TABLE 24

## CELL MEANS FOR SUBHYPOTHESIS 2

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<b>Boys</b>					
<b>Grade</b>	9	26.3518	26.5800	24.8367	28.5273
	10	25.9074	28.6000	27.6364	26.9245
	11	24.7885	25.7143	24.6470	27.4717
	12	24.1296	26.0833	25.0000	26.0961
<b>Girls</b>					
<b>Grade</b>	9	24.6071	26.7000	26.5882	26.7924
	10	24.7924	25.9592	23.4286	26.3585
	11	22.9444	24.7273	25.1176	25.5769
	12	23.1132	26.7200	24.4468	24.9643

TABLE 25

## MARGINAL MEANS FOR SUBHYPOTHESIS 2

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	25.4824	25.9008			NS
Boarding v. day schools	24.8960	26.4872			S
Boys v. girls	26.2059	25.1773			S
Grade (freshman to senior)	26.3729	26.2009	25.1235	25.0692	S



TABLE 26

## ANOVA TABLE FOR SUBHYPOTHESIS 2

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	32.270	1653.			
Between	102.120	31.			
A School size	71.515	1.	2.0426	.1429	NS
B School type	1043.657	1.	29.8088	.0000	S
C Sex	436.102	1.	12.4559	.0007	S
D Grade	198.156	3.	5.6597	.0011	S
AB	23.196	1.	.6625	.5788	NS
AC	4.971	1.	.1420	.7081	NS
AD	38.077	3.	1.0876	.3535	NS
BC	3.517	1.	.1005	.7500	NS
BD	1.939	3.	.0554	.9821	NS
CD	64.399	3.	1.8393	.1364	NS
ABC	43.540	1.	1.2436	.2639	NS
ABD	37.521	3.	1.0717	.3604	NS
ACD	14.259	3.	.4073	.7515	NS
BCD	21.447	3.	.6126	.6110	NS
ABCD	45.758	3.	1.3069	.2695	NS
Within	35.012	1622.			

TABLE 27  
CELL MEANS FOR SUBHYPOTHESIS 3

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<u>Boys</u>					
Grade	9	52.7778	51.6800	52.8775	52.4909
	10	52.8333	54.5600	53.6364	51.1698
	11	49.4423	52.1250	51.6470	52.9434
	12	48.5185	50.8333	49.3191	50.4808
<u>Girls</u>					
Grade	9	48.7143	51.7800	52.7255	51.9245
	10	50.5849	51.8775	51.1020	49.8868
	11	50.1667	50.2727	52.0000	51.0961
	12	48.1698	47.9400	49.8936	46.9286

TABLE 28  
MARGINAL MEANS FOR SUBHYPOTHESIS 3

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	50.7672	51.2576			NS
Boarding v. day schools	50.9005	51.1243			NS
Boys v. girls	51.7084	50.3164			S
Grade (freshman to senior)	51.8712	51.9563	51.2116	49.0104	S

TABLE 29

## ANOVA TABLE FOR SUBHYPOTHESIS 3

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	87.710	1653.			
Between	164.604	31.			
A School size	99.111	1.	1.1492	.2836	NS
B School type	20.643	1.	.2394	.6306	NS
C Sex	798.722	1.	9.2615	.0028	S
D Grade	780.728	3.	9.0529	.0000	S
AB	424.653	1.	4.9240	.0250	S
AC	34.303	1.	.3978	.5356	NS
AD	132.639	3.	1.5380	.2013	NS
BC	82.657	1.	.9584	.6712	NS
BD	20.284	3.	.2352	.8725	NS
CD	45.950	3.	.5328	.6643	NS
ABC	21.896	1.	.2539	.6207	NS
ABD	17.999	3.	.2087	.8906	NS
ACD	11.254	3.	.1305	.9412	NS
BCD	145.574	3.	1.6880	.1660	NS
ACBD	17.495	3.	.2029	.8945	NS
Within	86.241				

with themselves is a significantly greater problem for freshman, sophomore, and junior students, than for senior students. Because the interaction between size and type of schools was significant (AB  $p = .0250$ ), a three-way analysis of variance was performed at levels 1 and 2 of A and levels 1 and 2 of B (see tables 30 through 33).

Table 30 presents the ANOVA for the three dimensions: types of school, sex, and grade for large academies.

Relationships with themselves approaches significance between boarding and day school students for large academies.

TABLE 30  
ANOVA TABLE FOR THREE DIMENSIONS  
FOR LARGE ACADEMIES

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	92.247	837.			
Between	188.441	15.			
A School type	317.596	1.	3.5097	.0580	App. S
B Sex	574.647	1.	6.3503	.0115	S
C Grade	473.821	3.	5.2361	.0018	S
AB	8.908	1.	.0984	.7523	NS
AC	3.498	3.	.0387	.9892	NS
BC	34.053	3.	.3763	.7734	NS
ABC	130.449	3.	1.4416	.2279	NS
Within	90.491	822.			

Table 31 presents the ANOVA for the three dimensions (as above) for small academies.

Relationships with themselves is not significant between boarding and day school students for small academies.

Table 32 presents the ANOVA for the three dimensions: size of school, sex, and grade for boarding academies.

Relationships with themselves is significant between large and small schools, for boarding schools.

TABLE 31

ANOVA TABLE FOR THREE DIMENSIONS  
FOR SMALL ACADEMIES

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	83.039	815.			
Between	145.225	15.			
A School type	122.721	1.	1.4989	.2188	NS
B Sex	255.148	1.	3.1164	.0741	NS
C Grade	437.486	3.	5.3434	.0016	S
AB	102.051	1.	1.2464	.2636	NS
AC	36.887	3.	.4505	.7212	NS
BC	25.837	3.	.3156	.8164	NS
ABC	65.944	3.	.8054	.5061	NS
Within	81.873	800.			

TABLE 32

ANOVA TABLE FOR THREE DIMENSIONS  
FOR BOARDING ACADEMIES

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	92.795	818.			
Between	163.280	15.			
A School size	458.379	1.	5.0108	.0239	S
B Sex	189.956	1.	2.0765	.1460	NS
C Grade	393.435	3.	4.3009	.0054	S
AB	57.278	1.	.6261	.5651	NS
AC	22.773	3.	.2489	.8630	NS
BC	114.522	3.	1.2519	.2890	NS
ABC	50.464	3.	.5517	.6516	NS
Within	91.478	803.			

Table 33 presents the ANOVA for the three dimensions (as above) for day academies.

Relationships with themselves is not significant between large and small schools, for day students.

TABLE 33  
ANOVA TABLE FOR THREE DIMENSIONS  
FOR DAY ACADEMIES

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	82.797	834.			
Between	175.137	15.			
A School size	53.398	1.	.6584	.5771	NS
B Sex	688.992	1.	8.4950	.0040	S
C Grade	405.132	3.	4.9951	.0023	S
AB	6.086	1.	.0750	.7808	NS
AC	131.584	3.	1.6224	.1811	NS
BC	79.198	3.	.9765	.5954	NS
ABC	10.281	3.	.1268	.9435	NS
Within	81.106	819.			

#### Subhypothesis 4

Relationships with their church is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the total for the fourteen items

which formed the scale for hypothesis 4. This subhypothesis was tested exactly as for subhypothesis 2.

Table 34 shows the cell means for the four dimensions.

Table 35 shows the marginal means for the four dimensions.

Table 36 presents the ANOVA for the four dimensions.

Relationships with their church is a significantly greater problem for students in small schools than for students in large schools. It is also a significantly greater problem for day school students than for boarding school students. It is significantly greater for boys than for girls, and there are also significant differences by grade levels. There is a significant interaction between sex and grade effects (CD  $p = .0269$ ). However the C and D main effects are each significant. Hence, the Newman-Keuls test was carried out for simple effects at each grade level for boys and girls separately.

Relationships with their church is a significantly greater problem for freshman and sophomore boys than for senior boys and significantly greater for sophomore boys than for junior boys. Sophomore boys find relationships with their church to be a significantly greater problem than sophomore girls.

#### Subhypothesis 5

Equally conservative religious views are expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools

TABLE 34

## CELL MEANS FOR SUBHYPOTHESIS 4

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<u>Boys</u>					
Grade	9	40.2222	39.5200	39.2041	39.6909
	10	38.7037	41.4800	42.1818	41.7170
	11	35.7500	38.0893	37.1961	41.2830
	12	35.7778	36.2292	37.8936	39.4615
<u>Girls</u>					
Grade	9	35.3214	38.7200	39.6667	40.0000
	10	37.8302	38.3469	37.3265	38.7736
	11	35.7778	38.0000	39.5882	40.9615
	12	35.2075	39.0600	37.2128	37.4821

TABLE 35

## MARGINAL MEANS FOR SUBHYPOTHESIS 4

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	37.7522	39.3524			S
Boarding v. day schools	37.8037	39.3009			S
Boys v. girls	39.0249	38.0796			S
Grade (freshman to senior)	39.0432	39.5449	38.3307	37.2905	S



TABLE 36

## ANOVA TABLE FOR SUBHYPOTHESIS 4

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	80.187	1653.			
Between	190.042	31.			
A School size	1058.370	1.	13.5536	.0005	S
B School type	925.846	1.	11.8565	.0009	S
C Sex	368.329	1.	4.7169	.0281	S
D Grade	396.559	3.	5.0784	.0021	S
AB	56.250	1.	.7204	.5992	NS
AC	2.011	1.	.0258	.8670	NS
AD	76.816	3.	.9837	.5992	NS
BC	18.153	1.	.2325	.6355	NS
BD	54.742	3.	.7010	.5548	NS
CD	238.572	3.	3.0552	.0269	S
ABC	83.822	1.	1.0734	.3007	NS
ABD	14.077	3.	.1803	.9096	NS
ACD	180.896	3.	2.3166	.0726	NS
BCD	53.363	3.	.6834	.5658	NS
ABCD	37.050	3.	.4745	.7044	NS
Within	78.088	1622.			

(c) Boys and girls

(d) Students in different grades

The dependent variable was the total for the nineteen items which formed the scale for hypothesis 5. This subhypothesis was tested exactly as for subhypothesis 2.

Table 37 shows the cell means for the four dimensions.

Table 38 shows the marginal means for the four dimensions.

TABLE 37  
CELL MEANS FOR SUBHYPOTHESIS 5

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<u>Boys</u> Grade	9	60.7037	61.2400	63.7551	60.5454
	10	62.8518	57.5600	59.1591	60.4528
	11	65.0000	61.6071	64.1373	59.8679
	12	65.5741	64.0000	64.1064	62.1731
<u>Girls</u> Grade	9	67.1429	62.6600	62.7451	62.0000
	10	63.6604	63.1837	65.6735	62.8113
	11	66.0741	63.8727	62.9216	61.1731
	12	68.0566	63.1600	65.5532	65.8393

TABLE 38  
MARGINAL MEANS FOR SUBHYPOTHESIS 5

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	63.5216	62.6820			NS
Boarding v. day schools	64.1945	62.0091			S
Boys v. girls	62.0458	64.1579			S
Grade (freshman to senior)	62.5990	61.9190	63.0816	64.8077	S

Table 39 presents the ANOVA for the four dimensions.

Size of school is not a significant factor. Significantly greater conservative religious views are expressed by boarding school students than by day school students, and by girls than by boys. A Newman-Keuls test revealed that senior students express significantly greater conservative religious views than do students in the other grades.

TABLE 39  
ANOVA TABLE FOR SUBHYPOTHESIS 5

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	112.906	1653.			
Between	286.191	31.			
A School size	292.121	1.	2.6655	.0986	NS
B School type	1967.156	1.	17.9495	.0001	S
C Sex	1838.757	1.	16.7779	.0002	S
D Grade	628.445	3.	5.7343	.0010	S
AB	123.668	1.	1.1284	.2882	NS
AC	41.161	1.	.3756	.5474	NS
AD	98.596	3.	.8997	.5572	NS
BC	7.200	1.	.0657	.7936	NS
BD	29.563	3.	.2697	.8486	NS
CD	166.118	3.	1.5158	.2070	NS
ABC	49.494	1.	.4516	.5089	NS
ABD	43.026	3.	.3926	.7619	NS
ACD	161.502	3.	1.4736	.2184	NS
BCD	40.353	3.	.3682	.7792	NS
ABCD	116.618	3.	1.0641	.3637	NS
Within	109.594	1622.			

**Subhypothesis 6**

**An equally strong desire for an active religious experience is expressed by the following:**

- (a) Students in large and small schools**
- (b) Students in day and boarding schools**
- (c) Boys and girls**
- (d) Students in different grades**

The dependent variable was the total for the sixteen items which formed the scale for hypothesis 6. This subhypothesis was tested exactly as for subhypothesis 2.

Table 40 shows the cell means for the four divisions.

Table 41 shows the marginal means for the four dimensions.

Table 42 presents the ANOVA for the four dimensions.

A significantly stronger desire for an active religious experience is expressed by students in large schools than by students in small schools. It is also significantly stronger for boarding school students than for day school students, and for girls than for boys. A Newman-Keuls test revealed that junior and senior students express a significantly stronger desire for an active religious experience than freshman students. Senior students also express a significantly stronger desire than sophomore students.

**Subhypothesis 7**

**An equal degree of loyalty to the church is expressed by the following:**

- (a) Students in large and small schools**
- (b) Students in day and boarding schools**

TABLE 40  
CELL MEANS FOR SUBHYPOTHESIS 6

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<u>Boys</u>					
Grade	9	58.8889	58.3600	61.0612	56.7636
	10	59.8704	57.6800	57.3636	57.9057
	11	62.9615	60.4107	61.6078	57.1887
	12	62.9444	62.0833	60.3617	59.7115
<u>Girls</u>					
Grade	9	63.5714	59.8000	60.3725	59.5660
	10	63.3396	61.5510	63.5510	61.0943
	11	65.3704	62.2182	60.5294	59.7500
	12	65.3396	60.8200	63.8511	62.3036

TABLE 41  
MARGINAL MEANS FOR SUBHYPOTHESIS 6

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	61.5755	60.1863			S
Boarding v. day schools	61.9364	59.8253			S
Boys v. girls	59.6976	62.0641			S
Grade (freshman to senior)	59.7979	60.2944	61.2545	62.1768	S

TABLE 42

## ANOVA TABLE FOR SUBHYPOTHESIS 6

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	78.545	1653.			
Between	273.262	31.			
A School size	800.133	1.	10.6936	.0015	S
B School type	1840.147	1.	24.5931	.0000	S
C Sex	2308.467	1.	30.8521	.0000	S
D Grade	461.426	3.	6.1668	.0006	S
AB	44.013	1.	.5882	.5504	NS
AC	4.638	1.	.0620	.7990	NS
AD	124.725	3.	1.6669	.1706	NS
BC	28.600	1.	.3822	.5438	NS
BD	33.664	3.	.4499	.7216	NS
CD	161.643	3.	2.1603	.0894	NS
ABC	171.311	1.	2.2895	.1263	NS
ABD	13.996	3.	.1870	.9051	NS
ACD	106.319	3.	1.4209	.2335	NS
BCD	65.289	3.	.8726	.5429	NS
ABCD	41.403	3.	.5533	.6504	NS
Within	74.824	1622.			

(c) Boys and girls

(d) Students in different grades

The dependent variable was the total for the fifteen items which formed the scale for hypothesis 7. This subhypothesis was tested exactly as for subhypothesis 2.

Table 43 shows the cell means for the four dimensions.

Table 44 shows the marginal means for the four dimensions.

TABLE 43  
CELL MEANS FOR SUBHYPOTHESIS 7

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<u>Boys</u>					
Grade	9	48.4074	49.6800	49.3673	48.0545
	10	48.2407	45.9200	46.7954	48.5094
	11	51.7115	49.3393	50.3725	47.7547
	12	52.4815	51.4375	50.8723	50.1538
<u>Girls</u>					
Grade	9	53.2679	50.0200	48.7647	48.5849
	10	50.3207	49.8163	51.3673	50.3396
	11	51.5185	51.1636	49.5294	49.6538
	12	54.3207	50.9600	51.7447	53.4464

TABLE 44  
MARGINAL MEANS FOR SUBHYPOTHESIS 7

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	50.5378	49.7069			NS
Boarding v. day schools	50.5676	49.6771			Approaching S
Boys v. girls	49.3186	50.9261			S
Grade (freshman to senior)	49.5183	48.9137	50.1304	51.9271	S

Table 45 presents the ANOVA for the four dimensions.

Size of school is not a significant factor. The expression of a greater degree of loyalty to the church by boarding school students than by day school students approaches significance. Girls express a significantly greater degree of loyalty to the church than boys. A Newman-Keuls test revealed that seniors express a greater degree of loyalty to the church than the other grades.

TABLE 45  
ANOVA TABLE FOR SUBHYPOTHESIS 7

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	92.398	1653.			
Between	184.812	31.			
A School size	284.576	1.	3.1399	.0728	NS
B School type	326.888	1.	3.6068	.0545	App. S
C Sex	1065.185	1.	11.7529	.0010	S
D Grade	700.069	3.	7.7243	.0001	S
AB	153.919	1.	1.6983	.1895	NS
AC	16.089	1.	.1775	.6773	NS
AD	124.320	3.	1.3717	.2485	NS
BC	5.491	1.	.0606	.8011	NS
BD	12.412	3.	.1370	.9372	NS
CD	113.516	3.	1.2525	.2884	NS
ABC	65.501	1.	.7227	.6000	NS
ABD	36.011	3.	.3893	.7586	NS
ACD	70.197	3.	.7745	.5111	NS
BCD	71.206	3.	.7857	.5048	NS
ABCD	47.593	3.	.5251	.6695	NS
Within	90.631	1622.			



**Subhypothesis 8**

An equal desire to be involved in church activities is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The dependent variable was the total for the nine items which formed the scale for hypothesis 8. This subhypothesis was tested exactly as for subhypothesis 2.

Table 46 shows the cell means for the four dimensions.

Table 47 shows the marginal means for the four dimensions.

Table 48 presents the ANOVA for the four dimensions.

A significantly stronger desire to be involved in church activities is expressed by students in large schools than by students in small schools. It is also significantly stronger for boarding school students than for day school students, and for girls than for boys. There are also significant differences by grade levels. There is a significant interaction between sex and grade effects (CD  $p = .0220$ ). However, the C and D main effects are each significant. Hence, the Newman-Keuls test was carried out for simple effects at each grade level for boys and girls separately.

The expression of a desire to be involved in church activities is significantly greater for junior and senior boys than for sophomore boys. Grade levels are not a significant factor for the girls. Freshman girls express a significantly stronger desire to be involved in

TABLE 46  
CELL MEANS FOR SUBHYPOTHESIS 8

		SCHOOLS			
		Large		Small	
		Boarding	Day	Boarding	Day
<u>Boys</u>					
Grade	9	31.5370	31.7000	31.3877	30.4182
	10	31.1667	30.2800	30.0000	29.8113
	11	33.9808	32.3214	32.3529	30.0377
	12	33.7407	33.1875	31.7659	31.3846
<u>Girls</u>					
Grade	9	34.3214	32.5000	32.7647	31.6226
	10	33.5660	32.6122	33.6531	32.8302
	11	34.3148	33.2545	32.0588	32.2115
	12	34.4340	32.6200	33.4893	32.7321

TABLE 47  
MARGINAL MEANS FOR SUBHYPOTHESIS 8

Comparison	LEVEL				Significant at .05
	1	2	3	4	
Large v. small schools	32.8460	31.7825			S
Boarding v. day schools	32.7833	31.8452			S
Boys v. girls	31.5670	33.0615			S
Grades (freshman to senior)	32.0314	31.7399	32.5666	32.9193	S

TABLE 48

## ANOVA TABLE FOR SUBHYPOTHESIS 8

Source	M.S.	D.F.	F-Ratio	p	Sign. at .05
Total	31.603	1653.			
Between	89.966	31.			
A School size	466.222	1.	15.2923	.0003	S
B School type	362.761	1.	11.8988	.0009	S
C Sex	920.670	1.	30.1984	.0000	S
D Grade	117.023	3.	3.8384	.0096	S
AB	13.090	1.	.4294	.5197	NS
AC	38.230	1.	1.2540	.2619	NS
AD	38.306	3.	1.2565	.2870	NS
BC	9.144	1.	.2999	.5909	NS
BD	5.207	3.	.1708	.9158	NS
CD	97.695	3.	3.2045	.0220	S
ABC	15.454	1.	.5069	.5163	NS
ABD	.864	3.	.0283	.9930	NS
ACD	16.330	3.	.5356	.6623	NS
BCD	33.343	3.	1.0937	.3508	NS
ABCD	4.121	3.	.1352	.9383	NS
Within	30.487	1622.			

church activities than freshman boys, and sophomore girls express a significantly stronger desire to be involved in church activities than sophomore boys.

Subhypothesis 9

An equal degree of satisfaction with help given in personal problems is expressed by the following:

- (a) Students in different geographic regions

- (b) Students in different types of schools
- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools
- (e) Boys in small boarding schools versus girls in small boarding schools
- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

On item 54 alone, chi-square analysis for a contingency table was performed, separately, for each of the above variables (a) through (h). The observed frequencies to responses "Yes" and "No" were compared to expected frequencies under the null hypothesis. Where chi-square for the item was found to be significant, the null hypothesis was rejected, that is, the students do differ by the variable being tested in respect of item 54.

#### Subhypothesis 9 (a)

An equal degree of satisfaction with help given in personal problems is expressed by students in different geographic regions (see figure 1 for regions).

For this item, the chi-square was 30.7485 with 5 degrees of freedom and a probability of  $<.001$ . Because chi-square was found to be significant for this variable, item 54 is analyzed in table 204 (see appendix 4).

This was found to be more of a problem for students in the South, the East, and Canada, and less of a problem for students in

the Northwest, and the Southwest, than for those in the Central region. Therefore the null hypothesis is rejected.

Subhypothesis 9 (b)

An equal degree of satisfaction with help given in personal problems is expressed by students in different types of schools (see table 1 for types of schools).

For this item, the chi-square was 15.3616 with 3 degrees of freedom and a probability of  $<.01$ . Because chi-square was found to be significant for this variable, item 54 is analyzed in table 205 (see appendix 4).

This was found to be more of a problem for students in small day schools and less of a problem for students in large boarding schools and large day schools, than for those in small boarding schools. Therefore the null hypothesis is rejected.

Subhypothesis 9 (c)

An equal degree of satisfaction with help given in personal problems is expressed by boys and girls.

For this item, the chi-square was 2.2091 with 1 degree of freedom and a probability of  $.25$ . Because chi-square was found to be not significant for this variable, the null hypothesis is supported.

Subhypothesis 9 (d)

An equal degree of satisfaction with help given in personal problems is expressed by boys in large boarding schools versus girls in large boarding schools.

For this item, the chi-square was .0205 with 1 degree of freedom and a probability of .886. Because chi-square was found to be not significant for this variable, the null hypothesis is supported.

Subhypothesis 9 (e)

An equal degree of satisfaction with help given in personal problems is expressed by boys in small boarding schools versus girls in small boarding schools.

For this item, the chi-square was .0316 with 1 degree of freedom and a probability of .859. Because chi-square was found to be not significant for this variable, the null hypothesis is supported.

Subhypothesis 9 (f)

An equal degree of satisfaction with help given in personal problems is expressed by boys in large day schools versus girls in large day schools.

For this item, the chi-square was 1.9769 with 1 degree of freedom and a probability of .16. Because chi-square was found to be not significant for this variable, the null hypothesis is supported.

Subhypothesis 9 (g)

An equal degree of satisfaction with help given in personal problems is expressed by boys in small day schools versus girls in small day schools.

For this item, the chi-square was 2.5463 with 1 degree of freedom and a probability of .111. Because chi-square was found to be not significant for this variable, the null hypothesis is supported.

**Subhypothesis 9 (h)**

An equal degree of satisfaction with help given in personal problems is expressed by students in different grades (freshman, sophomore, junior, and senior).

For this item, the chi-square was 7.0482 with 3 degrees of freedom and a probability of .08. Because chi-square was found to be not significant for this variable, the null hypothesis is supported.

**Subhypothesis 10**

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by the following:

- (a) Students in different geographic regions
- (b) Students in different types of schools
- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools
- (e) Boys in small boarding schools versus girls in small boarding schools
- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

For each of items 55 through 58, chi-square analysis for a contingency table was performed, separately, for each of the above variables (a) through (h). The observed frequencies to responses "Yes" and "No" were compared to expected frequencies expected under the null hypothesis. Where chi-square for an item was found to be significant, the null hypothesis was rejected for that particular

item, that is, the students do differ by the variable being tested in respect of that item.

Subhypothesis 10 (a)

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by students in different geographic regions (see figure 1 for regions).

Table 49 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (geographic regions).

Chi-square approached significance for item 57. The analysis for this item is given in table 206 (see appendix 4).

Item 57. Social activities.

This was found to be more of a problem for students in the East, and less of a problem for students in the Southwest, than for those in the Northwest, the Central region, the South, and Canada (see table 206, appendix 4).

TABLE 49

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR GEOGRAPHIC REGIONS

Items	Chi-square	df	p	Significant at .05
55	3.9008	5	>.05	NS
56	6.2627	5	>.05	NS
57	10.7846	5	>.06	Approaching S
58	7.0399	5	>.05	NS



**Subhypothesis 10 (b)**

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by students in different types of schools (see table 1 for types of schools).

Table 50 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (types of schools).

TABLE 50  
RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR TYPES OF SCHOOLS

Items	Chi-square	df	p	Significant at .05
55	35.4278	3	<.001	S
56	11.6702	3	<.01	S
57	17.5062	3	<.001	S
58	25.9419	3	<.001	S

Chi-square was significant for all items. The analysis for these items is given in tables 207 through 210 (see appendix 4).

**Item 55. Spiritual activities.**

This was found to be more of a problem for students in large day schools and small day schools, and less of a problem for students in large boarding schools and small boarding schools (see table 207, appendix 4).

**Item 56. Educational activities.**

This was found to be more of a problem for students in small boarding schools and small day schools, and less of a problem for students in large boarding schools and large day schools

(see table 208, appendix 4).

**Item 57. Social activities.**

This was found to be more of a problem for students in large boarding schools and small day schools, and less of a problem for students in large day schools, than for those in small boarding schools (see table 209, appendix 4).

**Item 58. Recreational activities.**

This was found to be more of a problem for students in small day schools, and less of a problem for students in large boarding schools and large day schools, than for those in small boarding schools (see table 210, appendix 4).

**Subhypothesis 10 (c)**

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by boys and girls.

Table 51 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (boys and girls).

**TABLE 51**

**RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR BOYS AND GIRLS**

<b>Items</b>	<b>Chi-square</b>	<b>df</b>	<b>p</b>	<b>Significant at .05</b>
<b>55</b>	<b>11.2190</b>	<b>1</b>	<b>&lt;.001</b>	<b>S</b>
<b>56</b>	<b>0.9523</b>	<b>1</b>	<b>&gt;.05</b>	<b>NS</b>
<b>57</b>	<b>0.5654</b>	<b>1</b>	<b>&gt;.05</b>	<b>NS</b>
<b>58</b>	<b>1.8485</b>	<b>1</b>	<b>&gt;.05</b>	<b>NS</b>

Chi-square was significant for item 55. The analysis for this item is given in table 211 (see appendix 4).

**Item 55. Spiritual activities.**

This was found to be more of a problem for girls and less of a problem for boys (see table 211, appendix 4).

Subhypothesis 10 (d)

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by boys in large boarding schools versus girls in large boarding schools.

Table 52 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (boys in large boarding schools versus girls in large boarding schools).

TABLE 52

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR BOYS IN LARGE BOARDING  
SCHOOLS VERSUS GIRLS IN  
LARGE BOARDING SCHOOLS

Items	Chi-square	df	p	Significant at .05
55	2.7161	1	.099	NS
56	1.6439	1	.200	NS
57	3.5880	1	.058	Approaching S
58	.1516	1	.697	NS

Chi-square approached significance for item 57. The analysis for this item is given in table 212 (see appendix 4).

**Item 57. Social activities.**

This was found to be more of a problem for boys in large boarding schools, and less of a problem for girls in large boarding schools (see table 212, appendix 4).

Subhypothesis 10 (e)

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by boys in small boarding schools versus girls in small boarding schools.

Table 53 presents the results of the chi-square analysis for each of items 3 through 58 for this variable (boys in small boarding schools versus girls in small boarding schools).

TABLE 53

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR BOYS IN SMALL BOARDING  
SCHOOLS VERSUS GIRLS IN  
SMALL BOARDING SCHOOLS

Items	Chi-square	df	p	Significant at .05
55	4.0669	1	.044	S
56	5.6522	1	.017	S
57	.0275	1	.868	NS
58	.3431	1	.558	NS

Chi-square was significant for items 55 and 56. The analysis for these items is given in tables 213 and 214 (see appendix 4).

Item 55. Spiritual activities.

This was found to be more of a problem for girls in small boarding schools, and less of a problem for boys in small boarding

schools (see table 213, appendix 4).

Item 56. Educational activities.

This was found to be more of a problem for girls in small boarding schools, and less of a problem for boys in small boarding schools (see table 214, appendix 4).

Subhypothesis 10 (f)

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by boys in large day schools versus girls in large day schools.

Table 54 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (boys in large day schools versus girls in large day schools).

Chi-square was not significant for any of the items.

TABLE 54

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR BOYS IN LARGE DAY  
SCHOOLS VERSUS GIRLS IN  
LARGE DAY SCHOOLS

Items	Chi-square	df	p	Significant at .05
55	.9261	1	.335	NS
56	.3522	1	.553	NS
57	.6511	1	.420	NS
58	.3176	1	.573	NS

Subhypothesis 10 (g)

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by boys in small day schools versus girls in small day schools.

Table 55 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (boys in small day schools versus girls in small day schools).

Chi-square was significant for items 55 and 58. The analysis for these items is given in tables 215 and 216 (see appendix 4).

Item 55. Spiritual activities.

This was found to be more of a problem for girls in small day schools, and less of a problem for boys in small day schools (see table 215, appendix 4).

Item 58. Recreational activities.

This was found to be more of a problem for boys in small day schools, and less of a problem for girls in small day schools (see table 216, appendix 4).

TABLE 55

RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR BOYS IN SMALL DAY  
SCHOOLS VERSUS GIRLS IN  
SMALL DAY SCHOOLS

Items	Chi-square	df	p	Significant at .05
55	4.6392	1	.031	S
56	1.1761	1	.278	NS
57	.0387	1	.844	NS
58	9.4522	1	.002	S

**Subhypothesis 10 (h)**

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by students in different grades (freshman, sophomore, junior, and senior).

Table 56 presents the results of the chi-square analysis for each of items 55 through 58 for this variable (grades).

TABLE 56  
RESULTS OF CHI-SQUARE ANALYSIS FOR ITEMS  
55 THROUGH 58 FOR GRADES

Items	Chi-square	df	p	Significant at .05
55	1.7181	3	>.05	NS
56	8.9187	3	<.05	S
57	8.5828	3	<.05	S
58	8.3713	3	<.05	S

Chi-square was significant for items 56 through 58. The analysis for these items is given in tables 217 through 219 (see appendix 4).

**Item 56. Educational activities.**

This was found to be more of a problem for sophomores, and less of a problem for freshman, than for juniors and seniors (see table 217, appendix 4).

**Item 57. Social activities.**

This was found to be more of a problem for juniors and seniors, and less of a problem for freshmen, than for sophomores (see table 218, appendix ).

**Item 58. Recreational activities.**

This was found to be more of a problem for sophomores, juniors and seniors, and less of a problem for freshman (see table 219, appendix 4).

**Summary**

This chapter analyzed and presented the data which consisted of students' responses to the questionnaire used in the study. An item analysis upheld the assumption that certain items formed scales for the statistical treatment of the hypotheses and subhypotheses (2 through 8). Analysis of data for the hypotheses revealed which items were considered by the students to be problems in the area of morality and religion and what their attitudes were in the same area. Analysis of data for the subhypotheses showed comparisons of the responses of various subgroups, using eight moderator variables for the problems and four variables for the attitude scales.



## CHAPTER V

### SURVEY OF STUDENTS' COMMENTS ON TEST ITEMS AND RESPONSES TO OPEN QUESTIONS

#### Introduction

The students in the sample were requested to respond to items 3 through 53 of the questionnaire by recording their answers on a five-point scale on the OPSCAN answer sheet (see appendix 2). They were also encouraged to comment on any of these items by writing their observations in the margins of the questionnaire. For items 54 through 58 the students were instructed to record their responses on the OPSCAN answer sheet on the basis of "Yes" and "No." They were also given the opportunity to suggest improvements to aspects of the school program covered by each item 54 through 58. Space was provided on the questionnaire for these suggestions.

Items 59 and 60, completely open questions, were to be answered on the questionnaire. Item 59 invited the respondents to state what they considered as dishonest behavior on the part of an academy student. In item 60 the students were given the opportunity to write about any personal problems which were not covered by items 3 through 58 of the questionnaire.

In addition to the above comments, suggestions, and responses, provision was also made for the students in the sample to indicate which problems most trouble them. This could be done on the ques-

tionnaire by circling the numbers of the items concerned.

Because of the volume of information obtained in the above manner, it was necessary to be selective in the choice of students' responses for this portion of the findings. Thus, both the responses and the methods of reporting them are subjective in nature. Nevertheless, the report should be a useful addition to the statistical findings discussed in chapter IV. The items which were chosen for report were selected in an attempt to present the material in as meaningful a manner as possible.

The survey in this chapter is divided into six sections:

(1) problems which most trouble the youth, (2) students' comments on items 3 through 53 (moral and religious problems and attitudes), (3) students' free responses to item 54 (satisfaction with help given in personal problems), (4) students' free responses to items 55 through 58 (satisfaction with activities provided by the academy and the church), (5) students' free responses to item 59 (definitions of dishonesty), and (6) students' free responses to item 60 (problems not included in the questionnaire).

#### Problems which Most Trouble the Youth

Of the total number of students in the sample who responded,  $N = 1,654$  (freshman--418; sophomores--405; juniors--424; seniors--407), only a very limited number circled items which most troubled them. There is no indication whether or not the nonrespondents had problems which most troubled them. Therefore the discussion of the data in tables 220 and 221, column (a) (see appendix 5) refers only to those students who circled items which most troubled them and

cannot be applied to the sample of N = 1,654 students as a whole.

Table 220 shows the frequencies of responses concerning problems which most troubled the youth. Table 221, column (a) ranks these responses and also includes a parallel column (b) showing the ranking obtained from the item analysis (see appendix 5 for both tables).

Findings for table 221 column (a)  
only (ranking of responses)

The total number of responses ranged from 218 (for item 8) to 14 (for item 3). The students' "need to be closer to God" caused the greatest concern to the young people, whereas the fact of God's love ranked lowest in this respect. More juniors than other classes were most concerned about their relationship to God; fewer freshmen were most concerned in this respect.

Worry about God's punishment at the time of the judgment (item 11) ranked second among the problems that most troubled the youth. More freshmen and juniors showed concern in this respect; far fewer seniors indicated that this most troubled them. A related event, the second coming of Christ, also ranked high (thirteenth).

Sex (item 36) ranked third among the problems which are of most concern to the youth. From their written comments (see later in this chapter) it appeared that both boys and girls were concerned, although the concern of boys predominated. The sexual concerns included: an awareness of the awakening of their sex urges, how to handle the sex urges, masturbation, and sexual intercourse. Juniors seemed to be most troubled about sex, freshmen least.

Self-control (item 20) ranked fourth among the problems which

most concerned the youth. Students in all grade levels seemed to be equally concerned about this problem.

Overt behavior (items 16, 19, 22, 25, 27, 30, 33, 35) ranks above the median among problems which most trouble the youth. Fewer seniors appear to be most troubled by problems of dishonesty and swearing, or attendance at movie theaters and choice of music. On the other hand, problems of movie theater attendance and choice of music seemed most to trouble juniors. Novel reading as a problem that most troubled young people seemed to decline from freshman through senior years.

Drug taking (item 34) ranks near the bottom as a problem that most troubles young people. Sophomores and juniors seemed to be more concerned about problems with drugs than freshmen and seniors.

Many items connected with the students' religious experience rank above the median among problems which most trouble them. Included are items 6, 17, 21, 23, 24, 29, 31, 39. In most cases more juniors considered these experiences as problems which most troubled them.

Family worship (item 13) and personal devotions (item 14) rank high as problems which most troubled students, whereas the reading of Ellen G. White books in personal devotions (item 15) ranks much lower as a problem most troubling students.

The lasting effect of Weeks of Prayer (item 50) ranks in the upper half as a problem which most troubles students, whereas the positive assistance given by the Weeks of Prayer (items 51 and 53) ranks near the bottom as a problem which most troubles students.

The "generation gap" ranks only twenty-third as a problem

which most troubles young people.

Of the seventeen items classified under the section "You and Your Church" (items 37 through 53) fourteen appear in the lower half of the rankings of problems that most trouble the youth. Of the remaining eleven items in the lower half of the rankings, seven are classified under the section "You and Your God" (items 1 through 15) and four under the section "You and Yourself" (items 16 through 36).

As a matter of interest, the responses to the items in table 220 (see appendix 5) are ranked in table 221, column (a) (see appendix 5). The same responses to the items are also ranked according to the proportional score per individual obtained by item analysis (see table 221, column (b), and an attempt can be made to compare or contrast the two rankings of the items because the two samples are different.

Student

53

There were very few comments on the items. Most of the comments were written in the following representative sample is given below.

Item 3. God loves me.

Freshman girl: I agree but how can I be sure.

Junior boy: God loves everyone, not only me but you too.

Senior boy: It seems as though sometimes He does and sometimes He does not.

Item 4. God has forgiven my sins.

Freshman girl: If you need to make something right with another person, you have to do that before God can forgive you.

Sophomore boy: He will forgive my sins if I ask.

Junior girl: But I keep on sinning.

Senior girl: That I have cherished.

Item 5. Jesus Christ will come during my lifetime.

Freshman girl: I am not so sure.

Sophomore boy: I am hoping He will come.

Junior girl: Maybe, since we are living between the thirteenth and fourteenth verses of Revelation 7.

Senior girl: Unfair question. The world is bad and Christ needs to come and He is long overdue, but we still don't know when He is going to come.

Item 6. Although God is love I believe He will not be able to save me if I have one known sin in my life.

Freshman girl: He could if He would.

Sophomore girl: I don't worry about my past sins, but I believe God cannot forgive a cherished sin.

Junior boy: I am not sure. Since I was a kid I was taught that you would not go to heaven if you have one unforgiven sin.

Senior girl: It depends on whether you have confessed that one sin or not.

Item 7. Heaven is a real place.

Freshman girl: But it's hard to believe that it is.

Junior boy: If you don't believe there is a real heaven, you are in trouble.

Item 8. I need to be closer to God.

Freshman girl: If I knew there was a God and He loved me. Yes, it might help me.

Junior girl: But I don't want to get too religious like the religious freaks.

Item 9. I would like to learn more about how to be saved.

Freshman girl: It's not something you do, it's what God does; if you let Him.

Sophomore girl: Also, how to be sure that I am saved.

which most troubles young people.

Of the seventeen items classified under the section "You and Your Church" (items 37 through 53) fourteen appear in the lower half of the rankings of problems that most trouble the youth. Of the remaining eleven items in the lower half of the rankings, seven are classified under the section "You and Your God" (items 1 through 15) and four under the section "You and Yourself" (items 16 through 36).

As a matter of interest, the responses to the items in table 220 (see appendix 5) are ranked in table 221, column (a) (see appendix 5). The same responses to the items are also ranked according to the proportional score per individual obtained by item analysis (see table 221, column (b), appendix 5). No attempt can be made to compare or contrast the two rankings of responses to the items because the two samples of respondents were entirely different.

#### Students' Comments on Items 3 through 53

There were very few comments on each of these items. Most of the comments were written in by the girls. A representative sample is given below.

Item 3. God loves me.

Freshman girl: I agree but how can I be sure.

Junior boy: God loves everyone, not only me but you too.

Senior boy: It seems as though sometimes He does and sometimes He does not.

Item 4. God has forgiven my sins.

Freshman girl: If you need to make something right with another person, you have to do that before God can forgive you.

Sophomore boy: He will forgive my sins if I ask.

Junior girl: But I keep on sinning.

Senior girl: That I have cherished.

Item 5. Jesus Christ will come during my lifetime.

Freshman girl: I am not so sure.

Sophomore boy: I am hoping He will come.

Junior girl: Maybe, since we are living between the thirteenth and fourteenth verses of Revelation 7.

Senior girl: Unfair question. The world is bad and Christ needs to come and He is long overdue, but we still don't know when He is going to come.

Item 6. Although God is love I believe He will not be able to save me if I have one known sin in my life.

Freshman girl: He could if He would.

Sophomore girl: I don't worry about my past sins, but I believe God cannot forgive a cherished sin.

Junior boy: I am not sure. Since I was a kid I was taught that you would not go to heaven if you have one unforgiven sin.

Senior girl: It depends on whether you have confessed that one sin or not.

Item 7. Heaven is a real place.

Freshman girl: But it's hard to believe that it is.

Junior boy: If you don't believe there is a real heaven, you are in trouble.

Item 8. I need to be closer to God.

Freshman girl: If I knew there was a God and He loved me. Yes, it might help me.

Junior girl: But I don't want to get too religious like the religious freaks.

Item 9. I would like to learn more about how to be saved.

Freshman girl: It's not something you do, it's what God does; if you let Him.

Sophomore girl: Also, how to be sure that I am saved.



Junior boy: After church school we know enough. We just have to practice it.

Senior girl: There are supposedly sermons on it, but they never really hit the point.

Item 10. God hears and answers my prayers.

Freshman girl: Sometimes I wonder.

Sophomore girl: Does He always?

Junior boy: He answers them the way He sees best.

Item 11. I often worry about God's punishment at the time of the judgment.

Freshman girl: I think a God of love should save all His people or He is a hypocrite.

Sophomore boy: If my heart is right with God, and I accept Jesus, I need not fear the judgment.

Junior boy: Sometimes.

Item 12. The Bible teaching of death as a sleep is clear to me.

Senior boy: It is clear to me, but if a member of my immediate family were taken, it would still be very hard on me.

Item 13. Family worship is held regularly in our home.

Freshman girl: We are seldom at home at the same time.

Sophomore girl: I think families should start family worship when the couple is first married and always have it with their children because if they won't, the kids will reject it when they decide they should start having it.

Junior boy: Whenever the family is together, but we all put our time in to talk to God.

Senior girl: Pretty often.

Item 14. Aside from family worship, I regularly have personal devotions.

Freshman girl: Sometimes there is no time for personal devotions.

Sophomore girl: I really enjoy my own personal devotions, but I'm always studying or involved in something. I never get around to it, which bothers me.

Junior girl: I admit I don't usually because of time, but I think of it often and would.

Senior boy: I want to and I know I can if I'll let God help me get up in time in the morning. God has given me strength to do this, but I haven't used it enough. I feel personal devotions are the only way to live a successful growing Christian life.

Item 15. In my personal devotions, I spend some time reading books by Ellen G. White.

Freshman boy: I don't agree with some of her philosophies.

Sophomore girl: Not really regularly. I'd like to more.

Junior girl: I spend most of my devotions reading her books.

Senior girl: More this year than ever before.

Item 16. It would be all right to tell a little lie in case of an emergency.

Freshman boy: If it would protect an innocent person, or one of my friends, I might take the blame.

Sophomore girl: Not telling the truth can save someone some hurt feelings. He should be told later though.

Junior boy: I'm not sure. It depends on the emergency and the lie.

Senior boy: That's a little touchy. With full trust in God, He won't put us up to that.

Item 17. Sometimes I do what the crowd does even though I know it is wrong.

Freshman girl: If I do, it's because I mean to, not because they are.

Junior boy: I do what I want for myself--not what the crowd wants.

Senior girl: I don't do things morally wrong, but sometimes against school rules.

Item 18. When I ask questions I would prefer having the "reasons why" rather than "Yes" and "No" answers.

Freshman girl: And that gets me upset when they only say Yes or No!

Sophomore girl: Too often adults don't know or don't care to explain.

Junior boy: Some questions cannot be answered.

Senior girl: It depends on the question.

Item 19. It's all right to attend good movies now and then in a theater if I select them carefully.

Freshman girl: I strongly believe this. I see nothing worse in a theater than in a gym.

Sophomore girl: I used to, but I'm starting to stop.

Junior girl: But why? You can sit home and watch them on television, and not spend the extra money. Also you don't get considered a sinner if it's on television.

Senior girl: If they show them at school, why not go to them.

Item 20. I need to develop more self-control.

Freshman girl: I have a little trouble with my temper, yes.

Junior boy: Everyone does.

Senior girl: My temper is awful. I overindulge in eating.

Item 21. I am confused sometimes about my religious beliefs.

Freshman girl: Very. All the time.

Sophomore boy: Sometimes on the little known doctrines I have asked why they're like they are, but I still believe them.

Junior girl: The Bible is always there to go to in time of doubt.

Senior boy: When I allow my mind to wander away from Christ, I am.

Item 22. I have chosen not to read novels.

**Freshman boy:** I read only "true to life" novels, and am fairly selective.

**Sophomore boy:** We have to in English class.

**Junior girl:** Who has time to read during school?

**Senior boy:** It depends on the novel. There are wholesome and unwholesome novels.

Item 23. Sometimes I feel discouraged when I fail to reach my ideals.

**Freshman boy:** No, there is always another day.

**Sophomore girl:** Depends on what I have set for myself.

**Junior boy:** I have no ideals but God.

**Senior girl:** Very much.

Item 24. I am troubled with a guilty conscience even though I pray for forgiveness.

**Freshman girl:** No, I am not, never. No one should, not really, not about God--at least.

**Sophomore girl:** Sometimes I find myself having a guilty conscience but not usually.

**Junior boy:** Not all the time. I think I am forgiven.

**Senior girl:** Not troubled--just wonder what God thinks of me.

Item 25. Popular dancing is wrong.

**Freshman boy:** Rock and Roll, yes.

**Junior girl:** Any kind is wrong. You are to be in the world, not of the world.

**Senior girl:** When people are dancing immorally, yes, it's wrong, but otherwise it is O.K.

Item 26. I have feelings against certain racial groups.

**Freshman girl:** It is not so much the racial groups--it's the individuals.

**Sophomore girl:** No way! I sometimes get upset with people who do.

Junior girl: But I'll never marry a black.

Senior girl: Not against the groups, period. It's things like interracial marriage (not just black-white) that really get to me sometimes, even though I know it's not just their fault.

Item 27. I have a problem determining between right and wrong music.

Freshman girl: I don't think it matters what music you listen to.

Sophomore girl: What's right in my eyes isn't always right according to my elders.

Junior girl: I pick what I think is right.

Senior boy: My experience in academy, especially with the band director, has greatly helped me set high standards for music.

Item 28. I feel self-conscious around non-Adventists.

Freshman girl: It depends on who the people are.

Sophomore boy: Only when they want me to do something that is not all good.

Junior girl: I feel like a living example. I feel good around S.D.A.'s--some S.D.A.'s.

Senior girl: I'm actually afraid of them.

Item 29. I can't forget some of my mistakes in the past.

Sophomore girl: Remembrance sometimes keeps me from falling into temptation.

Junior girl: It helps me not to make them in future years.

Senior girl: God and others have forgiven, but I keep getting bugged.

Item 30. I have trouble with swearing and dirty stories.

Freshman girl: I swear a little. I'm trying to stop. I don't think it sounds nice.

Sophomore girl: The problem is more what I hear in school.

Junior boy: Should divide these two. Swearing, yes, seems to come in cycles, but dirty stories are no problem.

Senior girl: I don't have trouble with dirty stories, but sometimes when I get mad I think of curse words and sometimes they slip out.

Item 31. I know I am doing something wrong but I can't change.

Sophomore girl: I can change with the Lord's help.

Junior boy: I can, but I'm not.

Senior boy: I know I can never change everything myself, except through submission to Christ.

Item 32. I am too sinful, God won't accept me.

Freshman boy: He says He will, but I sometimes wonder.

Sophomore boy: Boy, that's the truth. There's no way for me!

Junior girl: I'm not sure.

Senior boy: God forgives anyone who truly wishes to be forgiven and clothed in His love.

Item 33. Sometimes cheating in class is a temptation to me.

Freshman girl: I would never cheat in class.

Junior girl: If you are in step with God's commandments, man's will fall in place.

Senior boy: I feel very fortunate that I've never even had much of a temptation.

Item 34. I have had some problems with drugs.

Freshman girl: I think drugs are awful. I don't want anything messing up my mind.

Sophomore boy: Drugs are more of a problem than faculty and administration know about. Alcohol and pot are all over the place.

Junior boy: I don't use drugs.

Senior boy: This should be a more open subject in Adventist homes, but many, many S.D.A. homes are into it.

Item 35. I have difficulty controlling what programs I watch on television.

**Freshman girl:** I seldom watch television.

**Sophomore boy:** I don't feel guilty though, I like them all.

**Junior girl:** If I don't want to watch a program, I don't.

**Senior boy:** Once I sit down, I have problems getting away from television.

**Item 36.** Sometimes sex is a problem to me.

**Freshman boy:** I have a hard time controlling my thoughts, but not my actions. No sex till marriage.

**Freshman girl:** Perhaps I'm dense, but I don't really understand what you mean by this. I believe sex is great if you take precautions.

**Sophomore boy:** What does God think about boy friends and girl friends? How does it apply to us?

**Sophomore girl:** I never had sex until I came to academy.

**Junior boy:** Used to be (I am learning to control it with God's help).

**Junior girl:** Not usually.

**Senior boy:** More in the context of novels and magazines.

**Senior girl:** I have never done anything wrong, but I'm like the indulged daughter in Messages to Young People. Boys are a big part of my interest. Help!

**Item 37.** I go to church because I think I should.

**Freshman girl:** I probably wouldn't be going to church if I didn't have a Seventh-day Adventist mother.

**Sophomore boy:** It's good for you, and I want to go.

**Junior boy:** I haven't gone for quite a while.

**Senior girl:** Because I want to.

**Item 38.** I go to church because my parents make me.

**Freshman girl:** Mum doesn't make me. I go to please her.

**Sophomore girl:** I don't attend church.

**Junior boy:** They expect it, but I don't know if I refused that they would force me to.

Item 39. The doctrines of the church are clear to me and I believe them.

Freshman girl: I believe them, but sometimes they're not too clear.

Sophomore boy: Nobody really explains a whole scope of our faith. They just do parts.

Junior boy: No, to the first part, Yes, to the second part.

Senior girl: It's not that I don't believe them; they aren't perfectly clear.

Item 40. Most sermons in church should be more youth-centered.

Freshman girl: Definitely! That's why we're turned away from church because it's so "over our heads."

Sophomore boy: Not most sermons but more than there are.

Junior boy: They are at school, but at the home church they need to be more, so we can understand and get something out of it to help us.

Senior girl: They should be centered more around the end of time, getting us ready. Also different types of problems we face.

Item 41. I go to church because I want to.

Freshman girl: It only bores me and the hard pews hurt my back.

Sophomore girl: I don't like church; I go to see my friends.

Junior boy: I just would not feel right if I didn't.

Senior girl: When I'm not at school where I am required to go.

Item 42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.

Freshman boy: We don't have much of one.

Sophomore girl: Our M.V. Society never does anything.

Junior boy: Nothing at all.



Senior girl: I haven't attended too many, but the ones I did, I enjoyed. Our church could have more than they do.

Item 43. The church has too many restrictions.

Freshman girl: I definitely agree.

Sophomore boy: For what it stands for. I would be very disappointed if it lowered its standards.

Junior girl: Not so much the church, as people in the church who twist and use E. G. White wrongly.

Senior boy: Far too many; religion should be personalized timing without restrictions.

Item 44. We as youth need more opportunities to take a direct part in church activities.

Freshman boy: We have good opportunities.

Sophomore girl: We have the opportunities, but don't take them.

Junior boy: Until we get our heads together on most people's part, I wouldn't waste the time. We are given many chances we turn down.

Senior girl: Not too involved that we can't relax and enjoy the Sabbath, but I feel we do have the opportunity at least in our church.

Item 45. The ideas of my parents are old-fashioned.

Freshman boy: The older they are the better.

Sophomore girl: We are different individuals, but we have the same basic ideas.

Junior girl: I'm more conservative than my parents.

Senior boy: They're not modern either, but they sure make good sense.

Item 46. More should be done in the church for teen-age youth.

Freshman boy: In the social area.

Sophomore boy: Besides having parties.

Junior boy: I think we have a very good program in our church.

Senior girl: Our youth are slipping out, they need attention.

Item 47. If I had the chance I would rather go to public school for my education.

Freshman girl: Though I don't like the Bible classes here, I believe I'm getting a very good education here.

Sophomore boy: I firmly believe in Christian education but tuition is so high that I must work at a job to help pay for it, otherwise I wouldn't be here. The teachers bury us in homework and we have very little time for anything but work and school. A lot of my friends are in the same predicament.

Junior boy: I have the choice and I go here.

Senior girl: Sometimes it seems that they offer and teach more in public school than here at ----. I get tempted, but a Christian education is important.

Item 48. I would like to see a teen-age youth club organized in my church.

Freshman girl: Maybe I could understand more that way.

Sophomore girl: I think it would do us a lot of good.

Junior boy: They are too boring.

Item 49. There is a "generation gap" between the adults and the teen-agers.

Freshman girl: At least in my home there is.

Sophomore girl: Yes, but not between me and my parents.

Senior boy: Teenagers like organization. Adults don't seem to be organized.

Item 50. Weeks of Prayer have lasting effects.

Freshman boy: I wish they did.

Sophomore boy: To some extent, but our school needs more religion emphasis than it has now.

Junior girl: I don't think they make that much difference on the unconverted. The good get better and the not-so-good get better for a while.

Senior boy: Depending on who you are.

Item 51. I enjoy Weeks of Prayer for they strengthen me spiritually.

Freshman girl: I like the speaker rather than the spiritual effect.

Sophomore boy: They are the best thing that ever happened in our school.

Junior girl: They are sometimes uncomfortable.

Senior girl: Depends on who is doing it.

Item 52. I attend Sabbath School because I really want to.

Freshman boy: I do prefer Sabbath School to church because I'm with my age group.

Item 53. Weeks of Prayer help me with my personal problems.

Freshman girl: The one we're having now is.

Sophomore boy: Depends on who's preaching and if it's worth listening to.

Junior boy: Most of the speakers deal with the problems of the youth today.

Senior boy: Never.

Students' Comments on Item 54 and Their  
Suggestions for Improvement

For this item, 75 freshmen, 80 sophomores, 80 juniors, and 78 seniors wrote in their comments and suggestions. A representative sample is given below.

Item 54. The academy and church, through faculty, staff, and teachers, are giving me as much help with my personal problems as I really need.

**Freshman boy (large day school):** I think we as students should have confidence in the teachers to tell them our personal problems.

**Freshman boy (large boarding school):** Even though there are a lot of kids here, they ought to take more interest in each one as a person.

**Freshman girl (small boarding school):** Some are, and some I don't feel free to talk to.

**Freshman girl (small day school):** They need to know the kids more and try to understand us better.

**Sophomore boy (small day school):** I don't think it is their duty to help me with my personal problems.

**Sophomore boy (large day school):** Teachers should have better qualifications and be more personal. It is not a generation gap but a communication gap.

**Sophomore girl (small boarding school):** I think around here there should be more eye-opening awareness that students do have problems. Many times when they see it, it's too late. They should make the students feel welcome.

**Sophomore girl (large boarding school):** Some of the teachers kind of only like the cool kids.

**Junior boy: (large boarding school):** As far as improvement, the way I see it at this school anyway, it's the students who need to improve their spiritual life. The faculty are more than willing to help us but first we have to want to be helped.

**Junior boy (small boarding school):** I think that the faculty, staff, and teachers should show more concern for the kids and try to be more understanding.

**Junior girl (large day school):** Have a certain time each day (3:00-4:00) in which kids can go and talk to minister or faculty in his room.

**Junior girl (small day school):** Most of the teachers here at ---academy when you ask them for help, they say to you they don't have time. We also have a guidance counselor but I myself have never seen him there; so a lot of good he does. I don't feel I need him that much, but others here could surely use him.

**Senior boy (small boarding school):** Have teachers come into the dorms so you can talk to them more.

**Senior boy (small day school):** Get some counselors that are qualified and have time.

Senior girl (large boarding school): The faculty of our academy need to be more concerned with an individual person's problems and help see him through. Faculty take things too lightly.

Senior girl (large day school): I feel they could take a deeper interest in kids. More counsel for them, let them know it's O.K. to come and talk and have a friend.

Students' Comments on Items 55-58 and Their  
Suggestions for Improvement

For item 55, 64 freshmen, 66 sophomores, 72 juniors, and 99 seniors wrote in their comments and suggestions. A representative sample is given below.

Statement. In my honest opinion I consider the present youth program in the academy and the church sufficient to meet my needs and interests--(with reference to items 55-58).

Item 55. Spiritual activities.

Suggestions for improvement:

Freshman boy (large boarding school): Need to get the kids together and talk more, and not have it like church so much.

Freshman boy (small boarding school): Get youth interested in giving Bible studies.

Freshman girl (large day school): We should have more Friday night meetings at the academy, so you don't just sit at home.

Freshman girl (small day school): Group discussions on Sabbath afternoon.

Sophomore boy (large day school): I think an encouragement in spiritual activities would help besides the usual Week of Prayer.

Sophomore boy (small day school): Have Friday night M.V. at local church or home.

Sophomore girl (large boarding school): They should have more nature hikes and singing to the old folk and the sick people in the hospitals all year round.

**Sophomore girl (small boarding school):** Have more meaningful talks—be alive in Christ when asked for help by someone else. Get all of the kids on fire for God. Have Bible study groups amongst different faculty members and students.

**Junior boy (large boarding school):** It seems like they try to get through to the kids by having social activities, and then don't carry on from there to give them spiritual encouragement.

**Junior boy (large day school):** Have more outings where schools get together to learn more about Jesus.

**Junior girl (small boarding school):** Build up sunshine bands and visit the elderly folk of churches and nursing homes. Those who need cheering up.

**Junior girl (small day school):** They tell us to go out and witness, but how. We need some instruction on witnessing; also time to talk over spiritual things and problems.

**Senior boy (small boarding school):** The people who get it don't want it, and the ones who want it, don't get it.

**Senior boy (small day school):** What this place needs is a gospel rock group.

**Senior girl (large boarding school):** Give more time for personal devotions.

**Senior girl (large day school):** Make it more interesting by letting the kids take part in it.

For item 56, 56 freshman, 61 sophomores, 77 juniors, and 77 seniors wrote in their comments and suggestions. A representative sample is given below.

Item 56. Educational activities.

**Suggestions for improvement:**

**Freshman boy (large boarding school):** Take more time in class.

**Freshman boy (small day school):** Classes that can be taken if one desires to do so, such as learning to communicate effectively.

**Freshman girl (large day school):** Field trips or other trips.

**Freshman girl (small boarding school):** There should be more things to do than just the basic ones. More trips, movies. Get away from just books and homework.

Sophomore boy (large boarding school): I disagree with the systems of marking. Physical Education is based on who can do the best.

Sophomore boy (large day school): We should use some educational games that might help us.

Sophomore girl (small boarding school): They could have more swimming and skiing and have more films to help explain more thoroughly.

Sophomore girl (small day school): They need to spend more time with kids person to person.

Junior boy (small boarding school): I would like to see more gardening classes, construction classes, classes working more with nature, students working together.

Junior boy (large day school): Field trips to industries--any kind of place that makes this country work.

Junior girl (large boarding school): More youth groups to work together.

Junior girl (small day school): We should have a better physical fitness program.

Senior boy (small boarding school): More field trips and out-of-the-classroom and non-textbook learning. How to deal with real-life problems.

Senior boy (small day school): None are even planned or suggested by faculty. None of the faculty want to sponsor any.

Senior girl (large boarding school): One thing that really bugs me is Bible grades. They treat it too much like any other class. Many only work for the grade. Some classes do seem too easy. "Citizenship Education" especially. I think we should have more films than what we now have in classes and we need to have some type of educational field trips.

Senior girl (large day school): Excellent--good teachers even though they're hard.

For item 57, 77 freshmen, 69 sophomores, 83 juniors, and 92 seniors wrote in their comments and suggestions. A representative sample is given below.

Item 57. Social activities.

Suggestions for improvement:

**Freshman boy (large day school):** The activities are good but again there is lack of student participation.

**Freshman boy (large boarding school):** More outings and time to be together out of the class.

**Freshman girl (large day school):** They should have more school functions (parties).

**Freshman girl (large boarding school):** School spirit is lacking and kids get the negative attitude about a lot of things. We do need more activities.

**Sophomore boy (small day school):** More activities on Saturday nights at school and places.

**Sophomore boy (small boarding school):** Sometimes I wonder if they are hard enough on our social activities. They allow too much boy-girl relations and let them get by too easy.

**Sophomore girl (small day school):** They need to help in bringing students closer. If there's no Christian atmosphere I may as well go to public school.

**Sophomore girl (small boarding school):** For Saturday night entertainment they could add more movies, skiing, skating, and have the students choose things to do.

**Junior boy (large boarding school):** Need to let the guys and girls have more liberties.

**Junior boy (small day school):** We have a banquet once a year. That is not enough. More stuff like that makes school more fun.

**Junior girl (large boarding school):** We need a student lounge —where we have somewhere to go.

**Junior girl (small day school):** If we had more money, I would like to see more skating, more intramurals, more things that you don't have to go with a guy,

**Senior boy (large day school):** More S.D.A. parties.

**Senior boy (small boarding school):** Let us learn how to relate to girls outside of a school environment and give us suggestions instead of no's for the reasons they want us not to do things.

**Senior girl (large day school):** A little too much. Too many social activities. Need more religious activities.



Senior girl (small boarding school): More of them--not enough interest--too many kids I know are out of the church now because the people in the church didn't care enough.

For item 58, 73 freshmen, 87 sophomores, 79 juniors, and 82 seniors wrote in their comments and suggestions. A representative sample is given below.

Item 58. Recreational activities.

Suggestions for improvement:

Freshman boy (large day school): More competition and sports. Better playing fields.

Freshman boy (small day school): Have more class sports against other schools.

Freshman girl (large boarding school): They have plenty of recreation for the boys but not enough for the girls.

Freshman girl (small boarding school): More teams and more things for girls to join in with.

Sophomore boy (large boarding school): To an extent they do. But I don't really understand the reasons for not having other schools play us in sports.

Sophomore boy (small boarding school): Need more. Some students have no recreation all week except for Sundays.

Sophomore girl (large day school): But they could have more activities to be in at school (track and field), gymnastics, and more interesting clubs. And more youth activities at church.

Sophomore girl (small day school): They need more sports.

Junior boy (large boarding school): Our sports program and intramural program here at the academy is great.

Junior boy (small day school): I think there should be more.

Junior girl (large day school): More opportunities for recreation for my particular sex.

Junior girl (small boarding school): Could have more activities on mixed play period nights, instead of girls watching guys play basketball.

Senior boy (large day school): I see very little objectionable about sports and competition within and between S.D.A. schools. It would give us a chance to see friends at other schools and be with Christian friends.

Senior boy (small boarding school): An all round program of exercise that all can take part in.

Senior girl (large boarding school): Let the girls be in sports as well. Their place doesn't necessarily have to be on the side bench. There is more besides tumbling. Need more activities.

Senior girl (small day school): There needs to be more of a health-orientated plan--a program for getting the body in shape, for trying not to eat sugar, jogging, etc.

### Students' Free Responses to Item 59

For this item, 267 freshmen, 301 sophomores, 299 juniors, and 286 seniors wrote in their responses. A representative sample is given below.

Item 59. I consider the following three things (in order of importance) to be dishonest behavior on the part of academy students.

Freshman boy (small boarding school): Swearing, lying, stealing.

Freshman boy (large day school): Disobeying the rules of the academy. The way the students are dressed for school. The action of a student, for example, if he/she wants to fight.

Freshman girl (large boarding school): Talking about people, pride, jealousy.

Freshman girl (small day school): I think that this is a fantastic school, but I'm really tempted to go to a different school. I have had so many things taken from me here.  
1. Robbing 2. Cheating 3. Spreading rumors.

Sophomore boy (small boarding school): Swearing, alcohol and what not, sex.

Sophomore boy (small day school): Drugs, alcohol, smoking.

Sophomore girl (large boarding school): Cheating in school, talking behind teachers' backs, not always telling the whole truth.

Sophomore girl (large day school): Talking behind someone's back. Cheating. Leaders (including faculty) who aren't as good as they pretend.

Junior boy (large boarding school): (1) A couple being real handsy and all over each other (sex). (2) Being stuck up. (3) Getting mad while playing sports.

Junior boy (large day school): Smoking in school; vandalism; disobeying.

Junior girl (small boarding school): Gossip, knocking other students to make themselves better. Being two-faced.

Junior girl (small day school): (1) They make jokes about the Lord and His Heavenly Hosts, (2) Find that being a Christian is boring and seeking other things of interest, (3) Want to act cool or show off to other students for popularity.

Senior boy (large boarding school): (1) Cheating at school work. (2) Treating fellow-students badly. (3) Trying to be difficult on purpose.

Senior boy (small day school): (1) Cheating, (2) Destruction of school property, (3) Cutting down teachers.

Senior girl (small boarding school): (1) Not stopping to look to reprimand themselves before destroying others. (2) Gossiping about other people (students, faculty). (3) Trying to get away with things, such as drugs, when it is not good for them anyway.

Senior girl (large day school): (1) Being two-faced to other people--that's dishonest, (2) When a guy or girl leads one on, of the opposite sex, by physical contact, (3) When you tell a person you don't believe in something but then turn right around and do it with the "in" crowd.

#### Students' Free Responses to Item 60

For this item, 199 freshmen, 224 sophomores, 207 juniors, and 216 seniors wrote in their responses. A representative sample is given below.

Item 60. The following are problems in my religious life which have not been mentioned in the questionnaire.

Freshman boy (large boarding school): Some of my problems are day dreaming or talking in church when I really should be

listening, and I just can't study my Bible enough and especially my Sabbath School lesson.

Freshman boy (large day school): Misunderstanding parents, who, when you try to explain something, whatever it is, they think you're back-talking. Hypocritical father who tells you of an unchristian act you have committed and turns around and repeats everything, swearing and profane, every syllable he ever learned. Parents holding the cost of education over your head like a sword every time you get into trouble.

Freshman girl (small boarding school): When I hear music, especially soft rock, I can't be still.

Freshman girl (small day school): Don't understand fully the messages in the Bible.

Sophomore boy (small boarding school): I'm not sure if there is a God to believe in.

Sophomore boy (small day school): Keeping interested on Sabbath afternoons.

Sophomore girl (large boarding school): Sometimes I want to be saved, but I just don't want to stop the things I know I am doing wrong. Hypocrites in the church bother me. Also when adults treat kids like inferiors. Indifference in large churches which makes children the same.

Sophomore girl (large day school): The fact that Jesus is going to come soon and I will just want to be sure I'm ready to meet Him.

Junior boy (large boarding school): My problem with judging people and putting them in classes and not always being a consistent Christian example like I should be, sort of being a hypocrite sometimes.

Junior boy (small day school): I don't really want to be religious and good. There's nothing to motivate that kind of feeling.

Junior girl (large day school): Being faithful to the call of the Spirit when He tries to help me over some faults in my life.

Senior boy (small boarding school): Staying close to Christ and spending time with Him in my crowded schedule. Doing things as a result of love for Christ--not of fear.

Senior boy (large day school): I think that our doctrines should be simplified to make them more easy to understand. I think the church ought to take more definite decisions against

some of the marriage practices that have been going on (divorce and remarriage); should give more instructions on how to have a successful marriage.

Senior girl (large boarding school): The lines in counsel on courtship and marriage aren't clearly given. Parents who don't live a Christian life and it's hard to know what example to follow.

Senior girl (small day school): Being lukewarm. Not a personal enough relationship with Christ.

In addition to size and type of school, and sex and grade of student, geographic regions were taken in account in the endeavor to make the responses to items 54 through 60 as representative as possible.

## CHAPTER VI

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

##### The Problem

This study is concerned with the moral and religious problems and attitudes of young people in Seventh-day Adventist academies in the United States and Canada. These young people form a significant part of the church. Educators, pastors, and others involved with the youth need to be fully informed concerning the problems of young people so that they can give them the most effective help possible. In this area, no continent-wide study has been done so far.

The research was undertaken to ascertain the moral and religious problems and attitudes of academy teen-agers as perceived by the students themselves. An attempt was also made to evaluate, from the students' viewpoint, the effectiveness of the activities and services provided to help meet the needs of the youth. Ten research hypotheses were developed to test this part of the study. Data were also analyzed to determine if any differences in responses exist between students in different geographic regions, between students in large and small schools, between students in day and boarding schools, between the sexes, and between students in different grade levels. Ten research subhypotheses, corresponding to the main research hypotheses, were developed to test this part of the study.

A thorough review of related research was conducted in the field of moral and religious problems of American teen-agers. Most of these studies were grouped as follows: studies on American teen-agers in general, studies on American church-attending youth, and studies on teen-agers in Seventh-day Adventist academies in the United States. No research was found which investigated and described the moral and religious problems and attitudes of teen-agers in Seventh-day Adventist academies in the United States and Canada as a whole.

### The Methodology

The population for this study was all students enrolled in Seventh-day Adventist senior academies in the United States and Canada in the 1976-1977 school year. By means of a stratified random method, forty-eight academies were selected. They were evenly distributed among large and small boarding schools and large and small day schools. As far as possible, they proportionately represented six geographic regions. In each academy the names of five boys and five girls were randomly drawn from each grade. The 1,920 young people constitute the sample of the study. Forty-four academies (92 percent) returned the materials in time to be included in the data processing. Sixteen hundred and fifty-four of the students (94 percent) selected in these academies participated in the study.

A revised form of the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church (Martin, 1963) was used to collect the needed data. An updated version was validated and used by Hardt in 1973. For the present study the Inventory was modified and updated and then validated by means of a pilot study and an item

analysis. The Inventory consists of sixty items. The first two items are demographic. Items 3 through 53 were divided into three sections or scales: "You and Your God," "You and Yourself," and "You and Your Church." Certain items were also considered to form scales for testing the attitudes of the students. The scales were validated through an item analysis. Items 54 through 58 require "Yes" and "No" responses as well as free responses. Items 59 and 60 require free responses only. Responses to items 3 through 58 were recorded on Opscan answer sheets. Free responses to items 54 through 60 were recorded in spaces provided on the Inventory.

The data were collected between November 1976 and March 1977. At each academy the principal designated a responsible adult to supervise the test and mail the responses. The students were assured of absolute anonymity in their responses. The collected data were processed and analyzed at the Andrews University Computer Center. Two statistical methods were used to test the data under the main hypotheses: the t-test and chi-square. The data under the subhypotheses were also tested by two statistical methods: chi-square and a four-way analysis of variance by unweighted means. Students' replies to the free-response items were recorded in notebooks after being classified by grade. Identification was by code only.

#### The Statistical Findings

The statistical findings are summarized under the research hypotheses and subhypotheses which are stated in the null form. A .05 level of probability was used as the criterion for testing each of the hypotheses and subhypotheses. (Other findings such as free



response comments and suggestions are discussed separately.)

### Hypothesis 1

Academy students have no problems in the area of morality and religion (this is a 51-fold hypothesis).

Twenty of the fifty-one items were considered to be problems.

Therefore, the null hypothesis is rejected.

Family and personal devotions constitute a problem. Sermons in church, Missionary Volunteer Society, Week of Prayer effects, and lack of sufficient church involvement also constitute problems.

Attendance at movie theaters, novel reading, and cheating in class are perceived as problems. The "generation gap" is also a problem. Students are confused about their religious beliefs and have some problems in their religious experience.

Most of the items relating to the student and his God are no problem. Popular dancing, music, drugs, television, sex, and racialism are not perceived as problems. Neither are swearing and dirty stories or telling a lie in an emergency. Church and Sabbath School attendance and Weeks of Prayer are not problems. The restrictions of the church and the ideas of their parents do not constitute problems for the young people. They are satisfied that they are attending an Adventist academy.

### Hypothesis 2

In the area of morality and religion, relationships with their God is no problem to academy students.

The null hypothesis is supported.

**Hypothesis 3**

In the area of morality and religion, relationships with themselves is no problem to academy students.

The null hypothesis is supported.

**Hypothesis 4**

In the area of morality and religion, relationships with their church is no problem to academy students.

The null hypothesis is supported.

When considered as scales, the relationships tested by hypotheses 2 through 4 are not a problem to academy students. However, when tested as separate items under hypothesis 1, twenty of the items were considered by the students to be problems in the area of morality and religion.

**Hypothesis 5**

Academy students are not conservative in their religious views.

The null hypothesis is rejected.

**Hypothesis 6**

Academy students have no desire for an active religious experience.

The null hypothesis is rejected.

**Hypothesis 7**

Academy students are not loyal to the church.

The null hypothesis is rejected.

**Hypothesis 8**

Academy students do not want to be involved in the activities of the church.

The null hypothesis is rejected.

Results under hypotheses 5 through 8 show that academy students are conservative in their religious views, they have a desire for an active religious experience, they are loyal to the church, and they want to be involved in the activities of the church.

**Hypothesis 9**

Academy students are not satisfied that the academy and church, through faculty, staff, and teachers, are providing them with as much help with their personal problems as they really need.

The null hypothesis is supported.

**Hypothesis 10**

Academy students are not satisfied that their spiritual, educational, social, and recreational needs are being fully met through the current educational and youth ministry programs of the Seventh-day Adventist church.

The null hypothesis is rejected.

Results under hypothesis 9 and 10 show that the students are dissatisfied with the amount of help with their personal problems which they are receiving from academy and church personnel who are closely involved with their daily lives. On the other hand, there is overall satisfaction with the activities and services provided by the academy and the church for its youth.

The responses under each of the main hypotheses were also

compared, using eight variables for items 3 through 58, separately (subhypotheses 1, 9, and 10). Four variables were used for the scales which measured student attitudes (subhypotheses 2 through 8).

### Subhypothesis 1

With respect to hypothesis 1 (a 51-fold hypothesis), each problem is of equal magnitude for the following:

- (a) Students in different geographic regions

The null hypothesis is rejected with respect to eleven items.

- (b) Students in different types of schools

The null hypothesis is rejected with respect to twenty-four items.

- (c) Boys and girls

The null hypothesis is rejected with respect to thirty-one items.

- (d) Boys in large boarding schools versus girls in large boarding schools

The null hypothesis is rejected with respect to thirteen items.

- (e) Boys in small boarding schools versus girls in small boarding schools

The null hypothesis is rejected with respect to nine items.

- (f) Boys in large day schools versus girls in large day schools

The null hypothesis is rejected with respect to six items.

- (g) Boys in small day schools versus girls in small day schools

The null hypothesis is rejected with respect to twelve items.

- (h) Students in different grades

The null hypothesis is rejected with respect to twenty-seven items.

An analysis of the responses to the 133 items which were found to be significant under subhypothesis 1 (a) through (h) indicates that (1) a greater number of items are more of a problem for students in the Northwest, the Southwest, and the Central region, and more items are less of a problem for students in the South, the East, and Canada, (2) students in large boarding schools express fewer problems, while students in small day schools express more problems, than students in small boarding schools and large day schools, (3) boys express more problems than girls (boys are more concerned with outward behavior whereas girls are more concerned with the inner experience), (4) seniors have the least problems while freshmen have the most; problems diminish by grade from freshmen to seniors.

#### Subhypothesis 2

Relationships with their God is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in boarding and day schools
- (c) Boys and girls
- (d) Students in different grades

The null hypothesis is supported with respect to variable (a) and is rejected with respect to variables (b), (c), and (d).

Relationships with their God is a greater problem for day school students than for boarding school students, for boys than for girls, and for freshmen and sophomores than for juniors and seniors.

**Subhypothesis 3**

Relationships with themselves is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The null hypothesis is supported with respect to variables (a) and (b) and is rejected with respect to variables (c) and (d).

Relationships with themselves is a greater problem for boys than for girls, and for freshmen, sophomores and juniors than for seniors. However, there is a significant interaction between variables (a) and (b). Relationships with themselves approaches significance between day and boarding-school students in large academies. Relationships with themselves is significant between large and small schools for boarding students.

**Subhypothesis 4**

Relationships with their church is a problem of equal magnitude for the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The null hypothesis is rejected with respect to each of variables (a) through (d).

Relationships with their church is a greater problem for

students in small schools than for students in large schools. It is also greater for day school students than for boarding school students, for boys than for girls, and by grade levels. There is a significant interaction between variables (c) and (d). Relationships with their church is a greater problem for freshman and sophomore boys than for senior boys and for sophomore boys than for junior boys. Grade levels are not significant for girls.

#### Subhypothesis 5

Equally conservative religious views are expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The null hypothesis is supported with respect to variable (a) and is rejected with respect to variables (b), (c), and (d).

Boarding-school students are more conservative in their religious views than day-school students, girls more than boys, and seniors more than freshmen, sophomores, and juniors.

#### Subhypothesis 6

An equally strong desire for an active religious experience is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The null hypothesis is rejected with respect to each of variables (a) through (d).

Students in large schools have a stronger desire for an active religious experience than students in small schools. It is also stronger for boarding-school students than for day-school students and for girls than for boys. Juniors and seniors have a stronger desire than freshmen, and seniors than sophomores.

#### Subhypothesis 7

An equal degree of loyalty to the church is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades

The null hypothesis is supported with respect to variable (a) and is rejected with respect to variables (b), (c), and (d).

Boarding-school students express a greater degree of loyalty to the church than day-school students, girls more than boys, and seniors more than freshmen, sophomores, and juniors.

#### Subhypothesis 8

An equal desire to be involved in church activities is expressed by the following:

- (a) Students in large and small schools
- (b) Students in day and boarding schools
- (c) Boys and girls
- (d) Students in different grades



The null hypothesis is rejected with respect to each variable (a) through (d).

Students in large schools express a stronger desire to be involved in church activities than students in small schools. It is also stronger for boarding-school students than day-school students, for girls than boys, and by grade levels. There is a significant interaction between sex and grade levels. Junior and senior boys express a greater desire to be involved in church activities than sophomore boys. Grade levels are not significant for girls.

#### Subhypothesis 9

An equal degree of satisfaction with help given in personal problems is expressed by the following:

(a) Students in different geographic regions

The null hypothesis is rejected.

Students in the Northwest and Southwest express a greater degree of satisfaction with help given in personal problems, whereas students in the other regions express a greater degree of dissatisfaction.

(b) Students in different types of schools

The null hypothesis is rejected.

Students in small day schools express a greater degree of dissatisfaction with help given in personal problems than students in large and small boarding schools and large day schools.

For each of the following variables (c) through (h) the null hypothesis is supported. There are no significant differences in the responses to this item.

- (c) Boys and girls
- (d) Boys in large boarding schools versus girls in large boarding schools
- (e) Boys in small boarding schools versus girls in small boarding schools
- (f) Boys in large day schools versus girls in large day schools
- (g) Boys in small day schools versus girls in small day schools
- (h) Students in different grades

#### Subhypothesis 10

An equal degree of satisfaction of spiritual, educational, social, and recreational needs is expressed by the following:

- (a) Students in different geographic regions

The null hypothesis is supported with respect to satisfaction of spiritual, educational, and recreational needs. The null hypothesis is rejected with respect to satisfaction of social needs as the difference in responses approaches significance.

Students in the Northwest, the Southwest, the Central region, the South, and Canada express a greater degree of satisfaction of social needs, whereas students in the East express a greater degree of dissatisfaction.

- (b) Students in different types of schools

The null hypothesis is rejected.

Students in large and small boarding schools express a greater degree of satisfaction of spiritual needs than students in large day schools. Students in small day schools express a greater degree of dissatisfaction of spiritual needs. Students in large

boarding and day schools express a greater degree of satisfaction of educational needs than students in small boarding and day schools. Students in large day schools express a greater degree of satisfaction of social and recreational needs than students in large and small boarding schools. Students in small day schools express a greater degree of dissatisfaction of social and recreational needs.

(c) Boys and girls

The null hypothesis is supported with respect to satisfaction of educational, social, and recreational needs. The null hypothesis is rejected with respect to satisfaction of spiritual needs.

Boys express a greater degree of satisfaction of spiritual needs than girls.

(d) Boys in large boarding schools versus girls in large boarding schools

The null hypothesis is supported with respect to satisfaction of spiritual, educational, and recreational needs. The null hypothesis is rejected with respect to satisfaction of social needs as the difference in responses approaches significance.

Girls express a greater degree of satisfaction of social needs, whereas boys express a greater degree of dissatisfaction.

(e) Boys in small boarding schools versus girls in small boarding schools

The null hypothesis is supported with respect to satisfaction of social and recreational needs. The null hypothesis is rejected with respect to satisfaction of spiritual and educational needs.

Boys express a greater degree of satisfaction of spiritual and educational needs than girls.

(f) Boys in large day schools versus girls in large day schools

The null hypothesis is supported.

(g) Boys in small day schools versus girls in small day schools

The null hypothesis is supported with respect to satisfaction of educational and social needs. The null hypothesis is rejected with respect to satisfaction of spiritual and recreational needs.

Boys express a greater degree of satisfaction of spiritual needs, whereas girls express a greater degree of dissatisfaction. Girls express a greater degree of satisfaction of recreational needs whereas boys express a greater degree of dissatisfaction.

(h) Students in different grades

The null hypothesis is supported with respect to satisfaction of spiritual needs. The null hypothesis is rejected with respect to satisfaction of educational, social, and recreational needs.

Freshmen express a greater degree of satisfaction of educational, social, and recreational needs than sophomores, juniors, and seniors.

#### Other Findings

##### Problems which most trouble the youth

Only a small number of students indicated the problems which most trouble them. There is no way of knowing what problems most trouble nonresponding students. Therefore, the data must be regarded as incomplete and unrepresentative and, thus, cannot be used for any comparisons. Frequencies of responses range from 218 for item 8: "I need to be closer to God" to fourteen for item 3: "God loves me." Most of the items which refer to the externals of religious and moral

behavior appear in the upper half of the rankings of problems which most trouble the youth (see table 221 (a), appendix 5). Sex, self-control, lying, movies, and music rank very high, while church attendance, church activities, drugs, belief in death as a sleep and heaven as a real place rank very low as problems which most trouble the youth.

Note: Statistical ranking of the item responses by proportional response per student, which was obtained through item analysis, cannot be contrasted, compared, or in any way correlated with the ranking of the item responses indicated by only a small part of the sample in this instance.

Free response comments on items  
3 through 53

Very few students responded to this part of the questionnaire and most of the respondents were girls. However, the comments provide interesting information on the attitudes and thinking of young people in Seventh-day Adventist academies, with respect to the moral and religious problems listed in the Inventory.

Free response suggestions for  
improvement (items 54  
through 58)

The number of free responses to these items averages 18 percent of the sample. A wealth of information on ways in which academy students believe improvements can be made to the school program is now available.

A significant number of students are not satisfied that the academy and church, through faculty, staff, and teachers, are giving them as much help with their personal problems as they really

need. Their suggestions for improvement in this area are now available. A significant number of students are satisfied with the spiritual, educational, social, and recreational activities provided by the academy and the church to meet their needs and interests. Nevertheless, they have offered many fine suggestions for improving the program in the academy (see chapter V).

#### Free responses to item 59

Over 68 percent of the students responded to this item. Instead of the expected stereotype response: "stealing, lying, and cheating," the students' perceptions of dishonesty range over the whole spectrum of human behavior, from hypocrisy to drugs to gossip.

#### Free responses to item 60

Over 51 percent of the students responded to the invitation to discuss problems in their religious lives which had not been mentioned in the Inventory. A whole new range of teen-age problems experienced by academy students has emerged. Most problems are concerned with the religious experience of the young person. Uncertainty and confusion are apparent. Unfortunately, this seems to be compounded by what the youth perceive as the hypocrisy and double standards of parents, teachers, and church members (see chapter V).

#### Conclusions

In agreement with the review of literature in chapter II, the findings of this study show, generally, that adolescents in Seventh-day Adventist academies have problems similar to other church-attending youth. Seventh-day Adventist youth are also similar in

many respects to adolescents among the general population.

Several conclusions are suggested by an examination of the findings. The conclusions are summarized as follows:

1. Teen-agers in Seventh-day Adventist academies in the United States and Canada experience many problems in the areas of morality and religion. They are much concerned about their religious experience. There is more concern about moral behavior than about church doctrines and church activities. This is evident not only from their responses to the questions in the Inventory but also from their free responses concerning problems they may have, but which were not mentioned in the Inventory.

2. Academy students understand the doctrines of the church but express confusion about their own religious beliefs. They do not think that the church has too many restrictions, nor that the ideas of their parents are old-fashioned. Yet they have problems with the "generation gap" which they describe as a gap in understanding and communication rather than a gap in ideals and values. Racial prejudice, sex, drugs, dancing, television, and music are not perceived to be problems in the lives of the youth. However, movies and novel reading are considered problems. The young people want to be good Christians but do not always know how. They feel that adults are not doing enough to help them with their problems. Indeed, they perceive adults as the cause of many of their problems.

3. Academy students in the western half of the United States have more problems than students in the eastern half and in Canada. Students in small day schools have more problems, and students in large boarding schools have fewer problems than students in small

boarding schools and large day schools. Boys have more problems than girls. Boys are more concerned about outward acts of moral and religious behavior whereas girls are more concerned about the inner religious experience. Freshmen have more problems and seniors have fewer problems than sophomores and juniors.

4. Adolescents in Seventh-day Adventist academies (a) are conservative in their religious views, (b) have a desire for an active religious experience, (c) are loyal to the church, and (d) want to be involved in the activities of the church. These positive attitudes toward religion and involvement in the church are expressed to a greater degree by students in large schools than small schools, by students in boarding schools than day schools, by girls than boys, and by juniors and seniors than freshmen and sophomores.

5. Academy students are not satisfied that the academy and church, through the faculty, staff, and teachers, are providing them with as much help with their personal problems as they really need. Of all the free responses in this study, this problem elicited the most negative reactions from the students. A few responses were complimentary but most were harsh, resentful, bitter or poignant, bewildering, pleading. If there is indeed a "generation gap," this appears to be it. Some students characterize it as a communication gap. They are dissatisfied with what they perceive to be a lack of personal involvement on the part of those adults, who, supposedly, have made Christian education their life-work. If their perception is correct, it is a serious indictment of the Seventh-day Adventist educational system. This perception, whether faulty or not, appears to be genuine and deeply felt. Seventh-day Adventist educators and



others involved with the youth of the church will need to take cognizance of the fact.

6. More students in the Northwest and Southwest are satisfied with help given in personal problems, whereas more students in the rest of the United States and in Canada are dissatisfied. More students in all types of schools are dissatisfied with the help given in personal problems but the number of dissatisfied students in small day schools exceeds the number of dissatisfied students in large and small boarding schools and large day schools.

7. Academy students are satisfied that their spiritual, educational, social, and recreational needs are being fully met through the current educational and youth-ministry programs of the school and the church. However, they have responded with many suggestions for improvement of the program. These include (a) making sermons more youth-centered, (b) involving the young people more fully in the activities of the church, (c) organizing more activities outside the classroom, off campus, and outside school hours, (d) permitting more sporting activities on and off campus, and (e) permitting more contacts between the sexes.

8. (a) More students in the East are dissatisfied with the provision made for their social needs whereas more students in the rest of the United States and in Canada are satisfied; (b) More students in boarding schools are satisfied with the provision made for their spiritual needs whereas more students in day schools are dissatisfied; (c) More students in all types of schools are satisfied with the provision made for their educational needs but the number of students in

large schools exceeds the number of students in small schools;

(d) More boys than girls are satisfied with the provision made for their spiritual needs; (e) More girls in large boarding schools are satisfied with the provision made for their social needs; on the

other hand more boys in large boarding schools are dissatisfied;

(f) More boys than girls in small boarding schools are satisfied with the provision made for their spiritual and educational needs;

(g) More boys in small day schools are satisfied with the provision made for their spiritual needs, whereas more girls in small day schools are dissatisfied; (h) More girls in small day schools are

satisfied with the provision made for their recreational needs, whereas more boys in small day schools are dissatisfied; and (i) More freshmen are satisfied with the provision made for their educational, social, and recreational needs than sophomores, juniors, and seniors.

9. Adolescents are far more sensitive about what constitutes dishonest behavior than they are usually given credit for. All discrepancies between profession and practice, especially in adults, are regarded as dishonest behavior. So is all immoral, hurtful, or forbidden behavior, whether covert or overt, as well as anything not genuine or sincere.

In conclusion, it should be pointed out that the findings are based solely upon the expressed responses of academy students. This was the purpose of the study--to find out what the young people perceive as moral and religious problems in their lives and what their attitudes are toward moral and religious concerns. It should also be borne in mind that the findings are given in terms of statistical significance. This means that there may still be large numbers of

students (though not statistically significant) who may differ from the result, which may be either positive or negative in nature.

Recommendations to Parents, Teachers  
and Other Youth Workers

Those areas which the students perceive as problems are used as a frame of reference for recommendations. The findings of this study have many implications for adults who are involved with young people. These implications should be converted into practice.

1. Family worship should be promoted and encouraged by the spiritual leaders of the church and practiced by parents in the home.

2. Personal devotions and the reading of Ellen G. White books by the teen-ager should be exemplified and encouraged by parents, pastors, and teachers.

3. Adults should understand the power of peer pressure and be patient and sympathetic with the youth who sometimes follow the crowd. Teen-agers should be encouraged to choose the right crowd.

4. The youth recognize the difficulty of practicing self-control. Adults should be sympathetic in order to help the youth handle this problem, which is greater for girls than for boys.

5. Although the young people understand the doctrines of the church, they are sometimes confused about their own religious beliefs. Adults should accept as normal for this stage a certain amount of confusion on the part of the young people and should not label it as alienation or rebellion.

6. Adolescents may be discouraged because they fail to reach their ideals. They may feel that they cannot be forgiven for their past mistakes and therefore they cannot forget them. They may also

feel that they are doing something wrong but cannot change. Understanding, sympathetic adults are needed to counsel and guide the youth in their religious experience.

7. Adults should tackle the "generation gap" which is actually a communication gap, not a gap in values and ideals. Adults should be willing to talk to the young people and, above all, be willing to listen to what young people have to say.

8. Sometimes cheating in class is a temptation to students, but adults need to understand that young people may not look upon this form of dishonesty as any worse than phoney behavior or lack of involvement on the part of the teachers and parents themselves. Adults need to understand what young people define as dishonesty and then set about ridding their own lives of these perceived acts of dishonesty. They cannot be models for the youth until they are perceived by the youth as worthy of emulation.

9. It appears that the problems of youth concerning movies and novel reading arise out of the apparent double standards of the church and the academy. It would seem that the spiritual and academic leaders need to have a hard look at the practices of the church concerning movies on television, in the church hall, and on campus, and also at the use of novels in English classes.

10. Church and youth pastors would do well to make their sermons more youth-centered if they expect to hold the interest of the young people. Church leaders and members will be more effective if they do more in the church for the youth and give the youth more opportunities to become directly involved in the activities of the church.

11. The study indicates that the Missionary Volunteer Society has lost its relevance for the academy-age youth of the Seventh-day Adventist church. Instead, the young people are asking for the organization of teen-age youth clubs. Youth leaders of the church, and academy faculty and staff should take cognizance of this fact, if they want to meet the needs of their young people.

12. Although Week of Prayer has a positive influence on the lives of the youth, they are concerned that its effects are not lasting. Church and academy leaders need to give careful study to a Week of Prayer "Follow-Through" program which must be an ongoing spiritual program lasting through the school year.

13. The biggest indictment of all, coming out of this study, is the students' expression of dissatisfaction with the help given them in their personal problems. The students feel the teachers are not personally interested in them nor do they have time for them. They sometimes perceive the teachers as phoney or as wanting to put them down.

Too often the reaction of school personnel to the needs of the youth in their care seems to be summed up as follows: "Personal problems? That's for the pastor, or the school counselor, or the Bible teacher but not for us. We are already loaded down with heavy teaching and workloads!" "But the pastor is too busy, and we cannot afford a full-time counselor, so the counselor has to teach. And the Bible teacher is overloaded because the budget is tight. And that goes for all of us too." This story would be amusing if its results were not so tragic--boys and girls apparently losing out because the people who must care are not caring as they should.

Church pastors and youth pastors, other church leaders, parents, school administrators, teachers, school counselors, and other staff should be caring people if they wish to make Christian education effective and help the youth develop a meaningful religious experience.

14. Academy youth are not hostile to the academy and the church. They are searching for help with their moral and religious problems. Adults who work with the youth should come forward with that help.

15. Academy and church leaders should give continuing attention to improvement of the spiritual, educational, social, and recreational activities provided by the school and church to meet the needs of young people. This study has gathered a wealth of suggestions for improvement of the program. (They will be published later.) A sincere endeavor must be made to implement these suggestions wherever feasible.

16. More problems are experienced by students in the western half of the United States, by students in small schools, by students in day schools, by boys, and by freshmen and sophomores. Caring adults will relate to all academy students, but they should pay special attention to the most vulnerable students in the academy population. Boys in the lower grades of small day academies in the western half of the United States appear to be the most vulnerable of all.

#### Recommendations for Further Research

Arising out of the present study the following suggestions are given for further study:

1. An entirely new and enlarged research instrument could be constructed. It could be based upon the results of the item analysis

for items 3 through 53, the comments of the students on these same items, and their answers to free-response items 54 through 59. It could include items which cover additional problems which the students have discussed in answer to free-response item 60.

2. The research could be extended to include young people in junior academy (seventh and eighth grades) and young people in college. The same research instrument could be used for both groups. Minor language revisions may be necessary for the students in junior academy.

3. The research could be extended to include Seventh-day Adventist adolescents in public schools. Such a study would show whether there are any significant differences between Seventh-day Adventist students in church school and in public school. If there are differences, and if the variables are known, the effectiveness of Seventh-day Adventist schools compared to public schools could be investigated. Thus far, evidence of the effectiveness of religious education provided by parochial schools (Lutheran and Roman Catholic) has been inconclusive. Such a study has not been done in Seventh-day Adventist schools.

4. The research could be extended to include additional variables such as church affiliation of parents, socio-economic status of parents, education of parents, city or rural location of the academy, last school attended by the student (public or S.D.A. school), and so forth.

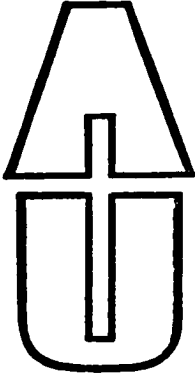
5. This study, together with a number of recent research studies by Seventh-day Adventist scholars, could be the incentive for the establishment of a Youth Research Center for the Seventh-day Adventist

Church. It would be similar to the Youth Research Center run by the Lutheran Church in Minnesota. Such a Research Center would be of inestimable value to the educational, Sabbath School, evangelistic, temperance, health, and youth departments of the church. A program of continuing research would make available to the church current information about its adolescents. This would make possible the development and implementation of plans and programs based upon reliable research findings. Such a research effort is long overdue. This will not be the solution to all the problems of the youth, but it should lead to continuing progress in providing successfully for the needs of the thousands of teen-agers in the ranks of the Seventh-day Adventist Church.



**APPENDIX 1**

**Letters**



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103

January 15, 1976

The Director  
Department of Education  
General Conference of S.D.A.  
Takoma Park, Washington, D.C. 20012

Dear Fellow-Educator:

I am an advanced Ed.D. student at Andrews University. I am on study leave from South Africa where I have served the cause of Christian education for more than 30 years. I was academic dean and chairman of the Education Department of Good Hope College and also Education Department Secretary, of the Good Hope Conference, prior to my coming to Andrews a year ago. I am just beginning my doctoral dissertation at this stage.

I have decided to do the doctoral dissertation on the moral and religious problems and attitudes of adolescents in our S.D.A. academies in the North American Division. My major field is educational psychology and counseling and I have a burden for a better understanding by educators of the special needs of our teenagers.

Charles Martin of the G. C. Youth Department did the same study on four Lake Union academies in 1963 and Stanley Hardt of Union College replicated the study at two Nebraska academies in 1973. But their studies applied only to the academies concerned. To be valid for S.D.A. youth in North America these studies must be done on a sample of all academies in this Division. This I propose to do.

I plan to make the results and recommendations of this study available to S.D.A. administrators and other educators in North America in the hope that it will increase our understanding of the needs of the teen-age youth whom we serve.

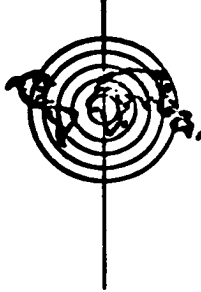
I trust that I may have your blessing on the proposed research as described above.

Thanking you in anticipation,

I remain,

Yours sincerely,

*I. F. duPreez*  
I. F. duPreez



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General Conference of

# Seventh-day Adventists

CHURCH WORLD HEADQUARTERS, 6840 EASTERN AVENUE, NW, WASHINGTON, D.C. 20012  
TELEPHONE: (202) 723-0800 • CABLE: ADVENTIST, WASHINGTON • TELEX: 88-880

DEPARTMENT OF EDUCATION

January 20, 1976

Mr. I. F. duPreez  
Garland Apartment B-13  
Berrien Springs, Michigan 49103

Dear Brother dePreez:

Greetings! It is good to know of your plans to research the moral and religious problems and attitudes of Adventist academy youth. In my opinion your study should prove a valuable one, and I sincerely trust that all North American academies will assist you in accumulating data for the study.

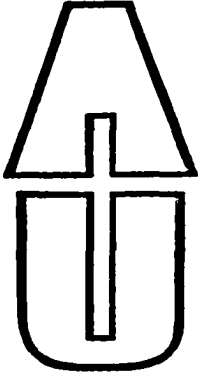
Kindly remember the General Conference Education Department Reference Room when the project is completed.

Best wishes!

Cordially,

  
Garland J. Millet  
Associate Director

pb



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103

January 15, 1976

Elder C. D. Martin  
Associate Youth Director  
General Conference of S.D.A.  
Takoma Park, Washington, D. C. 20012

Dear Elder Martin:

I am an advanced Ed.D. student at Andrews University. I am on study leave from South Africa where I have served the cause of Christian education for more than 30 years. I was academic dean and chairman of the Education Department of Good Hope College and also Education Department Secretary, of the Good Hope Conference, prior to my coming to Andrews a year ago. I am just beginning my doctoral dissertation at this stage.

I have decided to do the doctoral dissertation on the moral and religious problems and attitudes of adolescents in our S.D.A. academies in the North American Division. My major field is educational psychology and counseling and I have a burden for a better understanding by educators of the special needs of our teenagers.

According to my information, you did the same study on four Lake Union academies in 1963. For this study you developed as your instrument the Religious Inventory for Teen-age Youth of the Seventh-day Adventist Church. Now, I would like to make use of your instrument in my study, although I will probably update it. May I have your permission to use your "Religious Inventory?"

Yours sincerely,

*J. F. duPreez*

I. F. duPreez

YOUTH DEPARTMENT



General Conference of

# Seventh-day Adventists

CHURCH WORLD HEADQUARTERS: 6840 EASTERN AVENUE, NW, WASHINGTON, D.C. 20012  
 TELEPHONE: (202) 734-2000 • CABLE: ADVENTIST, WASHINGTON • TELEFAX: 88-480

20 January 1976

Mr. Ingram F. du Preez  
 Garland B-13  
 Berrien Springs, Michigan 49103

Dear Brother du Preez:

I just received your letter outlining plans to conduct a survey of academy students across the North American Division. Your project sounds very interesting and certainly worthwhile.

I had earlier hoped that perhaps I could expand my previous study into a similar undertaking, but up to this time have not been able to do so. Information such as your survey should secure can be of real assistance to our church as plans are laid for the youth in the future.

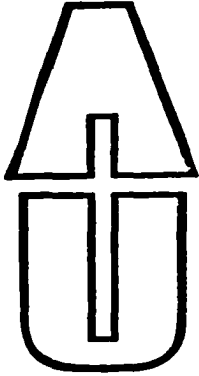
If you feel that the instrument developed for my study can be of value in this survey you have my permission to use it. On behalf of our Youth Department here at the General Conference I would like to request that you keep in touch with us concerning your results and if there is any way that we can share some of the information that you receive it will be much appreciated.

May the Lord bless you in your program there at Andrews. Thank you for writing.

Sincerely yours,

C. D. Martin  
 Associate Youth Director

CDM:dm



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103  
Phone: 6855

April 7, 1976

The Principal  
Andrews Academy  
Berrien Springs, MI 49104

Dear Dr. Orrison:

I am working toward the doctorate in education at Andrews University. My dissertation topic, "Moral and Religious Problems and Attitudes as Expressed by Students in Seventh-day Adventist Academies in the United States and Canada," has been approved and I am ready to begin. The education departments of the General Conference, the Lake Union and Andrews University have already given approval for the study to be done.

A pilot study is part of the research design and I wish to use Andrews University Academy for that purpose. Please arrange a time for me to meet with you to discuss the matter. Your valued counsel and cooperation is greatly appreciated. I will check with your secretary.

Sincerely yours,

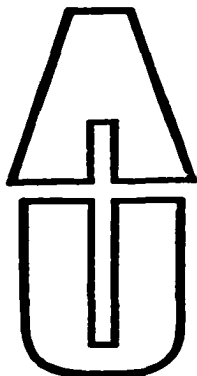
*I. F. duPreez*

I. F. duPreez

Approved:

*Ruth Murdoch*

Dr. R. R. Murdoch, Chairperson, Doctoral Committee  
Professor, Educational Psychology



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103

April 9, 1976

The Director  
Department of Education  
(Union Conference)

Dear Fellow-Educator:

I am working toward the doctorate in education at Andrews University. My dissertation topic, "Moral and Religious Problems and Attitudes as Expressed by Students in Seventh-day Adventist Academies in the United States and Canada," has been approved by Andrews University and the General Conference Department of Education.

Will you please supply me with the following information: Names of academies in your union conference, with the enrollments broken down for each grade in each academy, i.e. for freshmen, sophomores, juniors, and seniors. State whether they are day or boarding academies. With this information I shall be able to select the academies needed to participate in my study.

Your cooperation is greatly appreciated.

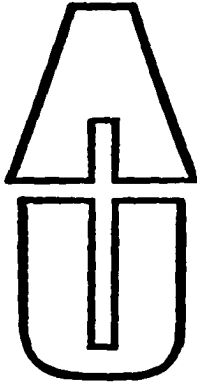
Yours sincerely,

*L. F. duFrez*  
L. F. duFrez

Approved:

*Ruth Murdoch*

Dr. R. R. Murdoch  
Chairperson, Doctoral Committee



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103

The Principal  
(Academy)

Dear Fellow Worker,

I am working toward the doctorate in education at Andrews University. My dissertation topic, "Moral and Religious Problems and Attitudes as Expressed by Students in Seventh-day Adventist Academies in the United States and Canada," has been approved by Andrews University and the General Conference Department of Education. Your Union Conference Education Superintendent has provided me with certain preliminary information but I need the participation of your academy in order to complete the project.

This will involve only forty of your students—five boys and five girls from each grade: freshman, sophomore, junior and senior. They will be requested to complete a questionnaire and its answer sheet and this will take only a few minutes of their time. The task is not complicated and can be supervised by your secretary or someone else whom you may appoint.

It is important that the materials be returned early in the school year, in order for me to complete the doctorate by Winter, 1977. I am scheduled to return to South Africa as principal of Good Hope College in Cape Town after that.

Please indicate on the tear-off slip whether the project can be completed in your academy early in the school year if I send you the materials soon after school opens. You may use the enclosed self-addressed stamped envelope for your reply.

Thank you for your kind assistance.

Yours Sincerely,

*I. F. du Preez*  
I. F. du Preez

Approved:

*Ruth Murdoch*  
Dr. R. R. Murdoch  
Chairperson, Doctoral Committee

Tear off here

Mr. du Preez  
Andrews University

Date: \_\_\_\_\_

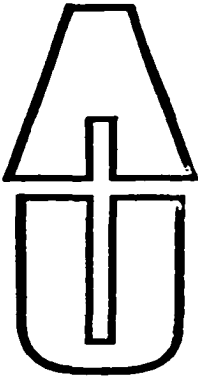
I shall be happy to complete the project in my academy and return the materials to you during \*September/October.

\_\_\_\_\_  
Academy

\_\_\_\_\_  
Principal

\*Delete where not applicable





Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103

The Principal  
(Academy)

Dear Fellow Worker,

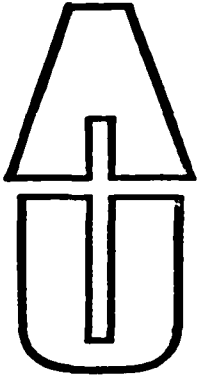
Thank you for your willingness to assist in my dissertation project "Moral and Religious Problems and Attitudes as Expressed by Students in Seventh-day Adventist Academies in the United States and Canada."

We now have the necessary approvals and are ready to proceed this fall. Will you please send me the new enrollment lists for 1976-1977 for each of the grades i.e. freshman, sophomore, junior, senior. Boys and girls should be on separate lists for each grade. If it is more convenient to list all students together for each grade please indicate which are boys or girls, as first names are often misleading by themselves. I shall need these enrollment lists in order to select a random sample of 40 participants from all grades at your academy.

As the time available for me to complete my study is limited I shall appreciate receiving these lists as soon after school starts as they can be provided.

Sincerely,

I. F. duPreez  
Doctoral Candidate



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-13 Garland Apts.  
Berrien Springs, MI 49103

The Principal,  
(Academy)

Dear Fellow Worker,

Thank you for sending me the enrollment lists for 1976-1977. A random sample has now been selected. Seven boys and 7 girls in each grade are indicated, of which the first 5 available out of each list of 7, should participate when the test is given. This means that 5 boys and 5 girls from each grade i.e. 40 students in all, should complete the questionnaires and answer sheets. The test will not take more than an hour--perhaps less.

I am enclosing the following materials which should be handed to the person you appoint to supervise the test:

1. A Letter of Instructions for the supervisor.
2. 40 Letters of Instructions for the students (one per student).
3. 40 Questionnaires (one per student).
4. 40 Answer Sheets (one per student).
5. A self-addressed stamped envelope for the return of the questionnaires and answer sheets.

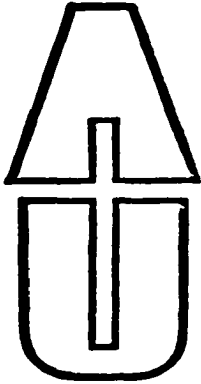
Please arrange for the project to be completed during September/October as indicated by us in previous correspondence.

I deeply appreciate your kindness in assisting me despite the heavy responsibilities you are carrying at this time.

Sincerely your fellow educator,

*I. F. duPreez*

I. F. duPreez  
Doctoral Candidate



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-15 Garland Apts.  
Berrien Springs, MI 49103

January 3, 1977

The Principal  
(Academy)

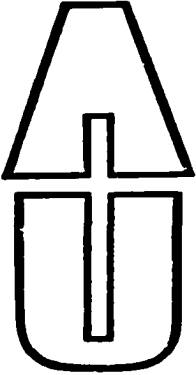
Dear Fellow Worker:

Thank you for permitting your students to participate in the questionnaire I am working with to fulfill the requirements for my doctorate. Giving the use of your valuable time and the time of the supervisor of the test was highly appreciated. I also wish to thank the students who gave their time to complete the questionnaire. In all, 43 senior academies in the United States and Canada participated in the project.

A number of principals are interested in the project and have requested a copy of my findings. It is my intention to make the results available to the principals of all senior academies in the United States and Canada. However, I do not expect to have the findings ready before April, 1977. We will do all in our power to provide you with the information before the close of the academic year.

Sincerely,

I. F. du Preez  
Doctoral Candidate



Andrews University Berrien Springs, Michigan 49104 (616) 471-7771

B-15 Garland Apts.  
Berrien Springs, MI 49103

January 27, 1977

The Principal  
(Academy)

Dear Fellow Worker:

On                                 I mailed you the materials for the doctoral dissertation project which you so kindly consented to have done in your academy. As I will have to start processing the data for the study by the middle of February, I need to have the questionnaires and answer sheets returned as soon as possible.

If the project has not been done yet in your academy, please arrange for it to be completed as soon as possible. Then the questionnaires and answer sheets should be mailed in the stamped self-addressed envelope. If the project has already been completed please check to see if the questionnaires and answer sheets have been mailed in the envelope enclosed with the materials.

Your kind attention at this stage of the research is essential to the success of my doctoral work. May I count on your collegial support?

Yours sincerely,

A handwritten signature in cursive script that reads "I. F. duPreez". The signature is written in black ink and is positioned above the typed name.

I. F. duPreez  
Doctoral Candidate

## **APPENDIX 2**

### **Materials for the Survey**

Instructions to the Supervisor

September 1, 1976

Dear Supervisor,

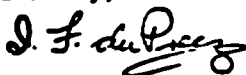
1. For this project to be of value it is essential for 5 boys and 5 girls from each grade (freshman, sophomore, junior, senior), 40 students in all, to participate in completing the questionnaire and answer sheet.
2. The selection lists indicate 7 boys and 7 girls from each grade. The first 5 who are available out of the 7 on each list should participate when the test is given. The test should not take more than an hour--perhaps less.
3. Each student should be supplied with
  - (a) a No. 2 pencil (please supply pencils to the participants).
  - (b) a letter of instructions
  - (c) a questionnaire
  - (d) an answer sheet.
4. The students should read the instructions through carefully and answer all the questions.
5. Please check that they fill in questions 1 and 2 (sex and grade) on the questionnaire as well as on the answer sheet. THIS IS VERY IMPORTANT.
6. Place the following pattern on the chalkboard before the students begin the test and illustrate how questions 3 through 53 should be marked.

strongly agree	agree	no opinion	disagree	strongly disagree
1	2	3	4	5

63. Meat eating is unhealthy.
7. They should mark the answers to questions 3 through 58 on the answer sheets. In addition comments may be written on the questionnaires. They should remember to go back and circle the numbers of the items on the questionnaires that trouble them most. Questions 59 and 60 should be answered on the questionnaires only.
  8. The letter of instructions should not be returned. Throw it away.
  9. Each student should place his completed answer sheet inside the completed questionnaire and both should be placed in the large self-addressed envelope provided.
  10. The envelope containing all the completed questionnaires and answer sheets should be sealed in the presence of the participants.
  11. Two of the participants should mail the envelope as soon as possible.

Thank you for your assistance in the project.

Sincerely,



I. F. duPreez  
Doctoral Candidate

Letter of Instructions to the Students

September 1, 1976

Dear Student,

You and 39 other students have been randomly selected at your academy to help me in an important research project. The study will investigate the moral and religious problems and attitudes of academy students. We hope that the project will contribute greatly to a better understanding of the problems and attitudes of teen-agers in our schools. Your part in the project will require only the completion of a questionnaire and an answer sheet and will take just a few minutes of your time. Please use a No. 2 pencil to mark a heavy line in the correct blocks on the answer sheet. Further comments may be written on the questionnaire itself. Every question should be answered.

THIS QUESTIONNAIRE IS COMPLETELY ANONYMOUS AND CANNOT BE TRACED TO YOU. So feel quite free to answer the questions as honestly and as accurately as you can.

Answering the Questions:

Step One: Questions 1 and 2 must be answered on the answer sheet and the correct numbers must also be circled on the questionnaire.

Step Two: Questions 3 through 53 each have five possible answers. You should choose the answer which most nearly reflects your response.

EXAMPLE:Questionnaire

63. Meat eating is unhealthy.  
(If you agree with this statement, but you would mark the 2 on the scale between (1) strongly (e.) Having seen this example, please proceed to mark No way.

Step Three: Circle the numbers on the questionnaire (answer sheet) which trouble you the most, for example (63) Meat eating unhealthy.

Step Four: Numbers 54 through 58 must be answered on the answer sheet, either Yes (1) or No (2).

EXAMPLEQuestionnaire

64. My parents give me much helpful counsel.  
(If the answer is Yes, mark the (1) on the scale.)

Answer Sheet

1 yes	2 no
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Step Five: Nos. 59 and 60 must be answered on the questionnaire only.

After completing your questionnaire and answer sheet, place the answer sheet inside the questionnaire and then place both of them in the large envelope provided. The envelope will be sealed in your presence and dispatched by two fellow-students. Your assistance in this project is greatly appreciated and I wish to thank you in advance for your help.

Sincerely yours,

*I. F. duPreez*  
I. F. duPreez  
Doctoral Candidate  
Andrews University

DO NOT RETURN THIS LETTER OF INSTRUCTIONS. THROW IT AWAY.

Random Sample of Students for the Study

**NB** Only 5 boys and 5 girls in each grade should be chosen. Take the first 5 available out of 7 in each list.

Grade 9Boys

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Girls

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Grade 10Boys

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Girls

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.



Letter of Instructions to the Students

September 1, 1976

Dear Student,

You and 39 other students have been randomly selected at your academy to help me in an important research project. The study will investigate the moral and religious problems and attitudes of academy students. We hope that the project will contribute greatly to a better understanding of the problems and attitudes of teen-agers in our schools. Your part in the project will require only the completion of a questionnaire and an answer sheet and will take just a few minutes of your time. Please use a No. 2 pencil to mark a heavy line in the correct blocks on the answer sheet. Further comments may be written on the questionnaire itself. Every question should be answered.

THIS QUESTIONNAIRE IS COMPLETELY ANONYMOUS AND CANNOT BE TRACED TO YOU. So feel quite free to answer the questions as honestly and as accurately as you can.

Answering the Questions:

Step One: Questions 1 and 2 must be answered on the answer sheet and the correct numbers must also be circled on the questionnaire.

Step Two: Questions 3 through 53 each have five possible answers. You should choose the answer which most nearly reflects your response.

EXAMPLE:QuestionnaireAnswer Sheet

strongly agree	agree	no opinion	disagree	strongly disagree
1	2	3	4	5

63. Meat eating is unhealthy.

(If you agree with this statement, but do not strongly agree with it, you would mark the 2 on the scale between (1) strongly agree and (5) strongly disagree.) Having seen this example, please proceed to mark Numbers 3 through 53 in the same way.

Step Three: Circle the numbers on the questionnaire (not on the answer sheet) which trouble you the most, for example (63.) Meat eating is unhealthy.

Step Four: Numbers 54 through 58 must be answered on the answer sheet, either Yes (1) or No (2).

EXAMPLEQuestionnaireAnswer Sheet

1 yes	2 no
-------	------

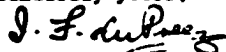
64. My parents give me much helpful counsel.

(If the answer is Yes, mark the (1) on the scale.)

Step Five: Nos. 59 and 60 must be answered on the questionnaire only.

After completing your questionnaire and answer sheet, place the answer sheet inside the questionnaire and then place both of them in the large envelope provided. The envelope will be sealed in your presence and dispatched by two fellow-students. Your assistance in this project is greatly appreciated and I wish to thank you in advance for your help.

Sincerely yours,



I. F. duPreez  
Doctoral Candidate  
Andrews University

DO NOT RETURN THIS LETTER OF INSTRUCTIONS. THROW IT AWAY.

**Random Sample of Students for the Study**

**NB** Only 5 boys and 5 girls in each grade should be chosen. Take the first 5 available out of 7 in each list.

**Grade 9****Boys**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

**Girls**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

**Grade 10****Boys**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

**Girls**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Random Sample of Students for the Study

**NB** Only 5 boys and 5 girls in each grade should be chosen. Take the first 5 available out of 7 in each list.

Grade 11Boys

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Girls

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Grade 12Boys

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Girls

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

**RELIGIOUS INVENTORY FOR TEEN-AGE YOUTH  
of the  
Seventh-day Adventist Church**

**Step one:** \*Mark on the answer sheet; also circle the numbers on this questionnaire which answer questions 1 and 2.

1. Sex of student            \*1-Boy    \*2-Girl
2. Grade of student        \*1-Freshman    \*2-Sophomore  
                                     \*3-Junior        \*4-Senior

The purpose of this inventory is to discover some of the problems facing Seventh-day Adventist teen-age youth and to identify the attitudes of these youth toward the church.

**Step two:** Every question must be answered. There are no right or wrong answers. After you have read each question carefully, mark the answer which seems best to apply to you, in the appropriate space on the answer sheet supplied. Use a No. 2 pencil. If you have additional statements to make, feel free to write the comments in the margin on this questionnaire, not on the answer sheet.

**NB. YOU WILL NOT BE IDENTIFIED. YOUR ANSWERS WILL BE COMPLETELY ANONYMOUS.**

Scale of marking    1-strongly agree    2-agree    3-no opinion  
                                     4-disagree    5-strongly disagree

**YOU AND YOUR GOD**

3. God loves me.
4. God has forgiven my sins.
5. Jesus Christ will come during my lifetime.
6. Although God is love I believe He will not be able to save me if I have one known sin in my life.
7. Heaven is a real place.
8. I need to be closer to God.
9. I would like to learn more about how to be saved.
10. God hears and answers my prayers.
11. I often worry about God's punishment at the time of the judgment.
12. The Bible teaching of death as a sleep, is clear to me.
13. Family worship is held regularly in our home.

Scale of marking      1-strongly agree      2-agree      3-no opinion  
4-disagree      5-strongly disagree

14. Aside from family worship, I regularly have personal devotions.
15. In my personal devotions, I spend some time reading books by Ellen G. White.

YOU AND YOURSELF

16. It would be all right to tell a little lie in case of an emergency.
17. Sometimes I do what the crowd does even though I know it is wrong.
18. When I ask questions I would prefer having the "reasons why" rather than "Yes" and "No" answers.
19. It's all right to attend good movies now and then in a theater if I select them carefully.
20. I need to develop more self-control.
21. I am confused sometimes about my religious beliefs.
22. I have chosen not to read novels.
23. Sometimes I feel discouraged when I fail to reach my ideals.
24. I am troubled with a guilty conscience even though I pray for forgiveness.
25. Popular dancing is wrong.
26. I have feelings against certain racial groups.
27. I have a problem determining between right and wrong music.
28. I feel self-conscious around non-Adventists.
29. I can't forget some of my mistakes in the past.
30. I have trouble with swearing and dirty stories.
31. I know I am doing something wrong but I can't change.
32. I am too sinful, God won't accept me.
33. Sometimes cheating in class is a temptation to me.
34. I have had some problems with drugs.
35. I have difficulty controlling what programs I watch on TV.
36. Sometimes sex is a problem to me.

(3)

Scale of marking      1-strongly agree    2-agree    3-no opinion  
4-disagree    5-strongly disagree

YOU AND YOUR CHURCH

37. I go to church because I think I should.
38. I go to church because my parents make me.
39. The doctrines of the church are clear to me and I believe them.
40. Most sermons in church should be more youth-centered.
41. I go to church because I want to.
42. The MV Society in my church has given me and my friends the help we have needed.
43. The church has too many restrictions.
44. We as youth need more opportunities to take a direct part in church activities.
45. The ideas of my parents are old fashioned.
46. More should be done in the church for teen-age youth.
47. If I had the chance I would rather go to public school for my education.
48. I would like to see a teen-age youth club organized in my church.
49. There is a "generation gap" between the adults and the teen-agers.
50. Weeks of Prayer have lasting effects.
51. I enjoy Weeks of Prayer for they strengthen me spiritually.
52. I attend Sabbath School because I really want to.
53. Weeks of Prayer help me with my personal problems.

Step three: Look back over items 3-53 on the questionnaire and circle the numbers of the ones which are troubling you most.

Step four: On the answer sheet mark (1) if Yes; mark (2) if No.

Add any suggestions in the spaces provided under questions 54-58 below.

54. The academy and church, through its faculty, staff and teachers, are giving me as much help with my personal problems as I really need.  
(1-Yes    2-No)

Suggestions for improvement:

(4)

In my honest opinion I consider the present youth program in the academy and the church sufficient to meet my needs and interests: (Answer in the spaces on the answer sheet. 1-Yes 2-No)

55. Spiritual activities (1-Yes 2-No)

Suggestions for improvement:

56. Educational activities (1-Yes 2-No)

Suggestions for improvement:

57. Social activities (1-Yes 2-No)

Suggestions for improvement:

58. Recreational activities (1-Yes 2-No)

Suggestions for improvement:

Step Five: Write the answers in the spaces provided below.

59. I consider the following three things (in order of importance) to be dishonest behavior on the part of academy students:

60. The following are problems in my religious life which have not been mentioned in the questionnaire:

At this stage:

PLACE BOTH THIS QUESTIONNAIRE AND YOUR ANSWER SHEET IN THE LARGE ENVELOPE PROVIDED. IT WILL BE SEALED IN YOUR PRESENCE AND MAILED BY TWO OF YOUR FELLOW STUDENTS.

NAME \_\_\_\_\_ NO. \_\_\_\_\_

SCHOOL \_\_\_\_\_ COURSE \_\_\_\_\_

SEMESTER \_\_\_\_\_ GRADE \_\_\_\_\_

INSTRUCTOR \_\_\_\_\_ DO NOT WRITE \_\_\_\_\_

TEST \_\_\_\_\_ IN THIS SPACE \_\_\_\_\_

---

SCALE OF MARKING NUMBERS 3=53:  
 1-STRONGLY AGREE    2-AGREE    3-NO OPINION  
 4-DISAGREE        5-STRONGLY DISAGREE

STUDENT NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
----------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

I	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160

BB 7004



## **APPENDIX 3**

### **Item Analysis Scales**

TABLE 77  
 FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
 SCALE FOR HYPOTHESIS 2--FIRST RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
3	SAME		.8495	.8486				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.9354	.3757	.0762	.0073	.0084
		THIRD 2	.0000	.8786	.1159	.0054	.0000	.0000
		THIRD 3	.0000	.9619	.0327	.0054	.0000	.0000
		TOTALS	.0000	.7920	.1747	.0290	.0024	.0018

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
4	SAME		.3218	.8691				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2612	.4682	.1924	.0635	.0145
		THIRD 2	.0000	.9652	.3768	.0471	.0091	.0018
		THIRD 3	.0000	.7931	.1942	.0127	.0000	.0000
		TOTALS	.0000	.5399	.3444	.0840	.0242	.0054

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
5	SAME		.4507	.8100				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0799	.2523	.9517	.0799	.0363
		THIRD 2	.0012	.1830	.3949	.4130	.0072	.0000
		THIRD 3	.0012	.4410	.3503	.2033	.0018	.0018
		TOTALS	.0012	.2346	.3325	.3894	.0296	.0127

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
6	SAME		.9878	.3329				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0617	.2142	.2033	.2922	.2287
		THIRD 2	.0012	.1304	.2899	.1467	.2409	.1902
		THIRD 3	.0000	.3376	.3194	.1180	.1214	.1034
		TOTALS	.0004	.1765	.2745	.1560	.2183	.1741

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
7	SAME		.8614	.8306				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.4991	.3848	.0871	.0163	.0127
		THIRD 2	.0000	.8243	.1558	.0181	.0018	.0000
		THIRD 3	.0000	.9345	.0617	.0018	.0000	.0000
		TOTALS	.0000	.7933	.2007	.0397	.0060	.0002

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
8	REVERSED		.9204	.4368				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0012	.9336	.3539	.0817	.0165	.0145
		THIRD 2	.0012	.6793	.2917	.0236	.0736	.0000
		THIRD 3	.0000	.7913	.2633	.0036	.0000	.0018
		TOTALS	.0012	.6641	.2830	.0363	.0060	.0054

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
9	SAME		.3830	.6083				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1688	.4356	.2831	.0762	.0363	
	THIRD 2	.0000	.3243	.6217	.1341	.0163	.0036	
	THIRD 3	.0000	.5517	.3884	.0526	.0073	.0000	
	TOTALS	.0000	.3482	.4486	.1566	.0333	.0133	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
10	SAME		.3233	.5851				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2450	.4682	.2160	.0490	.0218	
	THIRD 2	.0000	.5598	.3750	.0616	.0026	.0000	
	THIRD 3	.0000	.8131	.1742	.0073	.0036	.0018	
	TOTALS	.0000	.5393	.3392	.0949	.0187	.0079	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
11	SAME		.5031	.1050				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1924	.3485	.1688	.2341	.0563	
	THIRD 2	.0000	.2047	.3496	.2174	.1848	.0435	
	THIRD 3	.0000	.2269	.4065	.1416	.1688	.0563	
	TOTALS	.0000	.2080	.3682	.1759	.1959	.0520	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
12	SAME		.3578	.4411				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2432	.4574	.1270	.1416	.0309	
	THIRD 2	.0018	.4112	.4583	.0797	.0471	.0018	
	THIRD 3	.0000	.7114	.2577	.0145	.0145	.0018	
	TOTALS	.0006	.4553	.3912	.0738	.0677	.0115	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
13	SAME		.6270	.5053				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0454	.1216	.0889	.3575	.3866	
	THIRD 2	.0030	.1141	.2409	.1975	.2899	.1876	
	THIRD 3	.0000	.5358	.2976	.1325	.1488	.0883	
	TOTALS	.0000	.1691	.2201	.1397	.2654	.2098	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
14	SAME		.6212	.6462				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0109	.0672	.1198	.4713	.3303	
	THIRD 2	.0000	.0616	.3029	.2264	.3814	.0360	
	THIRD 3	.0018	.2977	.4301	.1996	.1234	.0072	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL			POINT MULTIPLIER		
13	NAME		RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	PROPORTIONAL RESPONSE	OMIT						
	THIRD 1	.0000	.0073	.0436	.0871	.3953	.6625	
	THIRD 2	.0000	.0326	.2011	.2609	.3822	.1232	
	THIRD 3	.0018	.2105	.3539	.2214	.1779	.0345	
	TOTALS	.0006	.0834	.1995	.1898	.3198	.2068	

TABLE 30

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 3--FIRST RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
16	REVERSED		.8029	.3675				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1162	.2759	.2323	.2069	.1688	
	THIRD 2	.0000	.0598	.2083	.2138	.3050	.2101	
	THIRD 3	.0000	.0454	.0762	.1416	.2848	.4501	
	TOTALS	.0000	.0738	.1868	.1999	.2672	.2763	
17	REVERSED		.6776	.4964				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.1906	.4570	.0853	.0436	.0218	
	THIRD 2	.0000	.0761	.4614	.1359	.1250	.0416	
	THIRD 3	.0018	.0309	.3448	.1343	.2777	.2105	
	TOTALS	.0012	.0992	.3345	.1185	.1487	.0979	
18	SAME		.3328	.0618				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.5408	.3049	.1053	.0363	.0127	
	THIRD 2	.0018	.4964	.3551	.0833	.0435	.0199	
	THIRD 3	.0000	.5644	.3376	.0599	.0290	.0091	
	TOTALS	.0006	.5339	.3325	.0828	.0363	.0139	
19	REVERSED		.6411	.4238				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.5230	.3938	.1307	.0944	.0581	
	THIRD 2	.0000	.1612	.3678	.1504	.1449	.1757	
	THIRD 3	.0000	.1053	.2523	.1107	.1942	.3376	
	TOTALS	.0000	.1965	.3380	.1306	.1445	.1904	
20	REVERSED		.8090	.1710				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4392	.4120	.1053	.0290	.0148	
	THIRD 2	.0018	.3080	.4583	.1395	.0452	.0272	
	THIRD 3	.0000	.2958	.4644	.1071	.0962	.0363	
	TOTALS	.0006	.3476	.4480	.1173	.0635	.0260	
21	REVERSED		.6832	.4707				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3209	.4603	.1198	.0563	.0161	
	THIRD 2	.0018	.1198	.4420	.1739	.2210	.0417	
	THIRD 3	.0000	.0672	.3339	.1125	.3376	.1488	
	TOTALS	.0006	.3789	.4198	.1354	.2090	.0495	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
22	SAME		.6874					.3830
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0369	.1089	.2468	.3664	.2468	
	THIRD 2	.0000	.0598	.1739	.2373	.3841	.1449	
	THIRD 3	.0000	.1960	.2142	.2777	.2269	.0852	
	TOTALS	.0000	.0955	.1457	.2539	.3289	.1590	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
23	REVERSED		.7986					.1766
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3575	.5082	.1016	.0254	.0073	
	THIRD 2	.0000	.2011	.5815	.1304	.0725	.0145	
	THIRD 3	.0018	.2323	.5408	.1089	.0962	.0200	
	TOTALS	.0006	.2636	.5435	.1137	.0647	.0139	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
24	REVERSED		.4262					.4293
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0036	.2123	.4138	.2123	.1162	.0417	
	THIRD 2	.0000	.1087	.3587	.2138	.2572	.0616	
	THIRD 3	.0000	.0526	.2142	.1488	.4083	.1760	
	TOTALS	.0012	.1245	.3289	.1917	.2606	.0931	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
25	SAME		.9497					.3300
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1270	.1670	.2813	.2396	.1851	
	THIRD 2	.0000	.2047	.2156	.2572	.1848	.1377	
	THIRD 3	.0018	.4083	.2323	.1760	.0926	.0889	
	TOTALS	.0006	.2467	.2050	.2382	.1723	.1372	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
26	REVERSED		.4768					.3697
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1416	.2923	.2069	.1760	.2232	
	THIRD 2	.0018	.0471	.1812	.2192	.2192	.2318	
	THIRD 3	.0000	.0163	.0799	.1397	.2613	.0827	
	TOTALS	.0006	.0683	.1711	.1886	.2189	.3528	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
27	REVERSED		.9397					.3866
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1760	.2740	.2359	.1779	.1361	
	THIRD 2	.0000	.0726	.2388	.1993	.3168	.1739	
	THIRD 3	.0070	.0284	.1282	.1670	.3938	.0886	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
28	REVERSED		.5846				.2195	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1107	.2087	.1942	.2632	.2232	
	THIRD 2	.0018	.0380	.1703	.1721	.3696	.2482	
	THIRD 3	.0018	.0327	.1325	.1180	.4011	.3140	
	TOTALS	.0012	.0605	.1705	.1614	.3446	.2618	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
29	REVERSED		.7225				.2835	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.3321	.4882	.0926	.0617	.0236	
	THIRD 2	.0000	.1649	.5362	.1248	.1504	.0217	
	THIRD 3	.0000	.0926	.4047	.1216	.2940	.0871	
	TOTALS	.0006	.1965	.4764	.1137	.1687	.0441	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
30	REVERSED		.5323				.5809	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.2033	.3920	.1924	.1648	.0417	
	THIRD 2	.0018	.0489	.2210	.2210	.3188	.1884	
	THIRD 3	.3000	.0073	.0817	.1034	.3339	.4737	
	TOTALS	.0012	.0865	.2316	.1723	.2739	.2346	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
31	REVERSED		.6133				.4999	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2468	.4047	.1942	.1252	.0290	
	THIRD 2	.0000	.0870	.3025	.2681	.2899	.0525	
	THIRD 3	.0000	.0345	.1688	.1742	.4102	.2123	
	TOTALS	.0000	.1227	.2920	.2122	.2751	.0979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
32	REVERSED		.3701				.4245	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0690	.1034	.2305	.3031	.2940	
	THIRD 2	.0000	.0217	.0489	.1196	.3678	.4420	
	THIRD 3	.0018	.0054	.0091	.0417	.2250	.7169	
	TOTALS	.0006	.0320	.0536	.1306	.2987	.4843	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
33	REVERSED		.4448				.4600	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2722	.8064	.0835	.0817	.0863	
	THIRD 2	.0000	.1141	.4969	.1733	.1848	.1069	
	THIRD 3	.0000	.0436	.3122	.0981	.2622	.2230	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL			POINT MULTISERIAL R		
34	REVERSED		.5374			.3987		
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1016	.1633	.1053	.1307	.4991	
	THIRD 2	.3000	.0272	.0761	.0652	.1286	.7029	
	THIRD 3	.0000	.0091	.0218	.0254	.0744	.8633	
	TOTALS	.0000	.0489	.0871	.0653	.1112	.6900	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL			POINT MULTISERIAL R		
35	REVERSED		.5660			.3495		
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2341	.3049	.1887	.1525	.1198	
	THIRD 2	.0018	.0870	.2572	.1757	.3098	.1685	
	THIRD 3	.0000	.0544	.1779	.1198	.3339	.3140	
	TOTALS	.0006	.1252	.2467	.1614	.2654	.2007	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL			POINT MULTISERIAL R		
36	REVERSED		.5721			.4902		
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3122	.3067	.2015	.0889	.0907	
	THIRD 2	.3000	.0815	.2446	.2446	.2331	.1902	
	THIRD 3	.0000	.0363	.1652	.1307	.2305	.4374	
	TOTALS	.0000	.1433	.2388	.1923	.1862	.2394	



TABLE 39

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 4--FIRST RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL					POINT MULTISERIAL R
37	SAME		.4384					.3646
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0835	.3575	.2123	.2015	.1452	
	THIRD 2	.0000	.1848	.4837	.1178	.1612	.0525	
	THIRD 3	.0000	.3393	.3630	.0563	.1053	.0762	
	TOTALS	.0000	.2225	.4018	.1238	.1560	.0913	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL					POINT MULTISERIAL R
38	REVERSED		.4582					.4188
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1906	.3122	.1742	.1815	.1416	
	THIRD 2	.0000	.0308	.1069	.1322	.4420	.2840	
	THIRD 3	.0000	.0054	.0254	.0436	.3085	.6171	
	TOTALS	.0000	.0756	.1481	.1167	.3108	.3489	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL					POINT MULTISERIAL R
39	SAME		.6089					.4689
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0762	.2432	.2722	.3031	.1093	
	THIRD 2	.0018	.1178	.4493	.2699	.1377	.0236	
	THIRD 3	.0000	.3212	.4592	.1107	.0598	.0091	
	TOTALS	.0006	.1717	.3839	.2177	.1802	.0459	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL					POINT MULTISERIAL R
40	REVERSED		.7752					.2914
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4682	.3140	.1615	.0454	.0109	
	THIRD 2	.0000	.2917	.4257	.2029	.0725	.0072	
	THIRD 3	.0000	.1869	.3612	.2795	.1325	.0399	
	TOTALS	.0000	.3156	.3670	.2144	.0834	.0193	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL					POINT MULTISERIAL R
41	SAME		.4195					.6874
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0871	.2958	.2541	.2432	.1198	
	THIRD 2	.0000	.3025	.5294	.1268	.0362	.0091	
	THIRD 3	.0000	.6751	.2995	.0200	.0054	.0000	
	TOTALS	.0000	.3549	.3726	.1336	.0949	.0489	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL					POINT MULTISERIAL R
42	SAME		.7215					.4129
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0127	.0436	.1942	.3466	.0029	
	THIRD 2	.0000	.7199	.0688	.3605	.3243	.2264	
	THIRD 3	.0000	.0726	.2196	.3848	.2105	.1125	
	TOTALS	.0000	.7351	.1160	.3132	.2938	.2473	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	REVERSED		.8418					.6182
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2396	.3249	.2577	.1470	.0309	
	THIRD 2	.0000	.0380	.1286	.3514	.3841	.0978	
	THIRD 3	.0000	.0200	.0348	.1325	.0592	.3539	
	TOTALS	.0000	.0992	.1626	.2473	.3301	.1688	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
44	REVERSED		.7724					-.0841
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2450	.3702	.2831	.0726	.0290	
	THIRD 2	.0000	.2482	.4837	.1920	.0652	.0109	
	THIRD 3	.0000	.2958	.4664	.1543	.0726	.0109	
	TOTALS	.0000	.2630	.4401	.2098	.0701	.0149	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
45	REVERSED		.5185					.4714
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.2051	.2704	.1833	.2559	.0835	
	THIRD 2	.0036	.0562	.1667	.2210	.3949	.1576	
	THIRD 3	.0000	.0145	.0672	.1252	.4410	.3521	
	TOTALS	.0018	.0919	.1681	.1765	.3640	.1977	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
46	REVERSED		.8245					.1469
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.4338	.4174	.1214	.0145	.0109	
	THIRD 2	.0000	.3514	.4982	.1214	.0217	.0072	
	THIRD 3	.0000	.2632	.4991	.1779	.0490	.0109	
	TOTALS	.0006	.3495	.4716	.1403	.0284	.0097	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
47	REVERSED		.4125					.5313
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.1996	.1416	.2196	.1924	.2450	
	THIRD 2	.0000	.0380	.0598	.1922	.2953	.4847	
	THIRD 3	.0000	.0218	.0109	.0581	.1615	.7477	
	TOTALS	.0006	.0868	.0707	.1433	.2144	.4828	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
48	REVERSED		.7543					-.0389
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.2484	.3294	.3103	.0617	.0281	
	THIRD 2	.0000	.7591	.3877	.2963	.0489	.0091	
	THIRD 3	.0000	.2341	.3884	.3085	.0581	.0109	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	REVERSED		.6418					.6182
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2396	.3249	.2577	.1470	.0309
		THIRD 2	.0000	.0380	.1286	.3514	.3841	.0978
		THIRD 3	.0000	.0200	.0345	.1325	.4592	.3539
		TOTALS	.0000	.0992	.1626	.2473	.3301	.1608

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
44	REVERSED		.7724					.0841
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2450	.3702	.2831	.0724	.0290
		THIRD 2	.0000	.2482	.4837	.1920	.0652	.0109
		THIRD 3	.0000	.2958	.4664	.1543	.0726	.0109
		TOTALS	.0000	.2630	.4401	.2098	.0701	.0169

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
45	REVERSED		.5185					.4714
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0018	.2051	.2704	.1833	.2559	.0835
		THIRD 2	.0036	.0562	.1667	.2210	.3949	.1576
		THIRD 3	.0000	.0145	.0672	.1252	.4410	.3521
		TOTALS	.0018	.0919	.1681	.1765	.3640	.1977

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
46	REVERSED		.8245					.1669
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0018	.4338	.4174	.1216	.0145	.0109
		THIRD 2	.0000	.3514	.4982	.1214	.0217	.0072
		THIRD 3	.0000	.2632	.4991	.1779	.0490	.0109
		TOTALS	.0006	.3495	.4716	.1403	.0284	.0097

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
47	REVERSED		.4125					.5313
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0018	.1996	.1416	.2196	.1924	.2450
		THIRD 2	.0000	.0380	.0598	.1522	.2953	.4547
		THIRD 3	.0000	.0218	.0109	.0581	.1615	.7477
		TOTALS	.0006	.0865	.0707	.1433	.2164	.4828

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
48	REVERSED		.7843					.0389
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0018	.2486	.3394	.3103	.0617	.0341
		THIRD 2	.0000	.0891	.3877	.2983	.0489	.0091
		THIRD 3	.0000	.0341	.3884	.3085	.0581	.0109
		TOTALS	.0006	.0877	.3877	.3085	.0581	.0109

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
49	REVERSED		.6797					.6647
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.9539	.3793	.1670	.0762	.0218	
	THIRD 2	.0000	.1286	.3895	.2808	.1558	.0463	
	THIRD 3	.0000	.0544	.2396	.2904	.3103	.1053	
	TOTALS	.0006	.1790	.3362	.2461	.1808	.0574	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
50	SAME		.6325					.5312
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.0218	.0962	.1815	.3866	.3122	
	THIRD 2	.0000	.6452	.2518	.2645	.3406	.0779	
	THIRD 3	.0018	.1525	.4410	.1906	.1797	.0345	
	TOTALS	.0012	.0798	.2630	.2122	.3023	.1415	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
51	SAME		.5073					.6672
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0436	.1670	.2940	.3085	.1849	
	THIRD 2	.0000	.1467	.4239	.2880	.1286	.0127	
	THIRD 3	.0000	.4211	.4446	.1053	.0272	.0018	
	TOTALS	.0000	.2037	.3452	.2291	.1548	.0671	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
52	SAME		.4809					.6666
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0490	.2178	.2740	.3158	.1424	
	THIRD 2	.0000	.1540	.4982	.2591	.0743	.0145	
	THIRD 3	.0000	.4828	.4238	.0599	.0181	.0054	
	TOTALS	.0000	.2285	.3833	.1977	.1360	.0544	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
53	SAME		.5509					.6173
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0345	.1416	.2359	.3721	.2160	
	THIRD 2	.0000	.0870	.3714	.3116	.1938	.0362	
	THIRD 3	.0000	.3194	.4682	.1633	.0417	.0073	
	TOTALS	.0000	.1469	.3271	.2370	.2025	.0865	

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 3--FIRST RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
5	REVERSED		.7493					.3486
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0036	.3430	.3612	.2849	.0054	.0018
		THIRD 2	.0000	.2409	.3714	.3750	.0109	.0018
		THIRD 3	.0000	.1198	.2650	.8082	.0726	.0345
		TOTALS	.0012	.2346	.3325	.3894	.0296	.0127

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
6	REVERSED		.6122					.1833
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2704	.2886	.1053	.1506	.1881
		THIRD 2	.0018	.1721	.2717	.1467	.2663	.1413
		THIRD 3	.0000	.0871	.2632	.2160	.2377	.1960
		TOTALS	.0006	.1765	.2745	.1560	.2183	.1741

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
7	REVERSED		.9386					.3893
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.9111	.0871	.0018	.0000	.0000
		THIRD 2	.0000	.8025	.1721	.0163	.0036	.0054
		THIRD 3	.0000	.5463	.3430	.0889	.0145	.0073
		TOTALS	.0000	.7533	.2007	.0357	.0060	.0042

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
10	REVERSED		.8767					.4971
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.7931	.1815	.0218	.0036	.0000
		THIRD 2	.0000	.5562	.3859	.0489	.0054	.0036
		THIRD 3	.0000	.2686	.4561	.2142	.0472	.0200
		TOTALS	.0000	.5393	.3392	.0949	.0187	.0079

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
11	REVERSED		.6969					.1492
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.1633	.3412	.1779	.2309	.0871
		THIRD 2	.0000	.1757	.4330	.1920	.1739	.0254
		THIRD 3	.0000	.2849	.3303	.1579	.1833	.0436
		TOTALS	.0000	.2080	.3682	.1799	.1999	.0520

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
12	REVERSED		.8422					.3312
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.6443	.3013	.0290	.0236	.0018
		THIRD 2	.0018	.4149	.4807	.0725	.0507	.0054
		THIRD 3	.0000	.3067	.4174	.1198	.1289	.0272
		TOTALS	.0006	.4593	.3912	.0738	.0677	.0115

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
14	REVERSED		.5788	.5782				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2323	.4047	.1688	.1742	.0200	
	THIRD 2	.0000	.0634	.2754	.2500	.3569	.0543	
	THIRD 3	.0018	.0145	.1198	.1270	.4156	.3242	
	TOTALS	.0006	.1034	.2664	.1820	.3156	.1318	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
15	REVERSED		.5266	.4101				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2087	.3593	.1724	.2105	.0490	
	THIRD 2	.0000	.0362	.1703	.3025	.3659	.1250	
	THIRD 3	.0018	.0054	.0690	.0944	.3829	.4465	
	TOTALS	.0006	.0834	.1995	.1898	.3198	.2068	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
16	SAME		.6971	.4850				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0363	.0472	.1252	.2995	.4918	
	THIRD 2	.0000	.0634	.1574	.2011	.3424	.2355	
	THIRD 3	.0000	.1216	.3557	.2613	.1597	.1016	
	TOTALS	.0000	.0738	.1868	.1959	.2672	.2763	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
17	SAME		.5224	.4029				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.0381	.3775	.1252	.2577	.1996	
	THIRD 2	.0000	.0833	.6123	.1268	.1304	.0471	
	THIRD 3	.0018	.1760	.6134	.1034	.0581	.0472	
	TOTALS	.0012	.0992	.5345	.1185	.1487	.0979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
19	SAME		.5589	.5767				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0508	.1960	.1071	.2105	.4356	
	THIRD 2	.0000	.1467	.4094	.1757	.1667	.1044	
	THIRD 3	.0000	.3920	.4083	.1089	.0563	.0245	
	TOTALS	.0000	.1965	.3380	.1306	.1445	.1904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
22	REVERSED		.5424	.4916				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2049	.2613	.2777	.2033	.0508	
	THIRD 2	.0000	.0580	.1894	.2989	.3041	.1196	
	THIRD 3	.0000	.0218	.0762	.1081	.4182	.3067	
	TOTALS	.0000	.0845	.0847	.0829	.0944	.0844	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
25	REVERSED		*6503					*8199
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	*5045	*2396	*1270	*0563	*0726	
	THIRD 2	.0018	*1884	*2428	*3062	*1612	*0996	
	THIRD 3	.0000	*0472	*1325	*2813	*2995	*2396	
	TOTALS	.0006	*2467	*2050	*2382	*1723	*1372	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
27	SAME		*6603					*1355
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	*0544	*1833	*1561	*3448	*2643	
	THIRD 2	.0000	*0870	*2663	*2065	*3188	*1214	
	THIRD 3	.0000	*1325	*1851	*2396	*2243	*2160	
	TOTALS	.0000	*0913	*2116	*2007	*2963	*1995	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
28	REVERSED		*4446					*1568
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	*0744	*2214	*1615	*3358	*2051	
	THIRD 2	.0018	*0507	*1812	*1812	*3587	*2264	
	THIRD 3	.0000	*0563	*1089	*1416	*3394	*3539	
	TOTALS	.0012	*0605	*1705	*1614	*3446	*2668	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
30	SAME		*6677					*5140
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	*0218	*0871	*0926	*3122	*4846	
	THIRD 2	.0018	*0743	*2681	*1938	*3279	*1341	
	THIRD 3	.0000	*1633	*3394	*2305	*1815	*0853	
	TOTALS	.0012	*0865	*2316	*1723	*2739	*2346	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
33	SAME		*5555					*3970
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	*0581	*3485	*0544	*2377	*3013	
	THIRD 2	.0000	*1250	*4710	*1051	*1721	*1268	
	THIRD 3	.0000	*2468	*4900	*0853	*1198	*0581	
	TOTALS	.0000	*1433	*4265	*0816	*1745	*1420	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
34	SAME		*8626					*4246
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	*0109	*0218	*0109	*0708	*0887	
	THIRD 2	.0000	*0326	*0634	*0688	*1304	*7047	
	THIRD 3	.0000	*0944	*1740	*1162	*1328	*4809	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
35	SAME		.4340	.1821				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0817	.2541	.1089	.2704	.2849
	THIRD	2	.0018	.1033	.2627	.1920	.2971	.1431
	THIRD	3	.0000	.1906	.2232	.1833	.2287	.1742
	TOTALS	.0006	.1252	.2467	.1614	.2654	.2007	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
36	SAME		.4279	.3417				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0490	.1940	.1397	.2105	.3848
	THIRD	2	.0000	.1159	.2627	.2120	.2083	.2011
	THIRD	3	.0000	.2450	.2577	.2250	.1397	.1325
	TOTALS	.0000	.1433	.2388	.1923	.1862	.2394	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	SAME		.4582	.5833				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0345	.0345	.1470	.4374	.3466
	THIRD	2	.0000	.0471	.1467	.3261	.3768	.1033
	THIRD	3	.0000	.2160	.3067	.2686	.1760	.0387
	TOTALS	.0000	.0992	.1626	.2473	.3301	.1608	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
45	SAME		.4815	.4098				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0018	.0345	.0817	.1343	.4356	.3122
	THIRD	2	.0018	.0580	.1449	.2120	.4058	.1775
	THIRD	3	.0018	.1833	.2777	.1833	.2505	.1034
	TOTALS	.0018	.0919	.1681	.1765	.3640	.1977	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
49	SAME		.5203	.4067				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0635	.2559	.2868	.2922	.1016
	THIRD	2	.0018	.1341	.3714	.2717	.1793	.0417
	THIRD	3	.0000	.3394	.3811	.1797	.0708	.0290
	TOTALS	.0006	.1790	.3362	.2461	.1808	.0574	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
30	REVERSED		.8678	.4299				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0018	.1343	.4047	.1978	.2067	.0524
	THIRD	2	.0018	.0707	.2609	.2627	.3243	.0797
	THIRD	3	.0000	.0345	.1234	.1760	.3739	.2922
	TOTALS	.0000	.0700	.0700	.0700	.0700	.0700	.0700



FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
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ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
3	REVERSED		.9568				.8480	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.9655	.0327	.0018	.0000	.0000
	THIRD	2	.0000	.8222	.1105	.0072	.0000	.0000
	THIRD	3	.0000	.5281	.3811	.0780	.0073	.0054
	TOTALS	.0000	.7920	.1747	.0290	.0024	.0018	
4	REVERSED		.8782				.5679	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.8149	.1652	.0145	.0036	.0018
	THIRD	2	.0000	.5707	.3841	.0380	.0072	.0000
	THIRD	3	.0000	.2341	.4900	.1996	.0617	.0145
	TOTALS	.0000	.5399	.3464	.0840	.0242	.0054	
6	REVERSED		.6122				.1969	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.2995	.2848	.1039	.1379	.1670
	THIRD	2	.0018	.1504	.2790	.1436	.2409	.1793
	THIRD	3	.0000	.0799	.2577	.2105	.2759	.1760
	TOTALS	.0006	.1745	.2745	.1560	.2183	.1741	
8	REVERSED		.9204				.8159	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.8220	.1180	.0000	.0000	.0000
	THIRD	2	.0000	.6721	.3225	.0054	.0000	.0000
	THIRD	3	.0036	.4501	.4083	.1034	.0181	.0163
	TOTALS	.0012	.6681	.2830	.0363	.0060	.0054	
9	REVERSED		.8170				.5817	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.5824	.3597	.0544	.0073	.0000
	THIRD	2	.0000	.3388	.5614	.0815	.0145	.0036
	THIRD	3	.0000	.1234	.4283	.3339	.0780	.0363
	TOTALS	.0000	.3482	.4486	.1564	.0333	.0133	
10	REVERSED		.8767				.6145	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.8240	.1670	.0054	.0036	.0000
	THIRD	2	.0000	.9815	.3603	.0543	.0036	.0000
	THIRD	3	.0000	.2123	.4900	.2290	.0490	.0236
	TOTALS	.0000	.5393	.3392	.0949	.0187	.0079	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
11	REVERSED		.6969					.0343
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2015	.3793	.1470	.1833	.0889	
	THIRD 2	.0000	.2138	.3949	.1830	.1848	.0236	
	THIRD 3	.0000	.2087	.3303	.1978	.2196	.0436	
	TOTALS	.0000	.2080	.3682	.1759	.1959	.0520	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
16	REVERSED		.5788					.6312
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2613	.4410	.1597	.1234	.0145	
	THIRD 2	.0018	.0344	.2862	.2337	.3750	.0688	
	THIRD 3	.0000	.0145	.0726	.1525	.4483	.3122	
	TOTALS	.0006	.1034	.2666	.1820	.3156	.1318	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
15	REVERSED		.5266					.6149
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2142	.3811	.1742	.1833	.0472	
	THIRD 2	.0018	.0290	.1793	.2627	.3913	.1359	
	THIRD 3	.0000	.0073	.0381	.1325	.3848	.4374	
	TOTALS	.0006	.0834	.1995	.1898	.3198	.2068	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
20	REVERSED		.8050					.3729
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.5354	.3848	.0345	.0345	.0109	
	THIRD 2	.0000	.3025	.5127	.1178	.0489	.0181	
	THIRD 3	.0018	.2051	.4374	.1996	.1071	.0490	
	TOTALS	.0006	.9476	.4450	.1173	.0625	.0260	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
23	REVERSED		.7956					.3175
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3956	.5209	.0472	.0309	.0054	
	THIRD 2	.0000	.2391	.4069	.0978	.0489	.0072	
	THIRD 3	.0018	.1561	.5027	.1960	.1143	.0290	
	TOTALS	.0006	.2436	.5435	.1137	.0647	.0139	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
24	REVERSED		.6262					.1547
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1470	.3993	.1107	.2486	.1143	
	THIRD 2	.0018	.1196	.3884	.1993	.2301	.0688	
	THIRD 3	.0018	.0871	.2468	.2680	.3031	.0962	
	TOTALS	.0012	.1248	.3289	.1917	.2466	.0931	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
29	SAME		.4775	.0169				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.2069	.4392	.1034	.1433	.0472	
	THIRD	2 .0018	.1938	.8489	.0870	.1449	.0236	
	THIRD	3 .0000	.1887	.4410	.1506	.1779	.0417	
	TOTALS	.0006	.1965	.4764	.1137	.1687	.0441	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
31	SAME		.5867	.2490				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.0962	.2069	.1397	.3485	.2087	
	THIRD	2 .0000	.1196	.3098	.2283	.2971	.0453	
	THIRD	3 .0000	.1525	.3593	.2686	.1797	.0399	
	TOTALS	.0000	.1227	.2920	.2122	.2751	.0979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
32	SAME		.8299	.4246				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0018	.0109	.0163	.0363	.2033	.7314	
	THIRD	2 .0000	.0362	.0417	.1014	.3297	.4909	
	THIRD	3 .0000	.0490	.1034	.2541	.3630	.2305	
	TOTALS	.0006	.0320	.0538	.1306	.2987	.4843	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
41	REVERSED		.7805	.4897				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.6715	.2868	.0272	.0091	.0054	
	THIRD	2 .0000	.3043	.5181	.1341	.0344	.0091	
	THIRD	3 .0000	.0889	.3158	.2396	.2414	.1143	
	TOTALS	.0000	.3549	.3736	.1336	.0949	.0429	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
44	REVERSED		.7724	.4407				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.4301	.4519	.0799	.0290	.0091	
	THIRD	2 .0000	.2301	.5290	.1902	.0489	.0018	
	THIRD	3 .0000	.1289	.3394	.3893	.1325	.0399	
	TOTALS	.0000	.2630	.4401	.2098	.0701	.0169	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
31	REVERSED		.6927	.7057				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.4701	.4301	.0780	.0181	.0036	
	THIRD	2 .0000	.4232	.4420	.3043	.1141	.0163	
	THIRD	3 .0000	.0181	.1633	.3049	.3381	.1818	
	TOTALS	.0000	.0000	.0000	.0000	.0000	.0000	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL			POINT MULTISERIAL R		
32	REVERSED		*7191			*6816		
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	*5100	*4011	*0690	*0145	*0054	
	THIRD 2	.0000	*1504	*5018	*2591	*0779	*0169	
	THIRD 3	.0000	*0254	*2468	*2650	*3158	*1470	
	TOTALS	.0000	*2285	*3833	*1977	*1360	*0544	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL			POINT MULTISERIAL R		
33	REVERSED		*6491			*6531		
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	*3557	*4501	*1343	*0399	*0200	
	THIRD 2	.0000	*0725	*3986	*3188	*1775	*0326	
	THIRD 3	.0000	*0127	*1325	*2577	*3902	*2069	
	TOTALS	.0000	*1469	*3271	*2370	*2025	*0865	

TABLE 02

FREQUENCY DISTRIBUTION OF ITH ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 7--FIRST RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
17	SAME		.9224					.4184
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0018	.0369	.3721	.1325	.2595	.2033
	THIRD	2	.0000	.0797	.6196	.1159	.1341	.0507
	THIRD	3	.0018	.1869	.6114	.1071	.0526	.0399
	TOTALS	.0036	.0992	.8345	.1185	.1447	.0979	
19	SAME		.5589					.5660
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0490	.2087	.1053	.2051	.4319
	THIRD	2	.0000	.1612	.3768	.1739	.1757	.1123
	THIRD	3	.0000	.3793	.4283	.1125	.0526	.0272
	TOTALS	.0000	.1965	.3380	.1306	.1445	.1904	
21	SAME		.5168					.3838
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0018	.0672	.3521	.1089	.3339	.1361
	THIRD	2	.0000	.1304	.4891	.1612	.1757	.0435
	THIRD	3	.0000	.3140	.4156	.1361	.1053	.0290
	TOTALS	.0036	.1705	.4190	.1354	.2050	.0695	
22	REVERSED		.5426					.4812
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.2051	.2668	.2740	.2069	.0472
	THIRD	2	.0000	.0543	.1486	.3007	.3768	.1196
	THIRD	3	.0000	.0272	.0817	.1869	.3938	.3103
	TOTALS	.0000	.0955	.1457	.2539	.3259	.1590	
25	REVERSED		.6503					.5119
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.6991	.2269	.1452	.0635	.0683
	THIRD	2	.0018	.1703	.2681	.2917	.1612	.1069
	THIRD	3	.0000	.0708	.1198	.2777	.2922	.2396
	TOTALS	.0036	.2467	.2090	.2382	.1723	.1372	
27	SAME		.6603					.1669
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0599	.1724	.1416	.3787	.2809
	THIRD	2	.0000	.0743	.2645	.2138	.3134	.1341
	THIRD	3	.0000	.1397	.1978	.2448	.2019	.2102
	TOTALS	.0000	.0913	.2116	.2907	.2969	.1999	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
28	REVERSED		.4846					.1432
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.0744	.2287	.1470	.3430	.2051	
	THIRD 2	.0018	.0489	.1775	.1757	.3459	.2301	
	THIRD 3	.0000	.0581	.1053	.1615	.3249	.3503	
	TOTALS	.0012	.0605	.1705	.1614	.3446	.2618	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
30	SAME		.6677					.8339
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0234	.0889	.0742	.3249	.4864	
	THIRD 2	.0000	.0598	.2627	.2101	.3080	.1594	
	THIRD 3	.0036	.1760	.3430	.2305	.1847	.0581	
	TOTALS	.0012	.0865	.2916	.1723	.2739	.2346	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
34	SAME		.8626					.4754
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0073	.0127	.0145	.0563	.9093	
	THIRD 2	.0000	.0290	.0652	.0435	.1341	.7283	
	THIRD 3	.0000	.1014	.1833	.1379	.1434	.4338	
	TOTALS	.0000	.0459	.0871	.0653	.1112	.6904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
35	SAME		.6340					.2185
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0853	.2250	.1143	.2886	.2848	
	THIRD 2	.0018	.0960	.2862	.1721	.2899	.1540	
	THIRD 3	.0000	.1942	.2287	.1978	.2178	.1618	
	TOTALS	.0006	.1252	.2467	.1614	.2654	.2007	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
36	SAME		.6279					.3718
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0708	.1688	.1343	.2160	.4102	
	THIRD 2	.0000	.0994	.2953	.2045	.2210	.1775	
	THIRD 3	.0000	.2595	.2523	.2359	.1214	.1307	
	TOTALS	.0000	.1433	.2388	.1923	.1862	.2394	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
37	REVERSED		.7016					.3372
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3986	.3702	.0490	.0942	.0889	
	THIRD 2	.0000	.2029	.4819	.1014	.1630	.0607	
	THIRD 3	.0000	.0490	.3981	.2359	.2087	.1343	
	TOTALS	.0000	.0882	.4411	.0800	.1800	.0800	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
38	SAME		.7418					.8708
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0200	.0345	.0508	.2976	.5971	
	THIRD 2	.0000	.0290	.1014	.1105	.4366	.3225	
	THIRD 3	.0000	.1779	.3085	.1887	.1978	.1270	
	TOTALS	.0000	.0756	.1481	.1167	.3108	.3489	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
39	REVERSED		.6911					.4986
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3376	.4719	.1034	.0762	.0109	
	THIRD 2	.0000	.1196	.4638	.2264	.1649	.0254	
	THIRD 3	.0018	.0581	.2160	.3230	.2995	.1016	
	TOTALS	.0006	.1717	.3839	.2177	.1802	.0459	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
41	REVERSED		.7805					.6618
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.6679	.3031	.0236	.0036	.0018	
	THIRD 2	.0000	.3182	.5181	.1141	.0399	.0127	
	THIRD 3	.0000	.0817	.2995	.2632	.2414	.1143	
	TOTALS	.0000	.3549	.3736	.1336	.0949	.0429	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	SAME		.6882					.8980
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0309	.0436	.1452	.4446	.3258	
	THIRD 2	.0000	.0399	.1214	.3025	.4167	.1196	
	THIRD 3	.0000	.2269	.3230	.2940	.1289	.0272	
	TOTALS	.0000	.0992	.1626	.2473	.3301	.1408	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
47	SAME		.9875					.8408
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0236	.0109	.0436	.1579	.7641	
	THIRD 2	.0000	.0417	.0471	.1630	.2736	.4746	
	THIRD 3	.0018	.1942	.1543	.2232	.2178	.2087	
	TOTALS	.0006	.0865	.0707	.1433	.2164	.4825	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
52	REVERSED		.7191					.6393
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4719	.4445	.0981	.0163	.0073	
	THIRD 2	.0000	.1630	.4891	.2301	.1014	.0163	
	THIRD 3	.0000	.0808	.2142	.3049	.2904	.1397	
	TOTALS	.0000	.2285	.3833	.1977	.1368	.0344	

TABLE 63

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 6--FIRST RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
37	REVERSED		.7016					.4751
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.4628	.3466	.0399	.0760	.0726
	THIRD	2	.0000	.1504	.5217	.0978	.1703	.0598
	THIRD	3	.0000	.0544	.3358	.2486	.2196	.1416
	TOTALS	.0000	.2225	.4015	.1288	.1560	.0913	
38	SAME		.7418					.6080
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0145	.0363	.0454	.2722	.6316
	THIRD	2	.0000	.0308	.0994	.1159	.4563	.2953
	THIRD	3	.0000	.1815	.3085	.1887	.2015	.1198
	TOTALS	.0000	.0756	.1481	.1167	.3108	.3489	
40	REVERSED		.7752					.8129
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.4192	.3612	.1470	.0581	.0145
	THIRD	2	.0000	.2572	.4130	.2319	.0797	.0181
	THIRD	3	.0000	.2704	.3267	.3650	.1125	.0254
	TOTALS	.0000	.3156	.3670	.2106	.0834	.0193	
41	REVERSED		.7805					.7516
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.6987	.2777	.0181	.0036	.0018
	THIRD	2	.0000	.3007	.5543	.1123	.0290	.0036
	THIRD	3	.0000	.0693	.2886	.2704	.2523	.1234
	TOTALS	.0000	.3549	.3736	.1336	.0949	.0489	
42	REVERSED		.4785					.3607
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0799	.1978	.3503	.1996	.1724
	THIRD	2	.0000	.0181	.0924	.3351	.3514	.2029
	THIRD	3	.0000	.0073	.0417	.2941	.3303	.3666
	TOTALS	.0000	.0351	.1134	.3132	.2938	.2473	
44	REVERSED		.7724					.8393
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.4900	.4392	.0963	.0145	.0000
	THIRD	2	.0000	.1993	.5048	.1793	.0493	.0072
	THIRD	3	.0000	.0798	.3122	.3938	.1906	.0436
	TOTALS	.0000	.2630	.4461	.2074	.0791	.0149	



ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
46	REVERSED		.4245					.3890
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.5390	.3975	.0490	.0145	.0000	
	THIRD	2 .0000	.2862	.8507	.1304	.0290	.0036	
	THIRD	3 .0015	.2232	.4664	.2414	.0417	.0254	
	TOTALS	.0006	.3495	.4716	.1403	.0284	.0097	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
48	REVERSED		.7543					.5310
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.4664	.3757	.1488	.0091	.0000	
	THIRD	2 .0000	.1884	.4710	.2953	.0380	.0072	
	THIRD	3 .0018	.0871	.2686	.4701	.1216	.0508	
	TOTALS	.0006	.2473	.3718	.3007	.0562	.0193	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
51	REVERSED		.6927					.6468
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.4537	.4174	.0980	.0272	.0036	
	THIRD	2 .0000	.1178	.4511	.2790	.1232	.0290	
	THIRD	3 .0000	.0399	.1670	.3103	.3140	.1688	
	TOTALS	.0000	.2037	.3452	.2291	.1548	.0671	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
52	REVERSED		.7191					.7403
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1 .0000	.5318	.3975	.0599	.0109	.0000	
	THIRD	2 .0000	.1322	.5707	.2264	.0634	.0072	
	THIRD	3 .0000	.0218	.1815	.3067	.3339	.1561	
	TOTALS	.0000	.2285	.3833	.1977	.1340	.0544	

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 2--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
3	SAME		.2499	.5749				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.5227	.3884	.0762	.0073	.0054	
	THIRD 2	.0000	.4877	.1691	.0072	.0000	.0000	
	THIRD 3	.0000	.9655	.0309	.0036	.0000	.0000	
	TOTALS	.0000	.7920	.1747	.0290	.0024	.0018	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
4	SAME		.3218	.5913				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2232	.5009	.1978	.0635	.0145	
	THIRD 2	.0000	.5870	.3441	.0453	.0036	.0000	
	THIRD 3	.0000	.8094	.1742	.0091	.0054	.0018	
	TOTALS	.0000	.5399	.3464	.0840	.0242	.0054	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
5	SAME		.4507	.5212				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0724	.2905	.5626	.0799	.0349	
	THIRD 2	.0018	.1993	.3986	.3913	.0072	.0018	
	THIRD 3	.0018	.4319	.3485	.2142	.0018	.0018	
	TOTALS	.0012	.2346	.3325	.3894	.0294	.0127	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
6	SAME		.9878	.3132				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0690	.2232	.2069	.3049	.1960	
	THIRD 2	.0018	.1250	.2842	.1467	.2301	.2101	
	THIRD 3	.0000	.3358	.3140	.1143	.1198	.1162	
	TOTALS	.0006	.1765	.2745	.1560	.2183	.1741	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
7	SAME		.2614	.5699				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4464	.4120	.0907	.0181	.0127	
	THIRD 2	.0000	.8951	.1304	.0145	.0000	.0000	
	THIRD 3	.0000	.9383	.0399	.0018	.0000	.0000	
	TOTALS	.0000	.7533	.2007	.0357	.0040	.0042	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
8	SAME		.2796	.5178				
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.4474	.4102	.0980	.0181	.0149	
	THIRD 2	.0018	.4721	.3132	.0091	.0000	.0018	
	THIRD 3	.0000	.4748	.1234	.0018	.0000	.0000	
	TOTALS	.0012	.4681	.2720	.0363	.0040	.0054	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
9	SAME		.3830				.5363	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.1468	.4356	.2976	.0817	.0363	
	THIRD 2	.0000	.9388	.5308	.1196	.0072	.0036	
	THIRD 3	.0000	.5572	.3793	.0526	.0109	.0000	
	TOTALS	.0000	.3482	.4486	.1566	.0333	.0133	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
10	SAME		.9233				.6275	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2123	.4864	.2287	.0508	.0218	
	THIRD 2	.0000	.5851	.3605	.0507	.0036	.0000	
	THIRD 3	.0000	.8203	.1736	.0054	.0018	.0018	
	TOTALS	.0000	.5393	.3392	.0949	.0187	.0079	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
12	SAME		.3578				.4541	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.2287	.4610	.1325	.1470	.0290	
	THIRD 2	.0000	.4130	.4638	.0743	.0453	.0036	
	THIRD 3	.0000	.7241	.2486	.0145	.0109	.0018	
	TOTALS	.0006	.4553	.3912	.0738	.0677	.0115	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
13	SAME		.6270				.4789	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0399	.1270	.1034	.3557	.3739	
	THIRD 2	.0000	.1033	.2518	.1902	.2989	.1558	
	THIRD 3	.0000	.3521	.2813	.1252	.1416	.0998	
	TOTALS	.0000	.1651	.2201	.1397	.2654	.2098	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
14	SAME		.6212				.4586	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0073	.0690	.1397	.4610	.3230	
	THIRD 2	.0000	.0471	.2862	.2246	.3750	.0670	
	THIRD 3	.0018	.2959	.4446	.1815	.1107	.0054	
	TOTALS	.0006	.1034	.2666	.1820	.3156	.1318	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
15	SAME		.6734				.4841	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0054	.0327	.1034	.3993	.4592	
	THIRD 2	.0000	.0181	.1884	.2972	.4058	.1304	
	THIRD 3	.0018	.2269	.3775	.2087	.1943	.0309	
	TOTALS	.0006	.0434	.1993	.1896	.3198	.2068	

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS J--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
16	REVERSED		.9029					.4029
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.1180	.2999	.2432	.1942	.1452
	THIRD	2	.0000	.0634	.2047	.2011	.3043	.2264
	THIRD	3	.0000	.0399	.0543	.1434	.3031	.4574
	TOTALS	.0000	.0708	.1648	.1959	.2672	.2763	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
17	REVERSED		.6776					.4979
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.1996	.6407	.0944	.0417	.0236
	THIRD	2	.0018	.0452	.6250	.1264	.1214	.0598
	THIRD	3	.0018	.0327	.3376	.1343	.2831	.2105
	TOTALS	.0012	.0992	.5345	.1185	.1487	.0979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
19	REVERSED		.6411					.4548
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.3394	.3975	.1270	.0853	.0508
	THIRD	2	.0000	.1522	.3441	.1922	.1576	.1540
	THIRD	3	.0000	.0980	.2323	.1125	.1904	.3464
	TOTALS	.0000	.1965	.3380	.1306	.1445	.1904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
21	REVERSED		.6832					.4596
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.3285	.4791	.1234	.0563	.0127
	THIRD	2	.0018	.1123	.4457	.1649	.2246	.0507
	THIRD	3	.0000	.0708	.3321	.1180	.3339	.1452
	TOTALS	.0006	.1705	.4190	.1354	.2050	.0695	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
22	SAME		.6574					.3774
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0290	.1534	.2377	.3684	.2413
	THIRD	2	.0000	.0488	.1797	.2518	.3714	.1322
	THIRD	3	.0000	.1887	.2178	.2722	.2377	.0839
	TOTALS	.0000	.0955	.1457	.2539	.3259	.1590	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
24	REVERSED		.6262					.4139
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0036	.2087	.4156	.2214	.1689	.0417
	THIRD	2	.0000	.1787	.3251	.2101	.2645	.0410
	THIRD	3	.0000	.0963	.2160	.1434	.4083	.1740
	TOTALS	.0012	.1245	.3289	.1917	.2606	.0931	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
25	SAME		.8497				.3654
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.1071	.1633	.2868	.2432	.1996
	THIRD 2	.0000	.2120	.2174	.2554	.1848	.1304
	THIRD 3	.0018	.4211	.2341	.1724	.0889	.0817
	TOTALS	.0006	.2467	.2050	.2382	.1723	.1372

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
26	REVERSED		.4768				.3777
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.1470	.2541	.2123	.1724	.2142
	THIRD 2	.0018	.0417	.1824	.2083	.2210	.3388
	THIRD 3	.0000	.0143	.0708	.1452	.2632	.5045
	TOTALS	.0006	.0683	.1711	.1886	.2189	.3525

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
27	REVERSED		.5397				.3438
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.1688	.2722	.2414	.1760	.1416
	THIRD 2	.0000	.0743	.2391	.1902	.3243	.1721
	THIRD 3	.0000	.0309	.1234	.1706	.3902	.2849
	TOTALS	.0000	.0913	.2116	.2007	.2969	.1995

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
28	REVERSED		.4846				.2057
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.1034	.1940	.1978	.2740	.2287
	THIRD 2	.0018	.0417	.1685	.1685	.3696	.2500
	THIRD 3	.0018	.0363	.1470	.1180	.3902	.3067
	TOTALS	.0012	.0605	.1705	.1614	.3446	.2618

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
29	REVERSED		.7225				.2451
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0018	.3285	.4918	.0926	.0599	.0254
	THIRD 2	.0000	.1612	.5236	.1214	.1703	.0236
	THIRD 3	.0000	.0398	.4138	.1270	.2759	.0835
	TOTALS	.0006	.1965	.4744	.1137	.1487	.0441

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
30	REVERSED		.8323				.8882
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0006	.1342	.3793	.2087	.1597	.0944
	THIRD 2	.0000	.0398	.2373	.2156	.3297	.1976
	THIRD 3	.0000	.0084	.0780	.0726	.3321	.4918
	TOTALS	.0012	.0864	.2316	.1723	.2799	.2346

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
31	REVERSED		.6133					.6016
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2396	.4083	.2015	.1270	.0236
		THIRD 2	.0000	.0924	.2989	.2427	.2917	.0543
		THIRD 3	.0000	.0343	.1688	.1724	.4045	.2160
		TOTALS	.0000	.1227	.2920	.2122	.2751	.0979

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
32	REVERSED		.3701					.4521
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0744	.1053	.2450	.3013	.2740
		THIRD 2	.0018	.0163	.0507	.1087	.3841	.4384
		THIRD 3	.0000	.0054	.0054	.0381	.2105	.1705
		TOTALS	.0006	.0320	.0538	.1306	.2987	.4843

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
33	REVERSED		.6445					.4480
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2468	.5045	.0907	.0742	.0417
		THIRD 2	.0000	.1214	.4946	.0924	.1957	.0960
		THIRD 3	.0000	.0417	.3103	.0617	.2577	.3285
		TOTALS	.0000	.1433	.4365	.0816	.1765	.1620

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
34	REVERSED		.3374					.3980
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0398	.1670	.0398	.1270	.5044
		THIRD 2	.0000	.0308	.0743	.0743	.1359	.6846
		THIRD 3	.0000	.0073	.0200	.0218	.0708	.8802
		TOTALS	.0000	.0459	.0871	.0653	.1112	.6904

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
35	REVERSED		.9660					.3402
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2305	.2886	.1960	.1618	.1234
		THIRD 2	.0018	.0888	.2645	.1649	.3152	.1649
		THIRD 3	.0000	.0563	.1863	.1234	.3194	.3140
		TOTALS	.0006	.1292	.2467	.1614	.2654	.2007

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
36	REVERSED		.0721					.0845
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.3049	.2886	.2142	.0926	.0936
		THIRD 2	.0000	.0870	.2591	.2337	.2446	.1757
		THIRD 3	.0000	.0391	.1688	.1289	.2214	.0428
		TOTALS	.0000	.1433	.2388	.1929	.1842	.2994

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 4--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
37	SAME		.3984				.3886
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.0744	.3597	.2341	.1996	.1361
	THIRD 2	.0000	.1685	.5127	.1033	.1467	.0489
	THIRD 3	.0000	.0247	.3258	.0490	.1016	.0889
	TOTALS	.0000	.2225	.4015	.1288	.1560	.0913

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
38	REVERSED		.4582				.4409
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.1924	.3067	.1942	.1815	.1252
	THIRD 2	.0000	.0254	.1178	.1141	.4674	.2754
	THIRD 3	.0000	.0091	.0200	.0417	.2831	.1461
	TOTALS	.0000	.0756	.1481	.1167	.3108	.3469

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
39	SAME		.8089				.4872
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.0617	.2396	.2395	.2995	.0996
	THIRD 2	.0018	.1369	.4454	.2954	.1431	.0272
	THIRD 3	.0000	.3466	.4465	.0980	.0980	.0109
	TOTALS	.0006	.5117	.3829	.2177	.1802	.0459

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
40	REVERSED		.7792				.2204
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.4410	.3134	.1760	.0908	.0127
	THIRD 2	.0000	.2808	.4239	.2138	.0725	.0091
	THIRD 3	.0000	.2250	.3575	.2541	.1270	.0363
	TOTALS	.0000	.3156	.3670	.2146	.0834	.0153

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
41	SAME		.4199				.7361
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.0635	.2922	.2740	.2523	.1180
	THIRD 2	.0000	.2680	.5580	.1159	.0272	.0109
	THIRD 3	.0000	.7132	.2704	.0109	.0034	.0000
	TOTALS	.0000	.3549	.3726	.1326	.0949	.0429

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R			
42	SAME		.7215				.3986
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.0127	.0381	.2105	.3539	.2448
	THIRD 2	.0000	.0197	.0761	.3405	.3207	.1228
	THIRD 3	.0000	.0726	.2178	.3684	.2089	.1367
	TOTALS	.0000	.0491	.1140	.3132	.2936	.1247

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	REVENSED		18418					16319
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIND 1	10000	18323	13376	12686	11289	10327	
	THIND 2	10000	18362	11987	13424	14366	18761	
	THIND 3	10000	18290	10417	11307	14247	13739	
	TOTALS	10000	18392	11626	12473	13301	11608	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
45	REVENSED		18188					14677
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIND 1	10019	1887	12759	11797	12650	10889	
	THIND 2	10036	18707	11540	12283	13967	11467	
	THIND 3	10000	18163	10744	11216	14301	13575	
	TOTALS	10018	18919	11681	11765	13440	11977	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
47	REVENSED		18128					15646
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIND 1	10018	12033	11488	12323	12015	11213	
	THIND 2	10000	18380	10525	11504	13098	14493	
	THIND 3	10000	18181	10109	10472	11379	12858	
	TOTALS	10006	18465	10707	11433	12164	14825	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
49	REVENSED		16797					14217
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIND 1	10018	13309	13920	11797	10599	10327	
	THIND 2	10000	11467	12641	12754	11848	10290	
	THIND 3	10000	18542	12523	12831	12974	11107	
	TOTALS	10006	11790	13362	12461	11808	10974	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
50	SAME		16325					18980
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIND 1	10018	10161	10780	11869	14011	13140	
	THIND 2	10000	10580	12482	12808	12279	10851	
	THIND 3	10018	11033	14628	11688	11779	10254	
	TOTALS	10012	10798	12630	12122	13023	11418	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
51	SAME		18073					17080
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIND 1	10000	18309	11379	13212	13212	11887	
	THIND 2	10000	11268	14493	12880	11232	10127	
	THIND 3	10000	18547	14483	10780	10200	10000	



ITEM	WEIGHTS	PROPORTION	SCORE	PER	INDIVIDUAL	POINT MULTISERIAL R		
32	SAME				0809	7158		
	PROPORTIONAL RESPONSE	CHIT		RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	0000	0327	2015	3013	3249	1397	
	THIRD 2	0000	1250	5489	2391	0670	0199	
	THIRD 3	0000	0281	3993	0526	0163	0036	
	TOTALS	0000	2859	3833	1977	1360	0544	

ITEM	WEIGHTS	PROPORTION	SCORE	PER	INDIVIDUAL	POINT MULTISERIAL R		
33	SAME				3509	6518		
	PROPORTIONAL RESPONSE	CHIT		RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	0000	0254	1270	2486	3775	8214	
	THIRD 2	0000	0743	3877	3134	1938	0308	
	THIRD 3	0000	3412	4464	1488	0363	0073	
	TOTALS	0000	1469	3271	2370	2025	0865	

STEP 0

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 3--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
5	REVERSED		.7493				.3575	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0076	.3007	.3012	.2813	.0018	.0018
		THIRD 2	.0000	.2246	.3636	.3859	.0181	.0018
		THIRD 3	.0000	.1289	.2668	.5009	.0690	.0345
		TOTALS	.0012	.2346	.3325	.3894	.0296	.0127

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
7	REVERSED		.9386				.4027	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.9183	.0780	.0036	.0000	.0000
		THIRD 2	.0000	.8025	.1757	.0127	.0036	.0054
		THIRD 3	.0000	.5390	.3485	.0907	.0145	.0073
		TOTALS	.0000	.7533	.2067	.0357	.0060	.0042

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
10	REVERSED		.8767				.8360	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.8340	.1779	.0181	.0000	.0000
		THIRD 2	.0000	.5682	.3786	.0453	.0091	.0018
		THIRD 3	.0000	.2496	.4610	.2214	.0472	.0218
		TOTALS	.0000	.5393	.3392	.0949	.0187	.0079

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
12	REVERSED		.8422				.3381	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.6934	.2995	.0236	.0218	.0018
		THIRD 2	.0018	.4088	.4583	.0725	.0543	.0072
		THIRD 3	.0000	.3067	.4156	.1252	.1270	.0254
		TOTALS	.0006	.4353	.3912	.0738	.0477	.0115

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
14	REVERSED		.5788				.6047	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2523	.4174	.1670	.1452	.0181
		THIRD 2	.0000	.0489	.2627	.2391	.3949	.0543
		THIRD 3	.0018	.0091	.1198	.1397	.4065	.3230
		TOTALS	.0006	.1034	.2600	.1820	.3156	.1318

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
15	REVERSED		.8200				.6399	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.2127	.3684	.1960	.1897	.0345
		THIRD 2	.0000	.0126	.1797	.2649	.4054	.1268
		THIRD 3	.0018	.0054	.0544	.1089	.3702	.4372
		TOTALS	.0006	.0036	.1559	.1428	.3198	.2068

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
16	SAME		.4971					.8067
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0327	.0454	.1343	.3049	.4828
	THIRD	2	.0000	.0580	.1504	.2029	.3406	.2482
	THIRD	3	.0000	.1307	.3648	.2505	.1561	.0380
	TOTALS	.0000	.0738	.1868	.1959	.2672	.2763	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
17	SAME		.5224					.4054
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0327	.3775	.1361	.2613	.1924
	THIRD	2	.0018	.0833	.4232	.1105	.1268	.0543
	THIRD	3	.0018	.1815	.4025	.1089	.0581	.0472
	TOTALS	.0012	.0992	.5345	.1185	.1487	.0979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
19	SAME		.5589					.5900
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0472	.1506	.1125	.2269	.4229
	THIRD	2	.0000	.1413	.4022	.1739	.1612	.1214
	THIRD	3	.0000	.4011	.4211	.1053	.0454	.0272
	TOTALS	.0000	.1965	.3380	.1306	.1445	.1904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
22	REVERSED		.5420					.5101
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.2160	.2559	.2868	.1942	.0472
	THIRD	2	.0000	.0453	.1721	.2899	.3931	.0994
	THIRD	3	.0000	.0254	.0690	.1851	.3902	.3303
	TOTALS	.0000	.0955	.1457	.2539	.3259	.1590	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
25	REVERSED		.4503					.5247
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.5009	.2450	.1289	.0544	.0708
	THIRD	2	.0018	.1997	.2409	.3080	.1685	.0851
	THIRD	3	.0000	.0436	.1289	.2777	.2940	.2559
	TOTALS	.0006	.2467	.2390	.2382	.1723	.1372	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
30	SAME		.6077					.5332
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD	1	.0000	.0181	.0871	.0853	.3394	.4701
	THIRD	2	.0026	.0088	.2591	.2029	.2062	.1594
	THIRD	3	.0000	.1724	.3469	.2207	.1740	.0744

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
33	SAME		.5555				.4068	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0917	.3430	.0508	.2432	.3212	
	THIRD 2	.0000	.1431	.4801	.1033	.1775	.0960	
	THIRD 3	.0000	.2450	.4864	.0907	.1089	.0690	
	TOTALS	.0000	.1433	.4265	.0816	.1765	.1620	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
34	SAME		.8626				.4286	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0127	.0200	.0091	.0726	.8857	
	THIRD 2	.0000	.0308	.0688	.0616	.1286	.7101	
	THIRD 3	.0000	.0944	.1724	.1252	.1325	.4755	
	TOTALS	.0000	.0459	.0871	.0453	.1112	.6904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
35	SAME		.6279				.3328	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0453	.1960	.1361	.2287	.3739	
	THIRD 2	.0000	.1284	.2627	.2065	.1975	.2047	
	THIRD 3	.0000	.2359	.2877	.2341	.1325	.1397	
	TOTALS	.0000	.1433	.2388	.1923	.1862	.2394	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	SAME		.4582				.4117	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0309	.0254	.1452	.4519	.3466	
	THIRD 2	.0000	.0489	.1431	.3188	.3822	.1069	
	THIRD 3	.0000	.2178	.3194	.2777	.1561	.0290	
	TOTALS	.0000	.0592	.1626	.2473	.3301	.1608	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
45	SAME		.6819				.4327	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.0309	.0453	.1452	.4465	.3103	
	THIRD 2	.0018	.0543	.1449	.1993	.3986	.1812	
	THIRD 3	.0018	.1906	.2740	.1851	.2468	.1016	
	TOTALS	.0018	.0919	.1681	.1765	.3440	.1977	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
49	SAME		.8203				.4289	
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0563	.2595	.2922	.2940	.0980	
	THIRD 2	.0018	.1280	.3786	.2681	.1721	.0843	
	THIRD 3	.0000	.3887	.3702	.1779	.0762	.0200	
	TOTALS	.0000	.1433	.2362	.2461	.1808	.0874	

STEP	WEIGHTS	PROPORTION	BLOND	PLM	INDIVIDUAL	POINT	MULTISERIAL	R
50	REVENUED							
	PROPORTIONAL RESPONSE	CHIT		RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0018		.1361	.4156	.1851	.2142	.0472
	THIRD 2	.0018		.0670	.2663	.2717	.3080	.0851
	THIRD 3	.0000		.0363	.1071	.1797	.3848	.2922
	TOTALS	.0012		.0798	.2630	.2122	.3023	.1415

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 6--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
3	REVERSED		.9300		.6615		
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.9700	.0230	.0000	.0000	.0000
	THIRD 2	.0000	.8949	.0970	.0054	.0018	.0000
	THIRD 3	.0000	.9060	.4011	.0817	.0054	.0054
	TOTALS	.0000	.7920	.1747	.0290	.0024	.0018

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
4	REVERSED		.8782		.5966		
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.8039	.1452	.0054	.0036	.0018
	THIRD 2	.0000	.9489	.4000	.0399	.0109	.0000
	THIRD 3	.0000	.2269	.4936	.2069	.0581	.0145
	TOTALS	.0000	.5329	.3964	.0840	.0202	.0054

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
8	REVERSED		.8200		.4693		
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.8530	.1470	.0000	.0000	.0000
	THIRD 2	.0000	.6938	.3025	.0018	.0000	.0018
	THIRD 3	.0036	.4570	.3993	.1071	.0181	.0145
	TOTALS	.0012	.4681	.2830	.0363	.0060	.0054

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
9	REVERSED		.8170		.5825		
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.9608	.3648	.0635	.0109	.0000
	THIRD 2	.0000	.3094	.5452	.0670	.0145	.0030
	THIRD 3	.0000	.1300	.4156	.3394	.0744	.0363
	TOTALS	.0000	.3062	.4486	.1566	.0333	.0133

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
10	REVERSED		.8107		.4480		
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.8073	.1452	.0054	.0018	.0000
	THIRD 2	.0000	.9779	.3732	.0435	.0084	.0000
	THIRD 3	.0000	.1920	.4991	.2399	.0490	.0230
	TOTALS	.0000	.8493	.3392	.0909	.0187	.0079

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
14	REVERSED		.8788		.6616		
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	.0000	.8080	.0773	.1329	.1125	.0187
	THIRD 2	.0018	.0720	.2910	.2973	.3893	.0470
	THIRD 3	.0000	.0127	.0708	.1961	.0446	.1310
	TOTALS	.0018	.1120	.2860	.1620	.3186	.1810

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
19	REVERSED		08266	06487				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	10000	02200	03920	01742	01688	00399	
	THIRD 2	10018	00236	01739	02554	00275	01178	
	THIRD 3	10000	00018	00327	01397	03630	00428	
	TOTALS	10006	00834	01995	01898	03198	02068	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
20	REVERSED		08050	03623				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	10000	02203	03938	00417	00363	00073	
	THIRD 2	10000	02971	05181	01087	00525	00236	
	THIRD 3	10018	02250	04229	02015	01016	00472	
	TOTALS	10006	03476	04450	01173	00635	00260	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
23	REVERSED		07956	03042				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	10000	03811	05299	00490	00327	00073	
	THIRD 2	10018	02337	06123	00560	00469	00072	
	THIRD 3	10000	01760	04882	01960	01125	00272	
	TOTALS	10006	02630	05435	01137	00667	00139	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
31	SAME		08867	03231				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	10000	00744	01924	01397	03829	02109	
	THIRD 2	10000	01268	03134	02337	02772	00489	
	THIRD 3	10000	01070	03902	02632	01652	00345	
	TOTALS	10000	01227	02920	02122	02781	00979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
32	SAME		08299	04877				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	10018	00127	00073	00218	01887	07677	
	THIRD 2	10000	00305	00399	00940	03496	04837	
	THIRD 3	10000	00926	01143	02740	03575	02018	
	TOTALS	10006	00320	00528	01306	02987	04843	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
41	REVERSED		07808	07881				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	10000	07181	02977	00148	00073	00084	
	THIRD 2	10000	02790	08080	01268	00308	00084	
	THIRD 3	10000	00788	03049	02938	02468	01180	

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
44	REVERSED			•7784			•4313
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	10000	•8247	•4410	•0744	•0309	10091
	THIRD 2	10000	•8246	•5435	•1757	•0525	10026
	THIRD 3	10000	•1397	•3158	•3793	•1270	10381
	TOTALS	10000	•8430	•4401	•2098	•0701	10169

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
51	REVERSED			•6927			•7237
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	•0000	•9773	•4374	•0563	•0272	10018
	THIRD 2	•0000	•1087	•4965	•3170	•1014	10163
	THIRD 3	•0000	•0254	•1416	•3140	•3358	11833
	TOTALS	•0000	•2037	•3452	•2291	•1548	10671

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
52	REVERSED			•7191			•7150
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	10000	•5299	•4029	•0508	•0127	10036
	THIRD 2	10000	•1413	•5199	•2536	•0761	10091
	THIRD 3	10000	•0145	•2269	•2886	•3194	11906
	TOTALS	10000	•2215	•3833	•1977	•1360	10544

ITEM	WEIGHTS	PROPORTION	SCORE PER	INDIVIDUAL	POINT MULTISERIAL R		
53	REVERSED			•6491			•6656
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5
	THIRD 1	10000	•3684	•4537	•1198	•0454	10127
	THIRD 2	10000	•0943	•4094	•3315	•1703	10344
	THIRD 3	10000	•0181	•1180	•2595	•3920	12123
	TOTALS	10000	•1469	•3271	•2370	•2025	10865

SYSTEM 0



TABLE 69

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 7--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
17	SAFE		.9224					.4068
	PROPORTIONAL RESPONSE	UNIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0327	.3721	.1397	.2598	.1960	
	THIRD 2	.0018	.0779	.6266	.1105	.1268	.0562	
	THIRD 3	.0018	.1869	.6044	.1053	.0599	.0417	
	TOTALS	.0012	.0992	.5345	.1185	.1487	.0979	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
19	SAFE		.8589					.4848
	PROPORTIONAL RESPONSE	UNIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0508	.1978	.1034	.2069	.4410	
	THIRD 2	.0000	.1449	.3949	.1739	.1846	.0994	
	THIRD 3	.0000	.3938	.4211	.1143	.0399	.0309	
	TOTALS	.0000	.1965	.3380	.1306	.1445	.1904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
21	SAFE		.8168					.3712
	PROPORTIONAL RESPONSE	UNIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0018	.0726	.3430	.1143	.3267	.1416	
	THIRD 2	.0000	.1199	.5127	.1558	.1812	.0344	
	THIRD 3	.0000	.3230	.4011	.1361	.1071	.0327	
	TOTALS	.0006	.1705	.4190	.1354	.2050	.0695	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
22	REVERSED		.9426					.4940
	PROPORTIONAL RESPONSE	UNIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.2087	.2559	.2777	.2051	.0526	
	THIRD 2	.0000	.0907	.1630	.2899	.3931	.1033	
	THIRD 3	.0000	.0272	.0746	.1942	.3793	.0321	
	TOTALS	.0000	.0955	.1657	.2539	.3259	.1590	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
25	REVERSE		.6303					.5391
	PROPORTIONAL RESPONSE	UNIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.9118	.2109	.1470	.0999	.0708	
	THIRD 2	.0012	.1649	.2971	.2899	.1612	.0851	
	THIRD 3	.0000	.0435	.1071	.2777	.2958	.2559	
	TOTALS	.0006	.2467	.2090	.2362	.1723	.1372	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
30	SAFE		.6077					.5938
	PROPORTIONAL RESPONSE	UNIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0272	.0780	.0672	.3249	.0027	
	THIRD 2	.0018	.0030	.2627	.2136	.3170	.1413	
	THIRD 3	.0018	.1648	.3939	.2399	.1797	.0999	
	TOTALS	.0012	.0445	.2316	.1723	.2739	.2346	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
36	SAME		.6626	.4808				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0091	.0169	.0073	.0526	.9201	
	THIRD 2	.0000	.0290	.0670	.0471	.1413	.7186	
	THIRD 3	.0000	.0998	.1833	.1416	.1397	.4386	
	TOTALS	.0000	.0459	.0871	.0653	.1112	.6904	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
36	SAME		.6279	.3461				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0708	.1815	.1216	.2160	.4102	
	THIRD 2	.0000	.1087	.2862	.2210	.2174	.1667	
	THIRD 3	.0000	.2505	.2486	.2341	.1252	.1416	
	TOTALS	.0000	.1433	.2388	.1923	.1862	.2394	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
37 <sup>p</sup>	REVERSED		.7016	.3687				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4120	.3521	.0526	.0907	.0926	
	THIRD 2	.0000	.1812	.5091	.1014	.1685	.0399	
	THIRD 3	.0000	.0744	.3430	.2323	.2087	.1416	
	TOTALS	.0000	.2229	.4015	.1288	.1560	.0913	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
38	SAME		.7418	.5949				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0145	.0290	.0472	.2886	.6207	
	THIRD 2	.0000	.0290	.0978	.1232	.4583	.2917	
	THIRD 3	.0000	.1833	.3174	.1797	.1851	.1343	
	TOTALS	.0000	.0756	.1481	.1167	.3108	.3489	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
39 <sup>p</sup>	REVERSED		.6911	.8137				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.3466	.4761	.0962	.0780	.0091	
	THIRD 2	.0000	.1123	.4710	.2373	.1612	.0181	
	THIRD 3	.0018	.0963	.2135	.3194	.3013	.1107	
	TOTALS	.0006	.1717	.3839	.2177	.1802	.0489	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
41	REVERSED		.7808	.6961				
	PROPORTIONAL RESPONSE	CHIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.6981	.2848	.0187	.0036	.0018	
	THIRD 2	.0000	.2408	.8843	.1196	.0314	.0103	
	THIRD 3	.0000	.0489	.2795	.2686	.2468	.1162	
	TOTALS	.0000	.7849	.3736	.1336	.0949	.0429	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
43	SAME		.6382					.6154
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0309	.0417	.1434	.4319	.3521	
	THIRD 2	.0000	.0380	.1141	.3188	.4257	.1033	
	THIRD 3	.0000	.2287	.3321	.2795	.1325	.0272	
	TOTALS	.0000	.0992	.1624	.2473	.3301	.1608	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
47	SAME		.7875					.5665
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.0163	.0109	.0454	.1470	.7804	
	THIRD 2	.0000	.0380	.0453	.1504	.2862	.4801	
	THIRD 3	.0018	.2051	.1961	.2341	.2160	.1869	
	TOTALS	.0006	.0865	.0707	.1433	.2164	.4825	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
52	REVERSED		.7191					.6706
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.5009	.4211	.0563	.0163	.0054	
	THIRD 2	.0000	.1431	.5199	.2319	.0906	.0145	
	THIRD 3	.0000	.0417	.2087	.3049	.3013	.1434	
	TOTALS	.0000	.7285	.3833	.1977	.1360	.0544	

FREQUENCY DISTRIBUTION OF ITEM ANALYSIS OF THE  
SCALE FOR HYPOTHESIS 6--SECOND RUN

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL				POINT MULTISERIAL R	
37	REVERSED		.7016				.4895	
	PROPORTIONAL RESPONSE	EMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.4719	.3939	.0327	.0780	.0638
		THIRD 2	.0000	.1399	.5294	.0996	.1667	.0725
		THIRD 3	.0000	.0999	.3249	.2741	.2232	.1379
		TOTALS	.0000	.2229	.4015	.1288	.1560	.0913

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL				POINT MULTISERIAL R	
38	SAME		.7418				.6449	
	PROPORTIONAL RESPONSE	EMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0127	.0272	.0454	.2595	.6552
		THIRD 2	.0000	.0236	.0942	.1105	.4837	.2880
		THIRD 3	.0000	.1906	.3230	.1942	.1887	.1034
		TOTALS	.0000	.0756	.1481	.1167	.3108	.3489

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL				POINT MULTISERIAL R	
41	REVERSED		.7805				.7815	
	PROPORTIONAL RESPONSE	EMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.7380	.2432	.0163	.0036	.0018
		THIRD 2	.0000	.2772	.0014	.0942	.0236	.0036
		THIRD 3	.0000	.0526	.2759	.2534	.2577	.1234
		TOTALS	.0000	.3549	.3724	.1326	.0949	.0429

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL				POINT MULTISERIAL R	
42	REVERSED		.4785				.3763	
	PROPORTIONAL RESPONSE	EMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0817	.2015	.3412	.2033	.1724
		THIRD 2	.0000	.0145	.0924	.3514	.3388	.2029
		THIRD 3	.0000	.0091	.0381	.2468	.3394	.3666
		TOTALS	.0000	.0351	.1166	.3132	.2938	.2473

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL				POINT MULTISERIAL R	
44	REVERSED		.7724				.5246	
	PROPORTIONAL RESPONSE	EMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.0000	.0791	.4392	.0635	.0145	.0036
		THIRD 2	.0000	.2047	.5767	.1721	.0471	.0054
		THIRD 3	.0000	.1053	.3103	.3938	.1488	.0417
		TOTALS	.0000	.2630	.4461	.2098	.0701	.0169

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL				POINT MULTISERIAL R	
46	REVERSED		.8245				.3404	
	PROPORTIONAL RESPONSE	EMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
		THIRD 1	.3000	.9227	.0011	.0635	.0127	.0000
		THIRD 2	.5000	.2790	.5943	.1290	.0342	.0084
		THIRD 3	.7018	.2446	.4692	.2723	.0363	.0226
		TOTALS	.5036	.3499	.4716	.1493	.0284	.0097

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
48	REVERSED		.7843					.8117
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4592	.3739	.1543	.0109	.0018	
	THIRD 2	.0000	.1902	.4565	.3134	.0362	.0036	
	THIRD 3	.0014	.0926	.2849	.4465	.1216	.0526	
	TOTALS	.0006	.2473	.3718	.3047	.0562	.0193	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
51	REVERSED		.6927					.6659
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.4574	.4301	.0871	.0218	.0036	
	THIRD 2	.0000	.1141	.4511	.2644	.1232	.0272	
	THIRD 3	.0000	.0399	.1543	.3158	.3194	.1706	
	TOTALS	.0000	.2037	.3452	.2291	.1548	.0671	

ITEM	WEIGHTS	PROPORTION	SCORE PER INDIVIDUAL	POINT MULTISERIAL R				
52	REVERSED		.7191					.7650
	PROPORTIONAL RESPONSE	OMIT	RESP 1	RESP 2	RESP 3	RESP 4	RESP 5	
	THIRD 1	.0000	.5408	.3956	.0526	.0109	.0000	
	THIRD 2	.0000	.1284	.5797	.2264	.0562	.0091	
	THIRD 3	.0000	.0163	.1742	.3140	.3412	.1543	
	TOTALS	.0000	.2285	.3833	.1977	.1360	.0544	

**APPENDIX 4**

**Chi-Square Tables**

TABLE 71

## CHI SQUARE ANALYSIS FOR ITEM 6 BY GEOGRAPHIC REGION

	1	2	3	4	5	X	TOTAL
1	15.6	30.6	13.7	24.4	15.6	100	160
2	18.1	22.9	16.0	23.9	19.1	100	393
3	14.4	31.3	14.4	18.1	17.8	100	326
4	19.2	36.5	14.1	19.2	10.9	100	312
5	19.5	18.7	15.7	25.7	20.4	100	343
6	18.5	29.4	12.6	17.6	21.8	100	119

CHI SQUARE: 50.4101 DEGREES OF FREEDOM: 20 PROBABILITY: .000

1--Northwest 2--Southwest 3--Central 4--South 5--East 6--Canada

TABLE 72

## CHI SQUARE ANALYSIS FOR ITEM 11 BY GEOGRAPHIC REGION

	1	2	3	4	5	X	TOTAL
1	18.8	31.9	20.6	22.5	6.2	100	160
2	18.8	37.2	18.1	20.1	5.9	100	393
3	15.3	35.0	21.5	23.6	4.6	100	326
4	26.0	37.5	13.1	18.3	5.1	100	312
5	24.5	39.2	15.7	14.2	4.4	100	344
6	15.1	36.7	18.5	21.8	5.9	100	119

CHI SQUARE: 37.3943 DEGREES OF FREEDOM: 20 PROBABILITY: .010

TABLE 73

## CHI SQUARE ANALYSIS FOR ITEM 13 BY GEOGRAPHIC REGION

	1	2	3	4	5	X	TOTAL
1	16.2	20.0	8.7	30.0	25.0	100	160
2	12.0	19.6	13.7	28.5	26.2	100	393
3	14.7	21.5	16.3	23.3	24.2	100	326
4	19.6	21.8	13.5	28.2	17.0	100	312
5	19.8	23.5	14.5	25.0	17.2	100	344
6	19.3	30.3	15.1	24.4	10.9	100	119

CHI SQUARE: 42.0586 DEGREES OF FREEDOM: 20 PROBABILITY: .003

TABLE 74

## CHI SQUARE ANALYSIS FOR ITEM 16 BY GEOGRAPHIC REGION

	1	2	3	4	5	X	TOTAL
1	11.9	18.1	18.1	26.2	25.6	100	160
2	8.1	21.9	21.4	26.2	22.4	100	393
3	8.2	17.2	20.2	29.1	28.2	100	326
4	8.8	17.6	16.3	27.6	32.7	100	312
5	9.0	19.2	18.0	23.3	30.5	100	344
6	4.2	14.3	26.9	35.3	29.4	100	119

CHI SQUARE: 32.5246 DEGREES OF FREEDOM: 20 PROBABILITY: .038

TABLE 75

## CHI SQUARE ANALYSIS FOR ITEM 19 BY GEOGRAPHIC REGION

	1	2	3	4	5	X	TOTAL
1	18.8	37.5	15.0	14.4	14.4	100	160
2	22.6	39.2	10.2	14.0	14.0	100	393
3	19.3	33.7	12.9	11.7	22.4	100	326
4	17.3	30.8	15.4	15.4	21.2	100	312
5	20.9	29.1	12.5	16.3	21.2	100	344
6	14.3	32.8	16.0	16.0	21.0	100	119

CHI SQUARE: 30.9053 DEGREES OF FREEDOM: 20 PROBABILITY: .054

TABLE 76

## CHI SQUARE ANALYSIS FOR ITEM 28 BY GEOGRAPHIC REGION

	1	2	3	4	5	X	TOTAL
1	9.4	12.8	14.9	37.5	23.7	100	160
2	3.6	17.4	17.8	32.3	28.8	100	393
3	7.4	14.3	15.1	31.7	31.4	100	326
4	4.8	21.9	17.0	33.8	22.8	100	312
5	8.1	17.4	13.7	34.8	25.0	100	344
6	3.4	16.0	17.6	43.7	19.3	100	119

TABLE 77

## CHI SQUARE ANALYSIS FOR ITEM 30 BY GEOGRAPHIC REGION

	1	2	3	4	5	6	TOTAL
1	9.4	25.6	19.0	27.5	22.5	100	160
2	6.4	23.5	16.6	29.8	23.7	100	392
3	11.7	22.8	21.2	24.0	20.3	100	325
4	10.3	23.1	13.8	29.8	23.1	100	312
5	8.1	25.0	16.6	23.3	27.0	100	344
6	4.2	15.1	22.7	34.5	23.5	100	119

CHI SQUARE: 32.3418 DEGREES OF FREEDOM: 20 PROBABILITY: .000

1--Northwest 2--Southwest 3--Central 4--South 5--East 6--Canada

TABLE 78

## CHI SQUARE ANALYSIS FOR ITEM 31 BY GEOGRAPHIC REGION

	1	2	3	4	5	6	TOTAL
1	15.0	26.2	20.0	32.5	6.2	100	160
2	9.2	33.3	21.1	25.7	10.7	100	393
3	10.7	28.4	27.0	24.8	8.4	100	326
4	17.0	28.2	17.6	28.2	9.0	100	312
5	12.8	26.2	19.8	27.9	13.4	100	344
6	9.2	31.9	21.0	31.1	6.7	100	119

CHI SQUARE: 35.1763 DEGREES OF FREEDOM: 20 PROBABILITY: .019

TABLE 79

## CHI SQUARE ANALYSIS FOR ITEM 39 BY GEOGRAPHIC REGION

	1	2	3	4	5	6	TOTAL
1	12.5	33.7	23.7	22.5	7.5	100	160
2	15.3	38.7	23.2	19.3	3.6	100	393
3	13.5	36.9	24.9	20.0	4.6	100	325
4	19.6	42.9	19.9	13.5	4.2	100	312
5	20.3	39.5	18.3	16.0	5.8	100	344
6	24.4	32.8	21.0	20.2	1.7	100	119

CHI SQUARE: 35.2573 DEGREES OF FREEDOM: 20 PROBABILITY: .019

TABLE 80

## CHI SQUARE ANALYSIS FOR ITEM 40 BY GEOGRAPHIC REGION

	1	2	3	4	5	6	TOTAL
1	35.0	30.0	19.4	15.6	.0	100	160
2	31.6	37.9	20.4	8.1	2.0	100	393
3	24.2	39.3	28.2	4.3	4.0	100	326
4	33.7	39.1	18.3	6.7	2.2	100	312
5	33.1	36.6	20.3	9.0	.9	100	344
6	37.0	28.6	21.0	12.6	.8	100	119

CHI SQUARE: 48.9673 DEGREES OF FREEDOM: 20 PROBABILITY: .000

TABLE 81

## CHI SQUARE ANALYSIS FOR ITEM 42 BY GEOGRAPHIC REGION

	1	2	3	4	5	6	TOTAL
1	1.9	9.4	25.0	28.7	35.0	100	160
2	3.8	14.0	37.4	27.2	17.6	100	393
3	2.8	8.9	34.4	28.8	25.2	100	326
4	3.5	11.9	30.4	30.4	23.7	100	312
5	5.2	10.5	24.5	29.9	27.9	100	344
6	1.7	9.2	27.7	34.5	26.9	100	119

CHI SQUARE: 36.3544 DEGREES OF FREEDOM: 20 PROBABILITY: .004



TABLE 82

## CHI SQUARE ANALYSIS FOR ITEM 4 BY TYPE OF SCHOOL

	1	2	3	4	5	X	TOTAL
1	62.1	29.3	6.3	1.9	.5	100	430
2	53.7	35.0	8.0	2.3	1.0	100	389
3	46.3	40.2	10.0	2.9	.5	100	408
4	53.4	34.4	9.4	2.6	.2	100	427

CHI SQUARE: 21.7154 DEGREES OF FREEDOM: 12 PROBABILITY: .041

1--Large boarding 2--Small boarding 3--Large day 4--Small day

TABLE 83

## CHI SQUARE ANALYSIS FOR ITEM 5 BY TYPE OF SCHOOL

	1	2	3	4	5	X	TOTAL
1	24.9	33.5	38.8	2.3	.5	100	430
2	28.1	35.8	33.8	1.3	1.0	100	389
3	21.3	33.1	39.7	3.7	2.2	100	408
4	20.0	31.0	43.2	4.5	1.4	100	426

CHI SQUARE: 22.6853 DEGREES OF FREEDOM: 12 PROBABILITY: .031

TABLE 84

## CHI SQUARE ANALYSIS FOR ITEM 8 BY TYPE OF SCHOOL

	1	2	3	4	5	X	TOTAL
1	72.8	23.3	3.5	.5	.0	100	430
2	71.7	24.7	2.6	.3	.8	100	389
3	62.3	33.1	2.9	.7	1.0	100	408
4	60.9	32.2	3.4	.9	.5	100	425

CHI SQUARE: 24.9642 DEGREES OF FREEDOM: 12 PROBABILITY: .015

TABLE 85

## CHI SQUARE ANALYSIS FOR ITEM 9 BY TYPE OF SCHOOL

	1	2	3	4	5	X	TOTAL
1	44.7	39.3	13.0	2.6	.5	100	430
2	35.7	46.5	13.4	2.8	1.5	100	389
3	29.9	48.4	16.4	2.9	2.0	100	408
4	28.8	45.2	19.7	4.9	1.4	100	427

CHI SQUARE: 39.9342 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 86

## CHI SQUARE ANALYSIS FOR ITEM 15 BY TYPE OF SCHOOL

	1	2	3	4	5	X	TOTAL
1	10.0	23.3	19.8	30.9	16.0	100	430
2	7.2	26.0	17.5	31.6	17.7	100	389
3	9.1	17.9	14.2	32.4	22.4	100	407
4	7.0	13.1	20.4	33.0	26.5	100	427

CHI SQUARE: 38.4623 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 87

## CHI SQUARE ANALYSIS FOR ITEM 14 BY TYPE OF SCHOOL

	1	2	3	4	5	X	TOTAL
1	6.5	15.1	20.2	27.7	30.5	100	430
2	8.9	14.7	15.4	30.6	33.4	100	389
3	9.1	21.3	20.1	27.5	22.1	100	408
4	8.0	23.4	22.2	41.5	24.8	100	427

CHI SQUARE: 39.4960 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 88

## CHI SQUARE ANALYSIS FOR ITEM 17 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	10.0	48.4	12.6	17.7	11.4	100	430
2	9.0	63.8	9.4	11.4	6.2	100	387
3	9.6	51.2	13.8	16.7	11.8	100	408
4	11.0	51.5	14.3	13.6	9.6	100	427

CHI SQUARE: 30.4764 DEGREES OF FREEDOM: 12 PROBABILITY: .002

1—Large boarding 2—Small boarding 3—Large day 4—Small day

TABLE 89

## CHI SQUARE ANALYSIS FOR ITEM 19 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	17.0	30.5	14.2	14.7	23.7	100	430
2	15.4	33.2	13.4	17.0	20.8	100	389
3	22.3	38.7	11.5	14.5	13.0	100	408
4	23.7	33.0	12.9	11.9	18.5	100	427

CHI SQUARE: 32.8514 DEGREES OF FREEDOM: 12 PROBABILITY: .001

TABLE 90

## CHI SQUARE ANALYSIS FOR ITEM 20 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	38.6	43.5	3.5	6.3	2.1	100	430
2	39.1	45.8	9.0	4.6	1.5	100	389
3	33.6	42.4	12.0	8.8	2.9	100	408
4	28.2	46.2	16.2	5.4	3.8	100	427

CHI SQUARE: 32.3047 DEGREES OF FREEDOM: 12 PROBABILITY: .001

TABLE 91

## CHI SQUARE ANALYSIS FOR ITEM 23 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	27.4	58.6	9.3	3.5	1.2	100	430
2	28.3	54.5	11.1	5.7	.5	100	389
3	24.0	51.4	11.5	8.8	2.5	100	407
4	23.9	52.9	13.2	8.0	1.4	100	427

CHI SQUARE: 24.8540 DEGREES OF FREEDOM: 12 PROBABILITY: .016

TABLE 92

## CHI SQUARE ANALYSIS FOR ITEM 25 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	29.3	21.6	23.5	14.7	10.9	100	430
2	26.7	24.2	23.1	14.7	11.3	100	389
3	19.5	18.7	24.0	18.7	14.7	100	407
4	22.7	17.8	22.7	20.8	15.9	100	427

CHI SQUARE: 30.0934 DEGREES OF FREEDOM: 12 PROBABILITY: .003

TABLE 93

## CHI SQUARE ANALYSIS FOR ITEM 32 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	2.1	4.9	10.5	31.2	51.3	100	429
2	2.6	6.7	11.1	31.6	48.1	100	389
3	4.7	6.4	12.7	27.7	47.5	100	408
4	3.5	3.7	17.8	29.0	45.9	100	427

CHI SQUARE: 22.6527 DEGREES OF FREEDOM: 12 PROBABILITY: .031

TABLE 94

## CHI SQUARE ANALYSIS FOR ITEM 35 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	13.3	27.3	14.2	26.8	18.4	100	429
2	14.1	30.1	15.4	25.2	15.2	100	389
3	11.5	21.3	16.7	24.8	25.7	100	408
4	11.2	20.4	18.3	29.3	20.4	100	427

CHI SQUARE: 28.9524 DEGREES OF FREEDOM: 12 PROBABILITY: .004

1--Large boarding 2--Small boarding 3--Large day 4--Small day

TABLE 95

## CHI SQUARE ANALYSIS FOR ITEM 36 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	15.3	28.4	13.7	19.1	23.5	100	430
2	15.9	29.0	20.3	17.0	17.7	100	389
3	13.7	19.4	19.4	18.4	29.2	100	408
4	12.4	19.0	23.7	19.9	25.1	100	427

CHI SQUARE: 41.5436 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 96

## CHI SQUARE ANALYSIS FOR ITEM 40 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	36.5	32.8	15.6	10.9	1.2	100	430
2	32.1	37.5	22.9	6.2	1.3	100	389
3	29.9	39.5	21.6	6.9	2.2	100	408
4	27.6	37.2	23.0	9.1	3.0	100	427

CHI SQUARE: 23.0573 DEGREES OF FREEDOM: 12 PROBABILITY: .027

TABLE 97

## CHI SQUARE ANALYSIS FOR ITEM 42 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	4.2	15.3	27.7	30.2	22.6	100	430
2	2.3	8.5	30.1	30.3	28.4	100	389
3	4.7	13.0	32.1	26.5	23.8	100	408
4	2.8	7.3	35.4	30.4	24.1	100	427

CHI SQUARE: 30.2279 DEGREES OF FREEDOM: 12 PROBABILITY: .003

TABLE 98

## CHI SQUARE ANALYSIS FOR ITEM 43 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	7.0	13.7	23.7	37.0	18.6	100	430
2	8.0	17.2	24.4	34.7	15.7	100	389
3	13.7	13.7	23.5	33.3	15.7	100	408
4	11.0	20.4	27.2	27.2	14.3	100	427

CHI SQUARE: 30.6106 DEGREES OF FREEDOM: 12 PROBABILITY: .002

TABLE 99

## CHI SQUARE ANALYSIS FOR ITEM 44 BY TYPE OF SCHOOL

	1	2	3	4	5	Σ	TOTAL
1	29.8	47.0	17.0	5.3	.9	100	430
2	26.0	45.8	19.8	7.2	1.3	100	389
3	27.2	42.2	23.8	5.4	1.5	100	408
4	22.2	41.2	23.4	10.1	3.0	100	427

CHI SQUARE: 28.7771 DEGREES OF FREEDOM: 12 PROBABILITY: .004

TABLE 100

## CHI SQUARE ANALYSIS FOR ITEM 45 BY TYPE OF SCHOOL

	1	2	3	4	5	6	TOTAL
1	6.1	15.6	15.9	38.5	24.0	100	429
2	10.1	15.7	15.2	38.7	20.4	100	388
3	8.1	18.2	20.1	35.4	18.2	100	407
4	12.6	17.8	19.4	33.5	16.4	100	427

CHI SQUARE: 25.3249 DEGREES OF FREEDOM: 12 PROBABILITY: .013

1--Large boarding 2--Small boarding 3--Large day 4--Small day

TABLE 101

## CHI SQUARE ANALYSIS FOR ITEM 47 BY TYPE OF SCHOOL

	1	2	3	4	5	6	TOTAL
1	7.0	5.8	13.0	22.3	51.9	100	430
2	7.7	5.7	13.9	22.7	50.5	100	388
3	8.1	6.6	14.7	24.3	46.3	100	408
4	11.7	10.1	15.7	18.0	44.5	100	427

CHI SQUARE: 22.4086 DEGREES OF FREEDOM: 12 PROBABILITY: .033

TABLE 102

## CHI SQUARE ANALYSIS FOR ITEM 48 BY TYPE OF SCHOOL

	1	2	3	4	5	6	TOTAL
1	31.6	40.5	22.1	4.7	1.2	100	430
2	28.4	37.1	28.4	5.2	1.0	100	388
3	20.8	34.1	37.7	5.1	2.2	100	408
4	18.3	37.0	34.0	7.5	3.3	100	427

CHI SQUARE: 52.3978 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 103

## CHI SQUARE ANALYSIS FOR ITEM 50 BY TYPE OF SCHOOL

	1	2	3	4	5	6	TOTAL
1	12.6	25.8	18.4	29.1	11.2	100	430
2	6.2	29.4	20.1	29.4	14.7	100	388
3	7.1	25.0	21.8	31.9	14.2	100	408
4	5.9	22.1	24.6	30.8	16.7	100	426

CHI SQUARE: 31.1515 DEGREES OF FREEDOM: 12 PROBABILITY: .002

TABLE 104

## CHI SQUARE ANALYSIS FOR ITEM 51 BY TYPE OF SCHOOL

	1	2	3	4	5	6	TOTAL
1	28.4	34.7	19.1	12.1	3.7	100	430
2	21.3	34.2	24.4	13.4	6.7	100	389
3	17.9	36.8	22.1	14.2	9.1	100	408
4	13.8	30.4	26.2	22.0	7.5	100	427

CHI SQUARE: 58.5426 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 105

## CHI SQUARE ANALYSIS FOR ITEM 53 BY TYPE OF SCHOOL

	1	2	3	4	5	6	TOTAL
1	22.6	37.4	18.8	15.8	5.3	100	430
2	15.2	30.4	25.4	20.6	8.2	100	389
3	13.2	31.9	25.5	19.1	10.3	100	408
4	7.7	30.7	25.3	24.5	10.8	100	427

CHI SQUARE: 62.0879 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 106  
CHI SQUARE ANALYSIS FOR ITEM 3 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	76.4	18.9	4.3	.1	.2	100	815
2	82.3	15.9	1.4	.4	.0	100	832
CHI SQUARE: 15.2417 DEGREES OF FREEDOM: 4 PROBABILITY: .004							

1--Boys 2--Girls

TABLE 107  
CHI SQUARE ANALYSIS FOR ITEM 4 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	51.4	34.6	10.6	2.8	.6	100	815
2	56.7	34.7	6.2	1.9	.4	100	832
CHI SQUARE: 11.8474 DEGREES OF FREEDOM: 4 PROBABILITY: .019							

TABLE 108  
CHI SQUARE ANALYSIS FOR ITEM 7 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	73.0	21.1	4.7	.5	.7	100	815
2	77.8	19.1	2.4	.6	.1	100	832
CHI SQUARE: 9.6026 DEGREES OF FREEDOM: 4 PROBABILITY: .048							

TABLE 109  
CHI SQUARE ANALYSIS FOR ITEM 8 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	63.9	29.4	5.2	.7	.6	100	815
2	69.9	27.2	2.0	.5	.4	100	830
CHI SQUARE: 13.2724 DEGREES OF FREEDOM: 4 PROBABILITY: .010							

TABLE 110  
CHI SQUARE ANALYSIS FOR ITEM 10 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	48.7	37.1	11.5	2.9	.4	100	815
2	59.1	30.5	7.3	1.4	1.2	100	832
CHI SQUARE: 25.9773 DEGREES OF FREEDOM: 4 PROBABILITY: .000							

TABLE 111  
CHI SQUARE ANALYSIS FOR ITEM 11 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	16.2	35.3	21.1	21.0	6.4	100	815
2	25.2	38.5	14.1	18.3	4.0	100	832
CHI SQUARE: 35.1337 DEGREES OF FREEDOM: 4 PROBABILITY: .000							

TABLE 112  
CHI SQUARE ANALYSIS FOR ITEM 14 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	9.0	24.4	18.7	34.1	13.9	100	815
2	11.7	28.3	17.8	29.1	12.5	100	831
CHI SQUARE: 9.9817 DEGREES OF FREEDOM: 4 PROBABILITY: .041							

TABLE 113  
CHI SQUARE ANALYSIS FOR ITEM 14 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	8.2	20.6	23.2	24.3	27.6	100	815
2	6.6	16.7	18.6	28.3	27.8	100	832

TABLE 114  
CHI SQUARE ANALYSIS FOR ITEM 17 BY SEX

	1	2	3	4	5	X	TOTAL
1	10.1	57.1	11.5	12.8	8.5	100	814
2	9.6	50.2	11.9	17.1	11.2	100	831

CHI SQUARE: 12.0175      DEGREES OF FREEDOM: 4      PROBABILITY: .017

1--Boys 2--Girls

TABLE 115  
CHI SQUARE ANALYSIS FOR ITEM 19 BY SEX

	1	2	3	4	5	X	TOTAL
1	18.7	30.0	13.9	14.4	16.9	100	815
2	20.6	33.7	12.4	12.4	21.0	100	832

CHI SQUARE: 10.0547      DEGREES OF FREEDOM: 4      PROBABILITY: .039

TABLE 116  
CHI SQUARE ANALYSIS FOR ITEM 20 BY SEX

	1	2	3	4	5	X	TOTAL
1	32.7	42.5	14.4	6.4	9.7	100	814
2	36.9	46.4	9.0	6.1	1.6	100	832

CHI SQUARE: 20.5200      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 117  
CHI SQUARE ANALYSIS FOR ITEM 21 BY SEX

	1	2	3	4	5	X	TOTAL
1	14.0	38.4	15.8	23.6	7.9	100	815
2	20.2	44.9	11.3	17.6	6.0	100	831

CHI SQUARE: 28.3740      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 118  
CHI SQUARE ANALYSIS FOR ITEM 23 BY SEX

	1	2	3	4	5	X	TOTAL
1	22.1	56.0	12.9	7.2	1.8	100	815
2	30.7	53.1	9.6	5.8	.8	100	831

CHI SQUARE: 20.4445      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 119  
CHI SQUARE ANALYSIS FOR ITEM 24 BY SEX

	1	2	3	4	5	X	TOTAL
1	10.6	31.9	21.5	26.0	10.1	100	815
2	14.5	33.7	16.9	26.4	8.6	100	830

CHI SQUARE: 11.0099      DEGREES OF FREEDOM: 4      PROBABILITY: .026

TABLE 120  
CHI SQUARE ANALYSIS FOR ITEM 26 BY SEX

	1	2	3	4	5	X	TOTAL
1	9.3	19.4	20.9	21.0	29.4	100	814
2	4.4	14.8	17.1	23.0	40.7	100	832

CHI SQUARE: 38.5462      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 121  
CHI SQUARE ANALYSIS FOR ITEM 28 BY SEX

	1	2	3	4	5	X	TOTAL
1	6.0	17.8	19.4	24.2	20.9	100	815
2	8.9	16.4	13.1	23.0	31.3	100	830

CHI SQUARE: 28.9543      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 122

CHI SQUARE ANALYSIS FOR ITEM 29 BY SEX

	1	2	3	4	5	X	TOTAL
1	16.3	47.4	13.1	17.7	5.4	100	814
2	23.0	48.1	9.5	16.1	3.4	100	832

CHI SQUARE: 18.5677      DEGREES OF FREEDOM: 4      PROBABILITY: .001

1—Boys 2—Girls

TABLE 123

CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX

	1	2	3	4	5	X	TOTAL
1	10.8	29.4	17.9	24.8	17.1	100	815
2	6.4	17.1	16.6	30.1	29.8	100	830

CHI SQUARE: 69.2345      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 124

CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX

	1	2	3	4	5	X	TOTAL
1	17.5	29.3	20.0	14.8	16.3	100	815
2	11.2	18.4	18.6	20.6	31.3	100	832

CHI SQUARE: 74.2841      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 125

CHI SQUARE ANALYSIS FOR ITEM 38 BY SEX

	1	2	3	4	5	X	TOTAL
1	7.5	16.9	13.0	29.6	33.0	100	815
2	7.6	12.9	10.2	32.6	36.8	100	832

CHI SQUARE: 10.2279      DEGREES OF FREEDOM: 4      PROBABILITY: .037

TABLE 126

CHI SQUARE ANALYSIS FOR ITEM 39 BY SEX

	1	2	3	4	5	X	TOTAL
1	18.8	38.5	23.1	14.7	4.9	100	815
2	15.5	38.6	20.1	21.4	4.3	100	831

CHI SQUARE: 14.7049      DEGREES OF FREEDOM: 4      PROBABILITY: .005

TABLE 127

CHI SQUARE ANALYSIS FOR ITEM 40 BY SEX

	1	2	3	4	5	X	TOTAL
1	26.5	37.5	25.4	6.7	1.8	100	815
2	36.5	35.9	17.5	8.1	1.9	100	832

CHI SQUARE: 25.4878      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 128

CHI SQUARE ANALYSIS FOR ITEM 41 BY SEX

	1	2	3	4	5	X	TOTAL
1	30.1	39.1	13.4	11.3	4.1	100	815
2	40.9	35.8	13.3	7.5	2.5	100	832

CHI SQUARE: 33.6775      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 129

CHI SQUARE ANALYSIS FOR ITEM 44 BY SEX

	1	2	3	4	5	X	TOTAL
1	27.7	40.0	24.8	9.3	2.6	100	815
2	28.7	47.7	17.3	9.8	.7	100	832

CHI SQUARE: 32.0111      DEGREES OF FREEDOM: 4      PROBABILITY: .000

TABLE 130

## CHI SQUARE ANALYSIS FOR ITEM 45 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	8.6	18.8	19.3	36.2	17.1	100	813
2	9.9	14.8	16.0	36.8	22.5	100	831

CHI SQUARE: 13.3064 DEGREES OF FREEDOM: 4 PROBABILITY: .010

1--Boys 2--Girls

TABLE 131

## CHI SQUARE ANALYSIS FOR ITEM 46 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	31.0	46.8	17.4	3.6	1.2	100	814
2	38.9	47.6	10.8	2.0	.6	100	832

CHI SQUARE: 25.5440 DEGREES OF FREEDOM: 4 PROBABILITY: .000

TABLE 132

## CHI SQUARE ANALYSIS FOR ITEM 47 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	9.1	8.4	16.5	21.4	44.7	100	814
2	8.3	5.9	12.1	21.9	51.8	100	832

CHI SQUARE: 13.5255 DEGREES OF FREEDOM: 4 PROBABILITY: .009

TABLE 133

## CHI SQUARE ANALYSIS FOR ITEM 48 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	21.1	35.3	34.2	6.8	2.7	100	814
2	28.2	35.3	26.9	4.3	1.2	100	832

CHI SQUARE: 26.4398 DEGREES OF FREEDOM: 4 PROBABILITY: .000

TABLE 134

## CHI SQUARE ANALYSIS FOR ITEM 51 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	18.5	32.3	23.9	18.0	7.2	100	815
2	22.0	36.9	21.9	13.1	6.1	100	832

CHI SQUARE: 12.9590 DEGREES OF FREEDOM: 4 PROBABILITY: .011

TABLE 135

## CHI SQUARE ANALYSIS FOR ITEM 52 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	19.8	38.3	21.2	14.6	6.1	100	815
2	25.8	38.6	18.4	12.5	4.7	100	832

CHI SQUARE: 11.3045 DEGREES OF FREEDOM: 4 PROBABILITY: .023

TABLE 136

## CHI SQUARE ANALYSIS FOR ITEM 53 BY SEX

	1	2	3	4	5	Σ	TOTAL
1	11.9	31.9	23.2	23.8	9.2	100	815
2	17.2	33.8	24.0	16.8	8.2	100	832

CHI SQUARE: 18.8426 DEGREES OF FREEDOM: 4 PROBABILITY: .008

TABLE 137

## CHI SQUARE ANALYSIS FOR ITEM 4 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	84.9	33.3	8.9	2.3	.9	100	213
2	69.0	28.8	3.7	1.4	.8	100	216

CHI SQUARE: 9.1787 DEGREES OF FREEDOM: 4 PROBABILITY: .067



TABLE 138

## CHI SQUARE ANALYSIS FOR ITEM 10 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	49.3	35.7	11.7	9.3	.0	100	213
2	67.1	26.9	3.7	.9	1.0	100	216
CHI SQUARE: 19.0753      DEGREES OF FREEDOM: 4      PROBABILITY: .001							
1--Boys 2--Girls							

TABLE 139

## CHI SQUARE ANALYSIS FOR ITEM 14 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	7.0	28.2	16.0	37.1	11.7	100	213
2	14.4	32.4	17.1	24.5	11.6	100	216
CHI SQUARE: 11.5620      DEGREES OF FREEDOM: 4      PROBABILITY: .021							

TABLE 140

## CHI SQUARE ANALYSIS FOR ITEM 21 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	14.1	40.4	13.6	23.5	8.5	100	213
2	21.9	45.6	8.8	14.3	7.4	100	215
CHI SQUARE: 9.3747      DEGREES OF FREEDOM: 4      PROBABILITY: .052							

TABLE 141

## CHI SQUARE ANALYSIS FOR ITEM 23 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	22.1	59.2	11.7	4.7	2.3	100	213
2	32.4	58.3	6.9	2.3	.0	100	216
CHI SQUARE: 10.3699      DEGREES OF FREEDOM: 4      PROBABILITY: .035							

TABLE 142

## CHI SQUARE ANALYSIS FOR ITEM 24 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	9.4	34.7	22.1	22.1	11.7	100	213
2	12.1	33.0	15.3	32.1	7.4	100	215
CHI SQUARE: 9.4335      DEGREES OF FREEDOM: 4      PROBABILITY: .051							

TABLE 143

## CHI SQUARE ANALYSIS FOR ITEM 25 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	7.0	18.8	21.1	22.5	30.5	100	213
2	8.1	11.1	13.9	23.1	46.8	100	216
CHI SQUARE: 15.4432      DEGREES OF FREEDOM: 4      PROBABILITY: .006							

TABLE 144

## CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	13.1	32.4	13.6	24.4	16.4	100	213
2	8.6	17.1	15.7	31.0	30.6	100	216
CHI SQUARE: 27.8431      DEGREES OF FREEDOM: 4      PROBABILITY: .000							

TABLE 145

## CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	18.3	34.3	14.1	14.0	17.4	100	213
2	12.0	22.7	13.4	22.2	29.6	100	216
CHI SQUARE: 16.9242      DEGREES OF FREEDOM: 4      PROBABILITY: .008							

TABLE 146  
CHI SQUARE ANALYSIS FOR ITEM 38 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	6.1	15.0	15.5	28.2	35.2	100	213
2	5.6	11.1	6.5	29.8	43.1	100	216
CHI SQUARE:	12.0426		DEGREES OF FREEDOM: 4			PROBABILITY: .017	
	1--Boys 2--Girls						

TABLE 147  
CHI SQUARE ANALYSIS FOR ITEM 41 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	32.4	36.2	10.8	13.1	7.5	100	213
2	47.2	35.6	9.3	6.0	1.9	100	216
CHI SQUARE:	19.2455		DEGREES OF FREEDOM: 4			PROBABILITY: .001	

TABLE 148  
CHI SQUARE ANALYSIS FOR ITEM 50 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	7.5	29.6	19.2	32.4	11.3	100	213
2	17.6	28.2	17.6	25.5	11.1	100	216
CHI SQUARE:	10.6653		DEGREES OF FREEDOM: 4			PROBABILITY: .031	

TABLE 149  
CHI SQUARE ANALYSIS FOR ITEM 53 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	17.4	36.6	20.2	18.8	7.0	100	213
2	27.3	38.4	17.6	13.0	3.7	100	216
CHI SQUARE:	9.7332		DEGREES OF FREEDOM: 4			PROBABILITY: .045	

TABLE 150  
CHI SQUARE ANALYSIS FOR ITEM 11 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	15.3	32.6	27.4	20.5	6.2	100	190
2	33.3	34.8	12.6	17.2	2.0	100	198
CHI SQUARE:	25.7749		DEGREES OF FREEDOM: 4			PROBABILITY: .000	

TABLE 151  
CHI SQUARE ANALYSIS FOR ITEM 13 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	20.5	21.1	13.7	27.9	16.8	100	190
2	14.6	26.3	5.6	29.3	24.2	100	198
CHI SQUARE:	12.3824		DEGREES OF FREEDOM: 4			PROBABILITY: .015	

TABLE 152  
CHI SQUARE ANALYSIS FOR ITEM 21 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	11.1	39.5	18.4	20.5	10.5	100	190
2	25.8	41.4	12.1	15.2	5.6	100	198
CHI SQUARE:	18.4926		DEGREES OF FREEDOM: 4			PROBABILITY: .001	

TABLE 153  
CHI SQUARE ANALYSIS FOR ITEM 24 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	Σ	TOTAL
1	8.9	36.7	29.6	24.7	8.9	100	190
2	18.8	40.1	12.2	41.8	7.1	100	197

TABLE 134

## CHI SQUARE ANALYSIS FOR ITEM 26 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	8.6	20.1	21.2	21.2	29.1	100	189
2	3.0	15.7	14.1	25.8	41.4	100	198

CHI SQUARE: 13.8223 DEGREES OF FREEDOM: 4 PROBABILITY: .002

1--Boys 2--Girls

TABLE 135

## CHI SQUARE ANALYSIS FOR ITEM 28 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	7.4	20.5	18.9	38.4	14.7	100	190
2	5.6	17.8	14.2	31.5	31.0	100	197

CHI SQUARE: 14.5846 DEGREES OF FREEDOM: 4 PROBABILITY: .006

TABLE 136

## CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	11.6	35.3	13.2	25.3	14.7	100	190
2	7.6	18.7	15.7	31.3	26.8	100	198

CHI SQUARE: 19.9624 DEGREES OF FREEDOM: 4 PROBABILITY: .001

TABLE 137

## CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	20.0	34.7	20.5	14.7	10.0	100	190
2	12.1	23.2	20.2	19.2	25.3	100	198

CHI SQUARE: 22.0325 DEGREES OF FREEDOM: 4 PROBABILITY: .000

TABLE 138

## CHI SQUARE ANALYSIS FOR ITEM 41 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	28.4	40.5	12.1	12.6	6.3	100	190
2	39.4	33.8	15.2	9.1	2.5	100	198

CHI SQUARE: 9.5612 DEGREES OF FREEDOM: 4 PROBABILITY: .048

TABLE 139

## CHI SQUARE ANALYSIS FOR ITEM 17 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	10.1	58.8	7.0	12.1	12.1	100	199
2	8.3	45.1	13.2	21.4	11.8	100	200

CHI SQUARE: 13.1740 DEGREES OF FREEDOM: 4 PROBABILITY: .010

TABLE 160

## CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	8.5	26.6	18.6	24.1	20.1	100	199
2	8.4	14.7	17.6	29.9	30.4	100	200

CHI SQUARE: 10.8504 DEGREES OF FREEDOM: 4 PROBABILITY: .028

TABLE 161

## CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	18.4	24.1	19.4	14.1	20.4	100	199
2	9.3	12.3	20.6	21.1	36.8	100	200

CHI SQUARE: 27.0907 DEGREES OF FREEDOM: 4 PROBABILITY: .000

TABLE 154

## CHI SQUARE ANALYSIS FOR ITEM 24 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	8.5	20.1	21.2	21.2	29.1	100	189
2	3.0	15.7	14.1	25.8	41.4	100	198

CHI SQUARE: 13.8223 DEGREES OF FREEDOM: 4 PROBABILITY: .008

1--Boys 2--Girls

TABLE 155

## CHI SQUARE ANALYSIS FOR ITEM 28 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	7.4	20.5	18.9	38.4	14.7	100	190
2	5.6	17.8	14.2	31.5	31.0	100	197

CHI SQUARE: 14.5846 DEGREES OF FREEDOM: 4 PROBABILITY: .006

TABLE 156

## CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	11.6	35.3	13.2	25.3	14.7	100	190
2	7.6	18.7	15.7	31.3	26.8	100	198

CHI SQUARE: 19.9624 DEGREES OF FREEDOM: 4 PROBABILITY: .008

TABLE 157

## CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	20.0	34.7	20.5	14.7	10.0	100	190
2	12.1	23.2	20.2	19.2	25.3	100	198

CHI SQUARE: 22.0325 DEGREES OF FREEDOM: 4 PROBABILITY: .000

TABLE 158

## CHI SQUARE ANALYSIS FOR ITEM 41 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	3	4	5	X	TOTAL
1	28.4	40.5	12.1	12.6	4.3	100	190
2	39.4	33.8	15.2	9.1	2.5	100	198

CHI SQUARE: 9.5612 DEGREES OF FREEDOM: 4 PROBABILITY: .048

TABLE 159

## CHI SQUARE ANALYSIS FOR ITEM 17 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	10.1	58.8	7.0	12.1	12.1	100	199
2	8.3	45.1	13.2	21.6	11.8	100	200

CHI SQUARE: 13.1740 DEGREES OF FREEDOM: 4 PROBABILITY: .010

TABLE 160

## CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	8.5	26.6	18.6	26.1	20.1	100	199
2	8.4	14.7	17.6	29.9	30.4	100	200

CHI SQUARE: 10.8504 DEGREES OF FREEDOM: 4 PROBABILITY: .028

TABLE 161

## CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	18.6	26.1	14.4	16.1	20.4	100	199
2	9.3	12.3	20.6	21.1	36.8	100	200

CHI SQUARE: 27.0907 DEGREES OF FREEDOM: 4 PROBABILITY: .000

TABLE 162

## CHI SQUARE ANALYSIS FOR ITEM 40 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	23.6	39.7	26.0	7.5	2.5	100	199
2	36.3	39.2	16.7	6.4	1.5	100	204

CHI SQUARE: 9.3617 DEGREES OF FREEDOM: 4 PROBABILITY: .053

1--Boys 2--Girls

TABLE 163

## CHI SQUARE ANALYSIS FOR ITEM 48 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	19.1	27.1	44.7	6.0	3.0	100	199
2	22.5	41.2	31.4	3.4	1.5	100	204

CHI SQUARE: 11.6437 DEGREES OF FREEDOM: 4 PROBABILITY: .020

TABLE 164

## CHI SQUARE ANALYSIS FOR ITEM 51 BY SEX FOR LARGE DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	17.1	33.7	21.6	20.6	7.0	100	199
2	18.1	40.2	22.5	8.3	10.8	100	204

CHI SQUARE: 13.3848 DEGREES OF FREEDOM: 4 PROBABILITY: .010

TABLE 165

## CHI SQUARE ANALYSIS FOR ITEM 3 BY SEX FOR SMALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	73.7	20.7	5.6	.0	.0	100	213
2	83.2	15.9	.9	.0	.0	100	214

CHI SQUARE: 8.0112 DEGREES OF FREEDOM: 2 PROBABILITY: .018

TABLE 166

## CHI SQUARE ANALYSIS FOR ITEM 11 BY SEX FOR SMALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	15.5	30.5	24.4	22.5	7.0	100	213
2	21.5	41.1	13.1	20.6	3.7	100	214

CHI SQUARE: 15.0948 DEGREES OF FREEDOM: 4 PROBABILITY: .005

TABLE 167

## CHI SQUARE ANALYSIS FOR ITEM 20 BY SEX FOR SMALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	24.1	42.0	22.6	6.6	4.7	100	212
2	32.2	50.5	9.8	4.7	2.8	100	214

CHI SQUARE: 16.7553 DEGREES OF FREEDOM: 4 PROBABILITY: .002

TABLE 168

## CHI SQUARE ANALYSIS FOR ITEM 26 BY SEX FOR SMALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	11.3	20.7	21.1	21.1	25.8	100	213
2	8.1	13.6	19.6	28.3	37.4	100	214

CHI SQUARE: 13.1447 DEGREES OF FREEDOM: 4 PROBABILITY: .014

TABLE 169

## CHI SQUARE ANALYSIS FOR ITEM 29 BY SEX FOR SMALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	17.8	41.3	17.8	17.8	5.2	100	213
2	20.6	50.0	12.6	15.4	1.4	100	214

CHI SQUARE: 11.6437 DEGREES OF FREEDOM: 4 PROBABILITY: .020

TABLE 170  
CHI SQUARE ANALYSIS FOR ITEM 30 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	9.9	23.9	25.8	23.5	16.9	100	213
2	7.1	16.0	17.8	26.3	31.1	100	212
CHI SQUARE: 17.6821      DEGREES OF FREEDOM: 4      PROBABILITY: .000							

1--Boys 2--Girls

TABLE 171  
CHI SQUARE ANALYSIS FOR ITEM 36 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	13.6	22.5	26.8	20.2	16.9	100	213
2	11.2	15.4	20.6	19.6	33.2	100	214
CHI SQUARE: 16.3804      DEGREES OF FREEDOM: 4      PROBABILITY: .003							

TABLE 172  
CHI SQUARE ANALYSIS FOR ITEM 41 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	24.4	39.4	17.4	12.7	6.1	100	213
2	37.9	34.6	16.4	8.9	2.3	100	214
CHI SQUARE: 11.9564      DEGREES OF FREEDOM: 4      PROBABILITY: .018							

TABLE 173  
CHI SQUARE ANALYSIS FOR ITEM 44 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	19.2	34.7	28.2	12.2	5.6	100	213
2	25.2	47.7	18.7	7.9	.5	100	214
CHI SQUARE: 21.4227      DEGREES OF FREEDOM: 4      PROBABILITY: .000							

TABLE 174  
CHI SQUARE ANALYSIS FOR ITEM 46 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	25.4	46.9	20.2	5.6	1.9	100	213
2	37.9	48.1	9.3	3.7	.9	100	214
CHI SQUARE: 13.3194      DEGREES OF FREEDOM: 4      PROBABILITY: .010							

TABLE 175  
CHI SQUARE ANALYSIS FOR ITEM 47 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	11.3	10.8	22.1	18.3	37.6	100	213
2	12.1	9.3	9.3	17.8	51.4	100	214
CHI SQUARE: 15.9175      DEGREES OF FREEDOM: 4      PROBABILITY: .003							

TABLE 176  
CHI SQUARE ANALYSIS FOR ITEM 48 BY SEX FOR SPALL DAY SCHOOLS

	1	2	3	4	5	X	TOTAL
1	15.0	34.7	35.7	9.4	5.2	100	213
2	21.5	39.3	32.2	8.6	1.4	100	214
CHI SQUARE: 10.0528      DEGREES OF FREEDOM: 4      PROBABILITY: .040							

TABLE 177

## CHI SQUARE ANALYSIS FOR ITEM 6 BY GRADE

	1	2	3	4	5	6	TOTAL
1	15.5	20.1	20.1	24.9	19.1	100	413
2	14.1	28.1	15.3	24.7	17.8	100	405
3	20.8	32.5	13.2	17.3	15.8	100	423
4	20.1	28.3	14.0	20.9	16.7	100	407

CHI SQUARE: 36.64113 DEGREES OF FREEDOM: 12 PROBABILITY: .000

1--Freshman 2--Sophomore 3--Junior 4--Senior

TABLE 178

## CHI SQUARE ANALYSIS FOR ITEM 11 BY GRADE

	1	2	3	4	5	6	TOTAL
1	22.8	38.7	18.2	17.2	3.1	100	413
2	22.5	39.0	18.5	16.3	3.7	100	405
3	22.2	36.6	13.7	21.7	5.9	100	424
4	15.7	33.2	19.9	23.3	7.9	100	407

CHI SQUARE: 32.7947 DEGREES OF FREEDOM: 12 PROBABILITY: .001

TABLE 179

## CHI SQUARE ANALYSIS FOR ITEM 12 BY GRADE

	1	2	3	4	5	6	TOTAL
1	43.1	33.3	13.9	10.9	1.2	100	413
2	43.3	41.8	6.2	7.7	1.0	100	404
3	46.0	40.6	9.0	4.5	.9	100	424
4	49.9	40.3	4.2	4.2	1.5	100	407

CHI SQUARE: 35.6245 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 180

## CHI SQUARE ANALYSIS FOR ITEM 15 BY GRADE

	1	2	3	4	5	6	TOTAL
1	5.6	16.0	23.1	38.0	20.3	100	413
2	6.2	18.6	18.3	34.7	22.3	100	404
3	9.4	19.8	19.8	30.4	20.5	100	424
4	12.0	25.8	17.9	25.1	19.2	100	407

CHI SQUARE: 37.6773 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 181

## CHI SQUARE ANALYSIS FOR ITEM 17 BY GRADE

	1	2	3	4	5	6	TOTAL
1	10.2	55.5	12.4	13.6	8.3	100	411
2	12.8	55.1	10.9	13.6	7.7	100	405
3	10.1	51.7	12.0	14.2	12.0	100	424
4	6.1	52.6	11.5	18.4	11.3	100	407

CHI SQUARE: 21.1430 DEGREES OF FREEDOM: 12 PROBABILITY: .008

TABLE 182

## CHI SQUARE ANALYSIS FOR ITEM 18 BY GRADE

	1	2	3	4	5	6	TOTAL
1	44.8	36.8	10.7	5.6	2.2	100	413
2	56.0	30.6	8.1	3.0	2.2	100	405
3	56.7	32.4	6.9	3.8	.2	100	424
4	56.5	33.2	7.4	2.0	1.0	100	407

CHI SQUARE: 31.0199 DEGREES OF FREEDOM: 12 PROBABILITY: .002

TABLE 183

## CHI SQUARE ANALYSIS FOR ITEM 22 BY GRADE

	1	2	3	4	5	X	TOTAL
1	7.8	16.5	27.6	36.1	14.3	100	412
2	6.4	17.8	22.7	33.3	19.8	100	405
3	11.8	15.3	24.5	32.8	15.6	100	424
4	12.3	16.5	26.8	30.2	14.3	100	407

CHI SQUARE: 20.7817 DEGREES OF FREEDOM: 12 PROBABILITY: .054

1--Freshmen 2--Sophomore 3--Junior 4--Senior

TABLE 184

## CHI SQUARE ANALYSIS FOR ITEM 23 BY GRADE

	1	2	3	4	5	X	TOTAL
1	21.6	54.4	13.8	8.5	1.7	100	412
2	29.1	51.6	10.9	6.9	1.5	100	405
3	31.1	52.6	8.7	6.1	1.4	100	424
4	23.8	59.2	11.8	4.4	.7	100	407

CHI SQUARE: 23.8943 DEGREES OF FREEDOM: 12 PROBABILITY: .021

TABLE 185

## CHI SQUARE ANALYSIS FOR ITEM 25 BY GRADE

	1	2	3	4	5	X	TOTAL
1	25.4	19.6	23.0	18.2	13.8	100	412
2	22.7	20.5	23.7	18.6	14.3	100	405
3	27.8	15.6	25.2	15.3	16.0	100	424
4	22.6	24.5	23.6	17.0	10.3	100	407

CHI SQUARE: 22.9243 DEGREES OF FREEDOM: 12 PROBABILITY: .028

TABLE 186

## CHI SQUARE ANALYSIS FOR ITEM 26 BY GRADE

	1	2	3	4	5	X	TOTAL
1	7.0	18.7	22.1	20.4	31.8	100	412
2	7.2	16.3	19.5	26.4	32.6	100	405
3	7.8	17.9	17.0	16.7	40.6	100	424
4	5.4	15.5	17.2	24.6	37.3	100	407

CHI SQUARE: 25.5725 DEGREES OF FREEDOM: 12 PROBABILITY: .012

TABLE 187

## CHI SQUARE ANALYSIS FOR ITEM 28 BY GRADE

	1	2	3	4	5	X	TOTAL
1	8.1	18.9	21.6	29.9	24.5	100	412
2	6.9	17.3	15.7	36.5	23.5	100	405
3	9.9	17.3	13.2	34.8	28.8	100	423
4	6.1	14.7	14.3	37.3	27.5	100	407

CHI SQUARE: 21.0120 DEGREES OF FREEDOM: 12 PROBABILITY: .050

TABLE 188

## CHI SQUARE ANALYSIS FOR ITEM 29 BY GRADE

	1	2	3	4	5	X	TOTAL
1	21.5	49.4	9.2	16.0	3.6	100	412
2	23.0	47.2	10.4	15.3	4.2	100	405
3	19.6	49.9	11.1	14.9	4.5	100	423
4	14.5	44.2	14.5	21.6	5.2	100	407

CHI SQUARE: 24.2494 DEGREES OF FREEDOM: 12 PROBABILITY: .019



TABLE 189  
CHI SQUARE ANALYSIS FOR ITEM 30 BY GRADE

	1	2	3	4	5	X	TOTAL
1	10.9	26.0	19.2	25.2	18.7	100	412
2	8.4	22.5	18.3	22.0	22.8	100	404
3	9.7	25.0	17.2	24.7	21.5	100	424
4	5.2	19.2	14.3	30.0	31.4	100	407

CHI SQUARE: 34.5970 DEGREES OF FREEDOM: 12 PROBABILITY: .001

1--Freshmen 2--Sophomore 3--Junior 4--Senior

TABLE 190  
CHI SQUARE ANALYSIS FOR ITEM 31 BY GRADE

	1	2	3	4	5	X	TOTAL
1	11.6	32.9	19.6	27.4	8.5	100	413
2	11.1	30.4	22.5	26.7	9.4	100	405
3	17.0	24.9	18.4	26.4	11.3	100	424
4	8.6	26.4	24.6	30.0	9.8	100	407

CHI SQUARE: 23.5095 DEGREES OF FREEDOM: 12 PROBABILITY: .024

TABLE 191  
CHI SQUARE ANALYSIS FOR ITEM 32 BY GRADE

	1	2	3	4	5	X	TOTAL
1	3.6	4.3	15.0	30.8	44.3	100	413
2	2.2	6.9	14.1	28.0	46.8	100	404
3	3.5	5.7	11.3	30.2	49.3	100	424
4	3.2	2.5	10.1	30.7	53.6	100	407

CHI SQUARE: 23.0607 DEGREES OF FREEDOM: 12 PROBABILITY: .027

TABLE 192  
CHI SQUARE ANALYSIS FOR ITEM 33 BY GRADE

	1	2	3	4	5	X	TOTAL
1	13.1	42.9	10.4	18.2	15.5	100	413
2	17.5	48.6	7.9	13.6	12.3	100	405
3	17.0	41.5	8.0	17.9	15.6	100	424
4	9.6	41.5	6.1	21.1	21.6	100	407

CHI SQUARE: 37.6820 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 193  
CHI SQUARE ANALYSIS FOR ITEM 35 BY GRADE

	1	2	3	4	5	X	TOTAL
1	15.7	25.1	14.8	24.4	14.0	100	413
2	12.4	23.8	18.3	24.2	19.3	100	404
3	12.0	22.4	15.6	26.2	22.8	100	424
4	9.8	22.6	14.2	27.5	23.8	100	407

CHI SQUARE: 23.5519 DEGREES OF FREEDOM: 12 PROBABILITY: .021

TABLE 194  
CHI SQUARE ANALYSIS FOR ITEM 36 BY GRADE

	1	2	3	4	5	X	TOTAL
1	11.9	20.3	23.5	16.7	27.6	100	413
2	14.3	24.0	16.0	23.2	22.5	100	405
3	17.5	25.2	19.1	15.6	22.6	100	424
4	13.8	25.8	18.4	19.4	22.6	100	407

CHI SQUARE: 24.9005 DEGREES OF FREEDOM: 12 PROBABILITY: .015

TABLE 195

## CHI SQUARE ANALYSIS FOR ITEM 38 BY GRADE

	1	2	3	4	5	X	TOTAL
1	9.0	15.7	11.9	34.6	28.8	100	413
2	7.9	18.5	11.9	31.1	30.6	100	405
3	7.3	14.9	11.8	29.6	36.4	100	424
4	8.9	10.3	10.8	31.2	41.8	100	407

CHI SQUARE: 29.3094 DEGREES OF FREEDOM: 12 PROBABILITY: .000

1--Freshmen 2--Sophomore 3--Junior 4--Senior

TABLE 196

## CHI SQUARE ANALYSIS FOR ITEM 40 BY GRADE

	1	2	3	4	5	X	TOTAL
1	35.8	40.9	15.0	6.5	1.7	100	413
2	36.0	32.8	21.0	8.1	2.0	100	405
3	31.4	35.1	21.2	10.1	2.1	100	424
4	23.1	37.8	24.7	4.6	1.7	100	407

CHI SQUARE: 39.9743 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 197

## CHI SQUARE ANALYSIS FOR ITEM 41 BY GRADE

	1	2	3	4	5	X	TOTAL
1	30.3	38.5	18.2	8.5	4.6	100	413
2	30.9	39.0	11.6	13.6	4.9	100	405
3	35.6	38.0	13.2	4.0	5.2	100	424
4	45.5	34.2	10.3	7.6	2.5	100	407

CHI SQUARE: 44.0765 DEGREES OF FREEDOM: 12 PROBABILITY: .000

TABLE 198

## CHI SQUARE ANALYSIS FOR ITEM 42 BY GRADE

	1	2	3	4	5	X	TOTAL
1	5.1	12.3	36.1	24.7	21.8	100	413
2	2.7	10.4	33.6	25.9	24.4	100	405
3	4.5	12.0	29.2	29.0	25.2	100	424
4	1.8	9.3	26.3	35.4	27.5	100	407

CHI SQUARE: 30.3641 DEGREES OF FREEDOM: 12 PROBABILITY: .002

TABLE 199

## CHI SQUARE ANALYSIS FOR ITEM 43 BY GRADE

	1	2	3	4	5	X	TOTAL
1	10.9	19.1	27.8	29.8	13.3	100	413
2	12.1	14.0	25.7	30.6	15.6	100	405
3	11.3	14.9	21.2	35.8	16.7	100	424
4	5.4	14.7	24.3	36.6	18.9	100	407

CHI SQUARE: 28.3129 DEGREES OF FREEDOM: 12 PROBABILITY: .005

TABLE 200

## CHI SQUARE ANALYSIS FOR ITEM 47 BY GRADE

	1	2	3	4	5	X	TOTAL
1	9.0	4.9	17.5	21.4	47.3	100	412
2	10.4	9.1	14.3	21.5	44.4	100	405
3	9.9	4.0	13.0	14.4	50.7	100	424
4	8.2	6.4	12.3	25.6	50.6	100	407

CHI SQUARE: 26.2644 DEGREES OF FREEDOM: 12 PROBABILITY: .010

TABLE 201  
CHI SQUARE ANALYSIS FOR ITEM 50 BY GRADE

	1	2	3	4	5	6	TOTAL
1	9.2	29.1	26.9	24.0	9.7	100	412
2	8.7	27.5	21.0	29.0	13.9	100	406
3	7.8	24.8	18.2	31.8	17.5	100	424
4	6.1	23.8	18.9	35.4	15.7	100	407

CHI SQUARE: 32.3702 DEGREES OF FREEDOM: 12 PROBABILITY: .001

1--Freshmen 2--Sophomore 3--Junior 4--Senior

TABLE 202  
CHI SQUARE ANALYSIS FOR ITEM 51 BY GRADE

	1	2	3	4	5	6	TOTAL
1	17.7	32.0	29.3	14.8	6.3	100	413
2	18.5	35.8	22.2	14.8	6.7	100	405
3	24.1	34.4	17.7	15.3	8.5	100	424
4	20.9	36.1	22.6	15.2	5.2	100	407

CHI SQUARE: 23.0034 DEGREES OF FREEDOM: 12 PROBABILITY: .028

TABLE 203  
CHI SQUARE ANALYSIS FOR ITEM 52 BY GRADE

	1	2	3	4	5	6	TOTAL
1	21.3	36.6	24.9	12.1	5.1	100	413
2	18.0	40.7	18.3	17.5	5.4	100	405
3	25.9	35.6	21.5	11.8	5.2	100	424
4	26.0	40.8	14.3	13.0	5.9	100	407

CHI SQUARE: 30.1794 DEGREES OF FREEDOM: 12 PROBABILITY: .003

TABLE 204

## CHI SQUARE ANALYSIS FOR ITEM 64 BY GEOGRAPHIC REGION

	1	2	3	TOTAL
1	55.5	44.5	100	199
2	51.0	49.0	100	304
3	43.6	56.4	100	314
4	37.8	62.2	100	304
5	38.7	61.3	100	333
6	32.5	67.5	100	117

CHI SQUARE: 30.7484 DEGREES OF FREEDOM: 5 PROBABILITY: .000

1--Northwest 2--Southwest 3--Central 4--South 5--East 6--Canada

TABLE 205

## CHI SQUARE ANALYSIS FOR ITEM 67 BY GEOGRAPHIC REGION

	1	2	3	TOTAL
1	54.7	45.3	100	199
2	60.5	39.5	100	385
3	55.7	44.3	100	314
4	54.9	45.1	100	297
5	48.5	51.5	100	334
6	52.5	47.5	100	118

CHI SQUARE: 10.7246 DEGREES OF FREEDOM: 5 PROBABILITY: .056

TABLE 206

## CHI SQUARE ANALYSIS FOR ITEM 54 BY TYPE OF SCHOOL

	1	2	3	TOTAL
1	46.4	53.6	100	422
2	44.0	56.0	100	375
3	48.4	51.6	100	399
4	35.8	64.2	100	411

CHI SQUARE: 15.3416 DEGREES OF FREEDOM: 3 PROBABILITY: .002

1--Large boarding 2--Small boarding 3--Large day 4--Small day

TABLE 207

## CHI SQUARE ANALYSIS FOR ITEM 55 BY TYPE OF SCHOOL

	1	2	3	TOTAL
1	64.8	35.2	100	426
2	57.4	42.6	100	374
3	53.8	46.2	100	394
4	44.6	55.4	100	410

CHI SQUARE: 25.4278 DEGREES OF FREEDOM: 3 PROBABILITY: .000

TABLE 208

## CHI SQUARE ANALYSIS FOR ITEM 56 BY TYPE OF SCHOOL

	1	2	3	TOTAL
1	67.6	32.4	100	426
2	64.1	35.9	100	379
3	71.2	28.8	100	393
4	60.4	39.6	100	414

CHI SQUARE: 11.6702 DEGREES OF FREEDOM: 3 PROBABILITY: .009

TABLE 209

## CHI SQUARE ANALYSIS FOR ITEM 57 BY TYPE OF SCHOOL

	1	2	3	TOTAL
1	53.1	46.9	100	420
2	54.9	45.1	100	375
3	63.1	36.9	100	398
4	48.2	51.8	100	414

CHI SQUARE: 17.5042 DEGREES OF FREEDOM: 3 PROBABILITY: .001

TABLE 210

CHI SQUARE ANALYSIS FOR ITEM 58 BY TYPE OF SCHOOL

	1	2	X	TOTAL
1	58.8	41.2	100	482
2	57.6	42.4	100	375
3	64.1	35.9	100	398
4	46.8	53.2	100	410

CHI SQUARE: 25.9419 DEGREES OF FREEDOM: 3 PROBABILITY: .000

1--Large boarding 2--Small boarding 3--Large day 4--Small day

TABLE 211

CHI SQUARE ANALYSIS FOR ITEM 45 BY SEX

	1	2	X	TOTAL
1	59.4	40.6	100	789
2	51.1	48.9	100	810

CHI SQUARE: 11.2149 DEGREES OF FREEDOM: 1 PROBABILITY: .001

1--Boys 2--Girls

TABLE 212

CHI SQUARE ANALYSIS FOR ITEM 57 BY SEX FOR LARGE BOARDING SCHOOLS

	1	2	X	TOTAL
1	48.3	51.7	100	207
2	57.5	42.5	100	212

CHI SQUARE: 3.5880 DEGREES OF FREEDOM: 1 PROBABILITY: .058

TABLE 213

CHI SQUARE ANALYSIS FOR ITEM 55 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	X	TOTAL
1	62.6	37.4	100	182
2	52.3	47.7	100	193

CHI SQUARE: 4.0669 DEGREES OF FREEDOM: 1 PROBABILITY: .044

TABLE 214

CHI SQUARE ANALYSIS FOR ITEM 56 BY SEX FOR SMALL BOARDING SCHOOLS

	1	2	X	TOTAL
1	70.3	29.7	100	185
2	58.5	41.5	100	193

CHI SQUARE: 5.6522 DEGREES OF FREEDOM: 1 PROBABILITY: .017

TABLE 215

CHI SQUARE ANALYSIS FOR ITEM 55 BY SEX FOR SMALL DAY SCHOOLS

	1	2	X	TOTAL
1	50.0	50.0	100	202
2	39.4	60.6	100	208

CHI SQUARE: 4.6392 DEGREES OF FREEDOM: 1 PROBABILITY: .031

TABLE 216

CHI SQUARE ANALYSIS FOR ITEM 58 BY SEX FOR SMALL DAY SCHOOLS

	1	2	X	TOTAL
1	39.2	60.8	100	204
2	54.4	45.6	100	206

CHI SQUARE: 9.4522 DEGREES OF FREEDOM: 1 PROBABILITY: .002

TABLE 217

CHI SQUARE ANALYSIS FOR ITEM 56 BY GRADE

	1	2	N	TOTAL
1	71.6	28.4	100	402
2	62.1	37.9	100	396
3	65.5	34.5	100	411
4	64.2	35.8	100	399

CHI SQUARE: 8.9817      DEGREES OF FREEDOM: 3      PROBABILITY: .030

1--Freshmen    2--Sophomore    3--Junior    4--Senior

TABLE 218

CHI SQUARE ANALYSIS FOR ITEM 57 BY GRADE

	1	2	N	TOTAL
1	61.0	39.0	100	397
2	53.8	46.2	100	394
3	52.9	47.1	100	412
4	51.5	48.5	100	400

CHI SQUARE: 8.5824      DEGREES OF FREEDOM: 3      PROBABILITY: .035

TABLE 219

CHI SQUARE ANALYSIS FOR ITEM 58 BY GRADE

	1	2	N	TOTAL
1	62.9	37.1	100	399
2	54.0	46.0	100	391
3	55.4	44.6	100	410
4	54.7	45.2	100	400

CHI SQUARE: 8.3714      DEGREES OF FREEDOM: 3      PROBABILITY: .039

**APPENDIX 5**

**Problems which Most Trouble Youth**

TABLE 20

## PROBLEMS WHICH MOST TROUBLED THE YOUTH

Questionnaire Items	Number of Responses <sup>a</sup>				
	1	2	3	4	Total
<b><u>YOU AND YOUR GOD</u></b>					
3. God loves me.	4	3	4	3	14
4. God has forgiven my sins.	6	14	16	20	56
5. Jesus Christ will come during my lifetime.	34	33	39	33	139
6. Although God is love I believe He will not be able to save me if I have one known sin in my life.	41	30	40	23	134
7. Heaven is a real place.	4	10	9	4	27
8. I need to be closer to God.	41	57	64	56	218
9. I would like to learn more about how to be saved.	24	15	21	22	82
10. God hears and answers my prayers.	18	15	15	13	61
11. I often worry about God's punishment at the time of the judgment.	63	53	66	32	214
12. The Bible teaching of death as a sleep is clear to me.	17	8	5	5	35
13. Family worship is held regularly in our home.	24	39	35	36	134
14. Aside from family worship I regularly have personal devotions.	37	31	34	31	133
15. In my personal devotions I spend some time reading books by Ellen G. White	18	16	23	9	66
<b><u>YOU AND YOURSELF</u></b>					
16. It would be all right to tell a little lie in case of an emergency.	48	40	54	30	181
17. Sometimes I do what the crowd does even though I know it is wrong.	44	45	53	28	170
18. When I ask questions I would prefer having the "reasons why" rather than "Yes" and "No" answers.	25	21	27	21	94
19. It's all right to attend movies now and then in a theater if I select them carefully.	42	40	63	33	178
20. I need to develop more self-control.	45	45	51	48	189
21. I am confused sometimes about my religious beliefs.	32	33	53	41	159
22. I have chosen not to read novels.	31	27	23	20	100
23. Sometimes I feel discouraged when I fail to reach my ideals.	30	29	52	29	140
24. I am troubled with a guilty conscience even though I pray for forgiveness.	32	29	38	23	122
25. Popular dancing is wrong.	27	36	39	32	134
26. I have feelings against certain racial groups.	16	15	19	11	61
27. I have a problem determining between right and wrong music.	45	47	55	30	177
28. I feel self-conscious around non-Adventists.	16	18	22	14	70
29. I can't forget some of my mistakes in the past.	37	47	51	38	173
30. I have trouble with swearing and dirty stories.	34	35	39	18	126
31. I know I am doing something wrong but I can't change.	31	36	44	34	145
32. I am too sinful, God won't accept me.	9	17	15	12	53
33. Sometimes cheating in class is a temptation to me.	24	33	29	10	96
34. I have had some problems with drugs.	6	12	16	5	39
35. I have difficulty controlling what programs I watch on television.	33	35	35	32	135
36. Sometimes sex is a problem to me.	38	47	69	50	204

<sup>a</sup>1--Freshmen; 2--Sophomores; 3--Juniors; 4--Seniors



TABLE 270--Continued

Questionnaire Items	Number of Responses*				
	1	2	3	4	Total
<b><u>YOU AND YOUR CHURCH</u></b>					
37. I go to church because I think I should.	12	16	16	9	53
38. I go to church because my parents make me.	14	21	10	16	61
39. The doctrines of the church are clear to me and I believe them.	27	29	35	29	120
40. More sermons in the church should be more youth-centered.	26	19	16	16	76
41. I go to church because I want to.	14	11	13	7	45
42. The Missionary Volunteer Society in my church has given me and my friends the help we have needed.	12	13	25	8	58
43. The church has too many restrictions.	22	27	22	17	88
44. We as youth need more opportunities to take a direct part in church activities.	19	15	19	14	67
45. The ideas of my parents are old-fashioned.	23	24	11	14	72
46. More should be done in the church for teen-age youth.	19	20	16	22	77
47. If I had the chance I would rather go to public school for my education.	16	28	17	17	78
48. I would like to see a teen-age club organized in my church.	15	12	11	10	48
49. There is a "generation gap" between the adults and the teen-agers.	27	28	30	22	107
50. Weeks of Prayer have lasting effects.	27	22	42	31	122
51. I enjoy Weeks of Prayer for they strengthen me spiritually.	19	8	14	13	54
52. I attend Sabbath School because I really want to.	14	11	23	17	65
53. Weeks of Prayer help me with my personal problems.	21	6	20	11	58

\*1--Freshmen; 2--Sophomores; 3--Juniors; 4--Seniors

TABLE 221

## PROBLEMS WHICH MOST TROUBLED THE YOUTH

(Not for comparison or contrast)

RESPONSES BY RANK					
(a) Responses made by circling items on the Questionnaire			(b) Proportional Score per Individual by Item Analysis		
Number of Students Responding--only partial			Number of Students Responding--1,654		
Items	No. of Responses	Rank	Items	Proportional Score per Individual	Rank
8	218	1	3	.2495	1
11	214	2	7	.2614	2
36	204	3	8	.2796	3
20	189	4	4	.3218	4
16	181	5	10	.3233	5
19	178	6	18	.3328	6
27	177	7	12	.3578	7
29	173	8	46	.3755	8
17	170	9	9	.3830	9
21	159	10	20	.3950	10
31	145	11	23	.4044	11
23	140	12	41	.4195	12
5	139	13	40	.4248	13
35	135	14	44	.4276	14
6	134	15	48	.4457	15
13	134	15	5	.4507	16
25	134	15	29	.4775	17
14	133	18	52	.4809	18
30	126	19	37	.4984	19
24	122	20	11	.5031	20
50	122	20	51	.5073	21
39	120	22	39	.5089	22
49	107	23	21	.5168	23
22	100	25	49	.5203	24
33	96	25	17	.5224	25
18	94	26	25	.5497	26
43	88	27	53	.5509	27
9	82	28	33	.5555	28
47	78	29	19	.5589	29
46	77	30	50	.5675	30
40	76	31	24	.5738	31
45	72	32	31	.5867	32
28	70	33	6	.5878	33
44	67	34	14	.6212	34
15	66	35	13	.6270	35
52	65	36	36	.6279	36
10	61	37	35	.6340	37
26	61	37	22	.6574	38
38	61	37	43	.6582	39
33	58	40	27	.6603	40
42	58	40	30	.6677	41
4	56	42	15	.6734	42
51	54	43	45	.6815	43
32	53	44	16	.6971	44
37	53	44	28	.7154	45
48	48	46	42	.7215	46
41	45	47	26	.7232	47
34	39	48	38	.7418	48
12	35	49	47	.7875	49
7	27	50	32	.8299	50
3	14	51	34	.8626	51

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**Undergraduate and Graduate Schools Attended:**

Good Hope Training School, Cape Town, South Africa  
University of South Africa, Pretoria, South Africa  
Andrews University, Berrien Springs, Michigan, U.S.A.

**Degrees and Diplomas Awarded:**

Normal-Theological Certificate, Good Hope Training School,  
1939  
Bachelor of Arts, University of South Africa, 1957  
University Education Diploma, University of South Africa,  
1959  
Master of Arts, magna cum laude, Andrews University, 1962  
Doctor of Education, Andrews University, 1977

**Professional Experience in South Africa:**

1940-1945 Principal and teacher, elementary schools,  
Cape Town  
1946-1949 High School teacher, Good Hope College, Cape Town  
1951-1955 Principal and teacher, elementary and junior  
high school, Johannesburg  
1956-1960) Administrator and teacher, High School and  
1962-1974) Junior College, Good Hope College, Cape Town  
1970-1974 Director of Education, Good Hope Conference;  
Cape Town  
1977- Principal, Good Hope College, Cape Town

**Details of Experience at Good Hope Collge, Cape Town:**

1946-1949 High School teacher--all subjects  
1956-1972 (a) Director of Teacher Education; (b) High School  
teacher--history, biology, Bible  
1956-1974 Chairman, Department of Education  
1956-1965 Librarian  
1956-1964 Senior teacher (administrative)  
1958-1974 Director, Guidance and Counseling Services  
1965-1974 Vice-Principal, Academic Dean, Registrar  
1976-1977 Principal-elect

**Work Experience at Andrews University:**

- 1961-1962 Graduate assistant, Department of Teacher Education  
Food Services assistant  
Library assistant, Seminary Library
- 1974-1976 Library assistant, Seminary Library
- 1975-1977 Research associate, Hewitt Research Center  
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- 1976-1977 Graduate assistant, Department of Counseling and Guidance

**Professional Membership:**

- Association of Adventist Educators  
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