

10-1985

Development of a Screening Device for Western Conservative Baptist Seminary Using MMPI Clinical, Research and Subscales, Demographics, Sentence Completion and Seminary Attrition Scale

J. Ross Neder

Follow this and additional works at: <https://digitalcommons.georgefox.edu/psyd>



Part of the [Psychology Commons](#)

Development of a Screening Device
for Western Conservative Baptist Seminary
Using MMPI Clinical, Research and Subscales,
Demographics, Sentence Completion and
Seminary Attrition Scale

by
J. Ross Neder

Presented to the Faculty of
Western Conservative Baptist Seminary
in partial fulfillment
of the requirements for the degree
Doctor of Philosophy
in Psychology

Portland, Oregon
October, 1985

Approval

Development of a Screening Device
for Western Conservative Baptist Seminary
Using MMPI Clinical, Research and Subscales,
Demographics, Sentence Completion and
Seminary Attrition Scale

by

J. Ross Neder

Rodger K. Byford, Ph.D.
Committee Chairman

Donald K. Smith, Ph.D.
Members

Paul Spindler, Ph.D.
Date: 9/13/85

James Sweeney
Academic Dean
Date: 2/3/86

Dissertation Abstract

The purpose of this study was to develop a method by which to screen prospective students for the possibility of future adjustment difficulties with seminary life. The final goal for this information is to identify students who would benefit from extra support and guidance.

A random sample of 55 male M. Div. students from Western were given the MMPI, Sentence Completion, Seminary Attrition Scale, Demographics and a new scale developed by the author, the Seminary Socialization Scale (SSS) in the spring quarter of 1984.

The 20 question SSS correlated in the expected direction with 44 pathology measures on the MMPI and with the Seminary Attrition Scale. The measure appears to be useful in identifying students who may experience adjustment problems at seminary.

Several different norm groups were compared with the WCBS sample. In general the WCBS sample is more defensive and androgenous than general populations.

It is suggested that the predictive validity of the SSS be assessed by administering the instrument to several incoming classes while carefully monitoring these students for reported adjustment problems.

Acknowledgments

First and foremost in my acknowledgments I want to recognize God not only for His support throughout this process, but also His sovereignty in providing me the opportunity for graduate school.

Next, I would like to thank my wife for her unwavering support, encouragement, understanding and patience.

I want to thank Harvey Powers; my best friend, best man and best companion possible for this endeavor.

I also want to thank my committee members: especially my chairman, Dr. Rodger Bufford, for his encouraging and understanding countenance in offering methodological suggestions and editorial criticism; Dr. Paul Sundstrom for his gracious manner and support; and Dr. Don Smith for his spiritual guidance and insight into the religious community at large.

Finally, I would like to thank those who participated in this research project and the school for providing me access to it's students.

J. Ross Neder

TABLE OF CONTENTS

I. INTRODUCTION.....	1
A. Overview of the Introduction.....	1
B. Rationale For Investigating Seminary Failure.....	2
1. The Congregation's Perspective.....	3
2. The School's Perspective.....	4
3. From the Individual's Perspective.....	5
C. Statement of Purpose.....	7
D. Rationale for This Study.....	8
1. Basic Composition of This Study.....	10
a. Screening Device.....	11
b. MMPI.....	12
E. Review of the Literature	13
1. MMPI Usage for Screening Seminary Populations.....	13
a. Seminary versus College Differences.....	13
b. The MMPI and Seminary Drop-outs.....	13
c. MMPI and Religious Values.....	15
d. MMPI and Academic Performance.....	16
e. The Mf scale and seminarians.....	16
f. General Norms for Seminary Populations.....	19

2. Evaluation of the Literature on Screening.....	20
F. Assessing Seminarian Suitability.....	22
G. General Null Hypotheses.....	26
H. Conclusion.....	27
II. METHOD.....	30
A. Overview of the Method.....	30
B. The Subjects.....	30
C. Instruments.....	31
1. Background Inventory.....	32
2. MMPI.....	32
a. L.....	32
b. F.....	33
c. K.....	33
d. Hypochondriasis.....	33
e. Depression.....	33
f. Hysteria.....	34
g. Psychopathic deviant.....	34
h. Masculinity/Femininity....	34
i. Paranoia.....	34
j. Psychasthenia.....	35
k. Schizophrenic.....	35

1. Hypomania.....	35
m. Social introversion.....	35
3. Measures of Student Adjustment.....	36
a. The SAS Scale.....	36
b. Sentence Completion.....	37
c. Seminary Socialization Scale.....	39
D. Procedure.....	41
1. Validation Sample.....	41
a. Professor Rating.....	41
b. Student Council Rating.....	42
c. Administration.....	43
2. Random Sample.....	44
a. Data Collection Preparation.....	44
b. The Testing Sessions.....	45
c. Data Collection.....	46
E. Summary.....	48
III. RESULTS.....	49
A. Introduction.....	49

B. Data from the Validation Sample.....	50
C. Missing Data.....	51
1. Nonrespondents.....	51
2. Incomplete Responses.....	52
D. Descriptive Data for Norm Sample.....	53
1. Special Scales.....	53
a. SCS.....	54
b. SAS.....	54
c. SSS.....	54
2. Demographics.....	55
a. General background.....	55
b. Frequency of functions.....	57
c. Religious devotional life.....	58
d. Family religious life.....	60
e. Religious leadership experience.....	61
f. Importance of religion.....	62
g. Financial condition.....	63
h. Social relationship question, A.....	64
i. Social relationship question, B.....	65
j. Social relationship question, C.....	66
k. Spousal opinion questions.....	67
l. Ordinal Scale Associations.....	68
m. General MMPI Description.....	70

E. General Results.....	80
1. Hypothesis One.....	80
2. Hypothesis Two.....	83
3. Hypothesis Three.....	83
4. Hypothesis Four.....	86
5. Correlations Using the MMPI.....	90
a. SCS.....	107
b. SSS.....	107
c. SAS.....	108
d. Age.....	109
e. Personal devotions.....	109
f. SOC-B.....	109
g. Others.....	109
G. Summary.....	110
IV. DISCUSSION.....	112
A. Overview of the Discussion.....	112
B. Validation Group.....	112
C. Norm Group.....	113

1. Discussion of Problems in Data Collection....	114
2. The Defensive Posture of the Norm Sample....	115
a. Defensiveness as an Attribute.....	115
1. L scale elevation.....	116
b. Defensiveness as a Malady.....	117
1. F-K index.....	117
c. Comparison Between WCBS and DTS.....	118
3. MMPI Clinical Scales.....	118
a. Comparison with Mayo Norms.....	118
b. Comparison With the Hathaway Norms.....	119
c. Comparison With the Colligan Norms.....	120
d. Overview of the Significant Clinical Scales.....	121
4. MMPI Subscales.....	122
a. Religiosity Theme.....	122
b. Repression Theme.....	123
c. Denial of Aggression Theme.....	124
d. Optimism Theme.....	126
1. Dominance.....	127

2. Prejudice.....	127
3. Depression.....	127
4. Authority conflict.....	127
5. Denial of social anxiety.....	128
6. Social imperturbability.....	128
7. Amoralilty.....	128
8. Suspicion and mistrust.....	128
e. Energetic Theme.....	129
f. Unclassifiable Results.....	129
g. Synthesis of Subscale Results.....	131
h. Positive projection.....	132
5. SAS.....	134
6. SSS.....	134
7. Significant Demographic Variables.....	135
a. Age.....	135
b. Social Relationship Questions.....	136
c. GPA, Credits, and Duration of Devotions...	137
8. Theological Implications.....	139
a. Defensiveness and Religion.....	139
b. Duration of devotions.....	140
D. Summary.....	140
References.....	142

APPENDICES

Appendix A	Demographic Questionnaire.....	149
Appendix B	Questions Comprising SAS and their Chi-Square values.....	151
Appendix C	Scoring the SCS and Sample of SCS....	155
Appendix D	Questions and Sub-groups Comprising the SSS.....	161
Appendix E	General Announcement to Students.....	163
Appendix F	Copy of Standardized Instructions....	165
Appendix G	Raw Data.....	166
Appendix H	Vitae.....	178

L I S T O F F I G U R E S

<u>Figure 1.</u>	Frequency of Attending Church Functions..	57
<u>Figure 2.</u>	Frequency of Personal Devotions.....	58
<u>Figure 3.</u>	Average Duration of Personal Devotions...	59
<u>Figure 4.</u>	Frequency of Family Devotions	60
<u>Figure 5.</u>	Average Duration of Family Devotions	61
<u>Figure 6.</u>	Importance of Religion.....	62
<u>Figure 7.</u>	Financial Condition.....	63
<u>Figure 8.</u>	Social relationship question, A.....	64
<u>Figure 9.</u>	Social relationship questions, B.....	65
<u>Figure 10.</u>	Social relationship questions, C.....	66
<u>Figure 11.</u>	Wife's Perceived Attitude About Seminary.	67
<u>Figure 12.</u>	Wife's Perceived Attitude About Career...	68
<u>Figure 13.</u>	Mean MMPI Profile for Norm Sample.....	77
<u>Figure 14.</u>	Mean MMPI Subscale Profile for Norm Sample.....	78-79

L I S T O F T A B L E S

Table

1. Significant Correlations Between the Adjusted and the Maladjusted Groups From all 104 Variables of the Demographics, Special and MMPI Sections, and their Corresponding T Values.....	50
2. Descriptive Statistics for the Special Scales.....	53
3. Descriptive Statistics for the Demographics.....	56
4. Significant Tau-c Associations Among the Ordinal Variables.....	70
5. Descriptive Statistics for the MMPI Clinical Scales.....	71
6. Descriptive Statistics for the MMPI Sub-scales..	72-76
7. Significant T Scores of the MMPI Using Different Norm Groups.....	82
8. Significant T-Test Differences Between Class Levels.....	86
9. Significant Subscales Which Differ From the General Population Norms.....	88-90
10. Master Correlation Table.....	91-106

CHAPTER 1

INTRODUCTION

Many of us have experienced or at least have seen the tragedy involved with finding one's self situated in a semi-permanent circumstance which is basically anathema to our personalities. The feeling is that of being trapped. It seems this unfortunate experience is especially frequent in religious circles and even more profound and damaging when found in the professional religious ministries.

Overview of the Introduction

Religious people are often subtly urged to consider the "ministry" as the ultimate in dedication and service for God. This phenomena is seen both across denominations and across different faiths. Sadly, many give in to this pressure and begin preparation for ministry even though ill suited to the role. The objective of this study is to investigate the variables which can predict nonacademic adjustment to seminary based on a randomly drawn sample from a conservative evangelical seminary.

This introduction is divided into seven major sections, the first is the rationale for investigating failure in seminary. The second is a statement of purpose. The third is a rationale for this study. The fourth section is a review of the relevant literature. The fifth section is a summary on assessing seminarian suitability. The sixth section presents the general null hypothesis for the study. And the last section is a conclusion for the introduction.

Rationale For Investigating Seminary Failure

It is often found in religious circles that those who "burn out" in Christian service are labeled "casualties". All sorts of reasons, both appropriate and not so appropriate, are suggested for their generally untimely demise. Often seminarians, pastors and missionaries, the very "front line" of Christian service, are the most visible persons experiencing this. Considering the type of work, the typical financial and social remuneration, and the various negative stigmas associated with these professions, one is not surprised to find a fairly high failure rate. Yet, even so the stigma of failure is still readily applied to them by the religious community. There are

several different areas which are affected by maladjusted seminarians. We will examine the effects of failure from the congregation and Church's perspective, the school's perspective and the individual's perspective.

The Congregation's Perspective

From the congregation's perspective, the negative effects of ministerial inappropriateness or burn-out are analogous to a multi-edged sword. Not only is the experience devastating for the individual, but the local church also seems to suffer from a plethora of negative feelings about why their pastor/missionary either "quit serving God", or became "greedy" for the financial benefits of the secular world. From an even broader perspective, the harm is not limited to just the individual and the local congregation but also involves the whole of Christianity in general. One of Christianity's main appeals is the genuine offer of peace and support--the very two commodities clearly difficult to verify when the system obviously fails to work.

The School's Perspective

In addition to the rationale offered above concerning the individual and the congregation, there are several other reasons for investigating ministerial appropriateness related to the schools which train them. Seminaries are typically supported by the denominations they represent. In the mid-eighties economy, education already suffers financially and seminaries cannot afford to graduate either those who do not use their education or those who promote the perception that the school did not prepare its students well. It takes very few poor graduates of a school to ruin it's reputation, and since in denominational seminaries this reputation is what sustains enrollment, it is clear that identifying people with potential problems is a useful endeavor. Another benefit for the school is minimizing the likelihood of having to face the difficult job of expelling an academically well qualified student for the very personal problems which this study is designed investigate.

A concern from the school's perspective is the question of the effect of lowering within group variance. By screening potential students who are unlikely to adapt to seminary well, one could expect to

create a more homogeneous population of seminarians. Classes would be comprised of similar individuals in ability and possibly commitment and interest. Theoretically a better quality student could graduate since a more common ground exists for interaction and learning. Professors would not be bothered by slow learners or the myriad of personal problems that hinder their students from learning what is taught by them. Obviously, this "benefit" may also lead to an ingrown, idealistic, "clubby" atmosphere among those few select who fit the mold required for admission. It may also narrow the range of questions and differences in perspective.

Keeping people out of the ministry is not within current religious dictums and it is clearly not the final goal for this research. Nonetheless, the possibility of misuse exists. Ideally, identifying applicants who may experience difficulty at seminary and supporting them is in keeping with the ultimate purpose of this study.

From the Individual's Perspective

The last area of concern is for the students themselves. Often individuals hear what is interpreted by both themselves and their local support system as

"God's call" for them to leave their present situation and go off to seminary. Many times this is done with fanfare and jubilation by the church and their friends since religious commitment and service are highly valued traits. Unfortunately, there are individuals who arrive at seminary and find by the second quarter that they are not adjusting well. At this point it is very difficult to go back as a failure but also very difficult to stay.

For a dedicated Christian it is exceedingly hard to fail at the very thing one feels would please his Lord. This feeling may be compounded by the fear of rejection which oftentimes is perceived to emanate from the support network which supported and encouraged the individual in the first place.

It seems that for many the most difficult aspect of seminary failure is to regroup and move on to other areas of Christian service or even into areas which the individual is talented outside of the formal "ministry". Finally, there is a good deal of stigma attached to a person who "abandons" the ministry for secular work. Often the individual must live with long-term tension and the questioning by friends and acquaintances concerning why they left.

Statement of Purpose

It would be possible to alleviate much of this heartache if a procedure could be found for detecting and supporting individuals who may be the ones to drop out while here at seminary.

For these reasons Western Conservative Baptist Seminary (WCBS) is interested in developing a short, reliable and accurate method by which to screen future students who would potentially be maladjusted to seminary life. This screening device is not intended to eliminate or discourage their future ministries, but to enable the school to be able to give them the additional guidance and attention necessary to increase their chance of success both while they are in school and potentially afterward.

This is not a new idea; in fact seminaries have long used various tests to screen applicants. Menges and Dittes (1965) in their book entitled, Psychological Studies of Clergymen: Abstracts of Research, cited approximately 700 studies centering on ministerial personality, norms, and relational aspects as compared with the general public. The most common tests used are the Minnesota Multiphasic Personality Inventory

(MMPI) and the Theological School Inventory (TSI). A good body of literature exists for both; unfortunately much of it is contradictory and inconclusive. This school is interested in forming a single composite instrument from several different instruments. Specifically, this study will address itself to finding which scales, questions or combination of the two, will accurately predict students who will experience adjustment problems while here at WCBS.

Rationale for This Study

It is apparent that having the ability to identify students with potential adjustment problems would be a boon for seminary life as a whole. Typically, the studies published in the past have used either single instruments and or single scales, or compared several instruments in predicting objective criteria such as Grade Point Average (GPA) or completion of school. There are a few studies which use a more subjective criteria such as "success" in ministry, but not without either major procedural problems or questions about what is considered "success". Clearly the latter presents methodological problems for both generalizing and even validity since there is no standard definition

of ministerial success. The former, though well studied, has generally proven to be of little actual use since academic success does not reflect the various intangible qualities of successful seminarians, pastors or missionaries. Further, these objective measures cannot discriminate the multitude of reasons behind maintaining either high or low GPA or the completion/noncompletion of school. For instance, high achievers may get high grades but be unable to relate to people effectively. Similarly, the best pastoral students in the school may drop out for financial reasons. Stern (1954) eloquently addresses this issue:

We have, for the most part, emphasized intellectual capacity as a prognostic of academic success, and academic achievement as the precursor of professional competence. The shortcomings of this approach are evident, however, each time we are forced to judge for ourselves the true competence of the student. Few faculty members have escaped the experience of being called upon for recommendations about students whose academic performance is more than satisfactory, but whose suitability for the professional career in question seems dubious. And we are often quite

confident about the future success of some students whose grades are embarrassingly poor (p.76).

Basic Composition of This Study

This study is a combination of the subjective criteria, such as Stern's criteria of success and the objective criteria, such as GPA and finishing school. It is the first in a series of studies designed to distinguish the variables which will predict adjustment in seminary. Since this study is the first in the series, it is designed to sample the field of variables and to compare them across class levels and across various standardized and unstandardized instruments. Future studies will investigate the predictive validity of the variables selected and the actual predictive power measured over time. The composition of the test packet administered consisted of items 1-9. Items 6-9 are analyzed in Powers (1985) and Mueller (1985):

1. A Sentence Completion Scale (SCS), designed to check maladaptivity.
2. A sub-test of the MMPI designed to check persistence in seminary called the Seminary Attrition Scale (SAS).

3. A more subjective series of both self reported and professor/peer reported questions called the Seminary Socialization Scale (SSS).
4. The 566 question version of the MMPI.
5. An 18 item demographic questionnaire.
6. The 20 item version of the Spiritual Maturity Scale, (SM).
7. The Spiritual Well Being Scale, (SWB).
8. The Religious Orientation Scale, (ROS).
9. The Tennessee Self Concept Scale, (TSC).

Screening Device

The overall screening device to be developed is divided into three parts. This study will concentrate on the MMPI, SAS, SCS, SSS and the demographics to distinguish adjusted and maladjusted students. Mueller (1985) study will concentrate on the several spiritual scales, specifically the SWB, SM and the ROS. Powers (1985) investigated the TSCS along with the SAS, SSS, SCS and the demographics. All three studies will use the same sample, drawn and tested at the same time. The final product will employ a cluster analysis of all the scales in an effort to divide the sample into groups ranging from well adjusted to poorly adjusted

for seminary life. Next, the most predictive questions or scales will be employed for several years to collect the data necessary to verify the scale's predictive power. Future studies will also test the validity and reliability of the instrument with longitudinal data.

MMPI

The literature provides little support for using the instrument for predicting success/failure in seminary. The details are covered in the literature review but generally all the studies done used either GPA or persistence in seminary as criteria for success. The MMPI has not been very effective in predicting these criteria. This study will incorporate both objective and subjective methods of evaluating seminary adjustment.

The last reason for this study is simply comparative. There have been no studies done on this population of Conservative Baptist seminary students for norms on the MMPI or the other scales administered. Further, there are very few studies that use the MMPI in religiously oriented populations that are truly conservative evangelicals.

Review of the Literature

This section is divided into two major parts. The first is a review of the past findings on the use of the MMPI on seminary populations. This section also presents differences to expect between seminarians and other general populations. The second part is an evaluation of the literature on screening.

MMPI Usage for Screening Seminary Populations

There is no shortage of literature in the area of MMPI research on seminary populations. However, most has been done in mainline seminaries (Corville, 1964, Ingram, 1963); to date few studies have been done with conservative evangelicals.

Seminary versus College Differences

Fehr (cited in Menges and Dittes, 1965) using matched seminary and college students found that the only significant difference between the groups was that the seminarians were higher on the 4 (Pd) scale, a measure of hostility. Strunk (1959) found an elevation on 5 (Mf, a measure of sex role adherence) was a distinct attribute of seminarians.

The MMPI and Seminary Drop-outs

A ten year study conducted by Sweeney (1964) on seminarians at Loyola found that dropouts from seminary

were higher on the 8 (Sc) a measure of thought disturbance, 7 (Pt) a measure of perfectionism and 4 (Pd) scales. Hispanicus (cited in Menges and Dittes, 1965) using 50 seminarians also found that the 4 (Pd), 7 (Pt) and the 8 (Sc) scales discriminated dropouts. Godfrey (1955) found that only a high 9 (Ma) scale (a measure of energy) could predict drop-outs. Weisgerber (cited in Menges and Dittes, 1965) found that a profile of a high 5 (Mf) and 9 (Ma) and to a lesser extent 4 (Pd) would successfully screen dropouts. Steere (1970) found that the dropouts from Southern Baptist Seminary scored significantly higher on 4 (D) and 0 (Si, a measure of social introversion/extroversion) and significantly lower on 6 (Pa, a measure of paranoid thought) and contrary to Godfrey, 9 (Ma).

In a study done at Southern California School of Theology with 234 of their students, Fielder (1964) found that the 8 (Sc) scale was higher for the dropouts than for the persisters.

In summary, the scales 8 (Sc), 7 (Pt), 4 (Pd), 5 (Mf), 9 (Ma), 2 (D, a measure of depression) and 0 (Si) seem to predict drop-outs if high, and the scales 6 (Pa) and 9 (Ma) if lower. Clearly, contradictory results are cited for the 9 (Ma) scale. The combined

results of the studies cited indicate that all but two clinical scales differentiate drop-outs from persisters in at least one study. However, consistency among the findings is so low that they are not especially helpful for predicting seminary withdrawal.

MMPI and Religious Values

An important question to consider is the effect of religious values themselves on the MMPI. Vaughan (1965) compared 162 Catholics and 103 Protestants and found that the 2 (D) scale was lower for those who attended more frequently. Vaughan (1968) found that as students progress in seminary training their scores on the 7 (Pt) scale increase. Also, as a general rule seminarians have elevated scores on the 5 (Mf) scale. Pino (1980) found in review of diocesan seminarians that the norm had T scores in the 51-67 range on 5 (Mf), 7 (Pt) and 8 (Sc). Corville (1964) found the same but included the 4 (Pd) scale. Cardwell (1967) successfully replicated the findings of Fielder (1964) on the norms for evangelical seminaries and found that of the clinical scales K, (a measure of subtle defensiveness), 3 (Hy, a measure of hysterical tendencies), 4 (Pd), 6 (Pa), 7 (Pt), 8 (Sc) and 9 (Ma) were over a half a standard deviation above the general

population means and one and a half above on 5 (Mf). Clearly seminarians do differ from the general population as measured by the MMPI, especially on the 5 (Mf) scale.

MMPI and Academic Performance

In 1948, Bier found that when he matched and compared 208 medical, 55 law, 121 dental, 369 college students with 171 Catholic seminarians, that the seminarians were clearly the most deviant population. He also found that the seminarians differed among themselves making the MMPI a useful discriminator. A study done at Duke in 1963 by Ingram found that the 4 (Pd) scale was negatively correlated with academic performance. Cardwell (1967), using seminary students from Christian Theological Seminary, was able to predict GPA in a crossvalidation sample using the 5 (Mf), Es (a measure of ego strength) and Sc scales. As a whole, however, the MMPI is not a good predictor of academic success.

The Mf scale and seminarians

Another question to consider is the apparent routine elevation of the Mf scale among seminarians. Normally an elevated score on scale 5 (Mf) for a male is indicative of departure from the culturally

prescribed masculine role. It is also indicative of passivity. Cardwell (1967) deals at length with this issue and reports that this finding is not indicative of a sex role identification problem but is that of altruism and sensitivity. This is supported by Webb and McNamara (found in Newmark, 1979). They report that an elevation on 5 (Mf) is to be expected with educated men or those with aesthetic interests. Davis (1967), on the other hand, finds that when the high 5 (Mf) is combined with a high 3 (Hy), also typical of the seminarian, the person is often self-seeking and dependent.

Vaughan (1966) replicated an earlier study by Kennedy (1962) on gifted high-school students, although Vaughn used gifted college students. Kennedy found that his subjects were high on 5 (Mf), 7 (Pt) and 8 (Sc). Vaughan found identical results for the males in his sample. A synthesis of the above indicates that a high 5 (Mf) may simply be a manifestation of the fact that educated people are more inclined toward literary and artistic pursuits and less inclined toward traditional masculine pursuits. According to Newmark (1979) a high 5 (Mf) in educated males means they are imaginative, introspective, idealistic, sensitive to

interpersonal needs and are quite socially perceptive in comparison with those having more mid-range scores.

Since seminary is a graduate school, having a high 5 (Mf) is to be expected. In light of these findings it is important to expect seminarians to score differently from the general population, not merely because they are religious but because they are more educated. Another important aspect of a high 5 (Mf) has been indirectly researched by Welch and Barrish (1982). Using factor analysis they found seven motivational types of people who serve as pastors, only two of which do it successfully. The seven types are the Humble Servants, Self-Improvers, Family Guidance Seekers, Moralists, Intellectuals, Socially Oriented Servants (SOS) and the God-Seekers. These last two are especially significant. The SOS type is described as an individual whose actions are motivated by the psychological theme of, "sharing one's faith with others, serving others . . . and sharing one's goods with others." It is interesting that the description for a high Mf and the one for a SOS is analogous to that of cause and effect. They are naturally inclined toward their fellow man and are likely to produce the skills necessary for a successful ministry.

General Norms for Seminary Populations

The question of seminary norms on measures other than the MMPI has also been well researched. Childers and White (1966) found that among the three basic religious occupational groups of missionaries, pastors and religious teachers, there were no significant differences on Cattell's 16 PF. Since statistically there were no differences among them, these three groups were combined and then compared with a norm sample from the general population. Four areas were found significantly different between the two groups. The religious subjects were more persistent and conscientious (factor G). They also reflected a stronger superego or character. Factor Q3 was high indicating high morals and adherence to socially approved behavior. Factor I was also high showing sensitivity, gentility and dependency. Finally, factor F was low indicating a tendency toward seriousness, introspection and desurgency.

Maehr and Stake (1962) studied 100 students at Concordia for three years. This longitudinal study then compared 71 who withdrew for the expressed reason of changing vocation with the 100 who successfully

completed the program. The groups did not differ in academic ability as measured by both linguistic and quantitative scales. Interestingly, however, significant differences did exist in the area of values. The aesthetic scale distinguished the persisters from the nonpersisters, the persisters scoring lower. Maehr and Stake (1962) also found through comparisons between the seminary and college students who persisted that the seminary people were more religiously and socially oriented and less politically and economically minded.

Evaluation of the Literature on Screening

Viewing the above studies as a whole clearly reveals that the various scales of the MMPI can differentiate dropouts from persisters, or even the academically successful from those who are not. The problem is that there is little consistency across studies and populations. It seems that for single scale predictors the 2 (D), 9 (Ma) and 4 (Pd) are most significant. Whereas for multiple scale predictors a combination of 8 (Sc), 7 (Pt), and 4 (Pd) was the most accurate. The most important aspect of all of the above material is that the literature is not clear on what MMPI scales will consistently predict those who

will have trouble in seminary. Several studies, however, show impressive results. Aloyse (1961), found that over a six year period they could successfully screen 93% of the seminary applicants using just 14 items from the depression scale of the MMPI. Trachsel (1973) developed a 54 item scale from the MMPI which differentiated 92.3% of the time, 70% on cross validation.

The element which ties all of the above studies together is the choice of criterion for judging success. Nearly every study used either a high GPA or completion of seminary curriculum to operationalize success. GPA alone cannot discriminate adjustment to seminary life since the most asocial of people can obtain very good grades.

In summary, the results indicate a need for further research regarding what variables contribute to seminary maladjustment. Since much of the literature is inconsistent and raises doubts about using GPA as a criterion, following the same course of action is not prudent.

Assessing Seminarian Suitability

Since it is clear that seminarians do differ from the general population with the possible exception of the highly educated, it is essential to develop a valid criterion for judging their success in school based on selective, locally important criteria.

It seems best to first describe what the typical successful seminarian looks like demographically and personally. Welch and Barrish (1982) were able to separate out seven motivational types. The two who were best suited for a successful ministry by their criteria were the God-Seekers and the Socially Oriented Servants (SOS). The SOS type has been covered and is better described as a high Mf. The God-Seekers are those who actively seek to confront or experience the presence of a "divinity-figure." These two motivational types were the only two which were significantly correlated with intrinsic religiosity as measured by Hoge's scale, (cited in Welch and Barrish, 1982). Further, they were the only two groups significantly correlated with both church attendance and DeJong's et al. religious experience scale, (cited in Welch and Barrish, 1982). On the basis of the above evidence, aspects of the successful seminarian are that

they are intrinsically motivated, desire to experience God and are servants of their fellow man.

Stern (1954) worked primarily to establish face valid questions probing the areas of interpersonal relations, energy level and goal orientation. Stern felt these areas comprised the basic traits of a successful seminarian. His work was developed in conjunction with seminary faculty and was later empirically tested using IQ measures, Rorschach, TAT, sentence completion and figure drawings. It was reported to be 100% accurate even though the sample size was only six students. Stern (1954) observes that, "The complete replication of the faculty's judgments by the assessors is statistically significant, ($p=.05$), despite the small number of cases," (p.79).

It is obvious that research methodology has changed in the intervening 30 years since Stern published these rather optimistic remarks. Nonetheless, his efforts are worthy of consideration. His assessment procedure is completely devoid of academic and intellectual acuity measures. This in and of itself is significant. The basic areas of his questions are:

1. Interpersonal relations: Includes capacity for involvement with others, the ability to interact skillfully with peers, superiors and subordinates, without arousing hostility or rejection. Such rapport will involve social sensitivity, skill, tact, and confidence in social contact. Aggressive impulses should be well socialized, and the individual will appear as autonomous rather than dependent or dominant.

2. Energy Level: Characterized by high energy, consistently and purposively directed.

3. Goal Orientation: Will be persistent in attacking problems, although not inflexible. When confronted with possible failure, the individual will counteract, striving in order to overcome obstacles, rather than withdrawing or otherwise avoiding the issue. Although primarily intrceptive, the student will focus on people and personal relations. The configuration under consideration here involves dramatic, idealistic social action, active modification of reality to conform to a private value-system, and the expression of ideals in a concrete form. The content of this system should be socio-political as well as religious (p.77).

Stern's point that GPA and intelligence are not primary predictors is reinforced by the findings of Flatt (1973), and Maehr and Stake (1962).

Roscoe and Girling (1970), using an extensive mail survey of 765 seminarians, found they had a rather strong commitment to American-style democracy with its emphasis on private initiative, racial tolerance, and moral responsibility. In a review article of the literature on ministerial personality, Barry and Bordin (1967) found that the successful minister is introspective, idealistic, and concerned with right and wrong. They also tend to adopt a service role with a mixed masculine-feminine modality. And finally, they choose an occupation which requires public self-display, an attribute of a high 3 (Hy) on the MMPI. Again it is interesting to note that the majority of their findings can be summarized as having a high Mf on the MMPI.

Nauss (1983), using 400 Missouri Synod Lutheran pastors and seminary students, found seven different styles of leadership for various ministerial functions. However, several traits were consistent across all seven job categories and seem to be the traits needed for effective ministry in general. These traits are

positiveness about their congregation, use of feedback, motivation derived from job dimensions and satisfaction with work tasks. Finally, Hoge , Dyble and Polk (1981), studying Protestant churches in Chicago, found that the objective measures of ministry such as church size, income and age did not predict vocational commitment. In contrast he also found that personal fulfillment factors such as challenge and skill utilization and spouse's satisfaction had a great influence on vocational commitment. Local congregational factors such as staff relationships and conflict management could also successfully predict vocational commitment.

General Null Hypotheses

From the broadest perspective this study is intended to sample the variables which theoretically will predict seminary adjustment/maladjustment, and to correlate these variables with the MMPI, SAS, and SCS.

1. The norm profile for seminary students will not differ significantly from that of the general population norms as published by Swenson, Pearson and Osborne (1973), Hathaway and McKinley (1957), and Colligan, Osborne, Swenson and Offord (1983).

2. There will be no significant differences on various MMPI scales between the student's clustered high and low by professor's ratings.

A. Faculty ratings will not correlate with students clustered high by the rating instruments.

B. Students clustered low by the faculty will not be discernible by their MMPI profiles from those clustered high by the faculty.

3. There will be no significant differences on the MMPI scales between first, second and third year students.

4. The norm profile for seminary faculty does not differ significantly from that of the general population norms.

Conclusion

The exclusive use of the MMPI for screening M.Div. students is generally not recommended due to the confusion in the literature. Rather, using multiple criteria to attempt to measure students on seminary adjustment is an essential first step. This study has selected the MMPI as one of the established instruments to measure psychopathology. It will eventually be compared with the TSCS, spiritual scales, demographics

and other instruments developed more subjectively to quickly measure adjustment to seminary life. The individual measures used in the study all have good to excellent predictive validity. The Seminary Socialization Scale (SSS) is the exception to this since it is being developed. Other instruments used are the BEVIN from Rotter's sentence completion which has between a 75-80% probability of correctly separating maladjusted from adjusted. Also the Seminary Attrition Scale (SAS) from Trachsel (1973) is reported to predict drop-outs with a 93.5% accuracy when developed and 70% of the time on retest.

The introduction has also shown the characteristic personality make-up of a successful seminarian. In general they are positive about their job and vocation, strong on personal responsibility, and private initiative, introspective, idealistic and able servants. They take their religion seriously at the intrinsic level and really seek to experience God. Lastly, they are sensitive to others' interpersonal needs and socially perceptive to the point that they don't create defensive or hostile reactions in people with whom they interact. These attributes were kept in mind when developing the Seminary Socialization Scale.

This study's hypotheses concerning verifying actual differences between adjusted and maladjusted seminarians were developed in light of the predictive ability of the above scales and the research centered on understanding the typical seminarian's personality.

CHAPTER 2

METHOD

Overview of the Method

This section is divided into four areas. The first describes the subjects, including a brief demographic section. The second describes the clinical instruments used; this section describes all the scales used in the study including those developed by the author. The third area describes in detail the procedure used to gather data. Finally a brief summary of the methods is provided.

The Subjects

The subjects in this study consisted of 55 randomly selected male, Master of Divinity students at Western Conservative Baptist Seminary in Portland, Oregon. They were selected from the first through third year classes in the spring quarter of 1984. This quarter was selected to insure that the subjects had a minimum of two quarters on campus to allow adequate professorial exposure so that meaningful professorial ratings could be gathered.

Demographically, the participants ranged in age from 23 to 48 years old, 42 (76%) were married, and 13 (24%) were single. All were professing Christians. The mean number of credits was 62 quarter hours, 144 being required for graduation.

Originally 100 subjects were drawn randomly without replacement using student mailbox numbers and a random numbers table. The final goal was securing 60 students who met the selection criteria of being male, M. Div. students. The first person on the list was considered for meeting the criteria of being a male, M. Div. student; the person was deleted if the criteria were not met. This process was repeated until sixty persons had been chosen who met the criteria.

Instruments

This section is divided by instrument into five areas describing the Background Inventory, MMPI, Seminary Attrition Scale, Sentence Completion Scale and the Seminary Socialization Scale.

Background Inventory

The background inventory, a demographic questionnaire designed by the author, collected data pertaining to age, total number of completed credit hours, previous seminaries attended, marital status, church attendance, devotional life, religious leadership experience, financial condition, and social relationships (see Appendix A).

MMPI

The Minnesota Multiphasic Personality Inventory (MMPI) is an objective self-report personality inventory which consists of 566 true/false questions. The test was originally developed by Hathaway and McKinley in 1943 as a diagnostic instrument for use in mental hospitals. The MMPI has three validity scales and 10 standard clinical scales. Over 100 other scales have been developed from the 566 item pool.

L

There are three validity scales. The first is called the L scale and was developed to measure the degree to which the person admits or denies having very common human failings. These consist of 15 minor human flaws such as getting angry at times.

F

The second validity indicator is the F scale. It consists of 64 items on which only 10% of the general population answered in the scored direction. It detects deviant or atypical ways of responding to test items.

K

The third validity scale is the K scale. The 30 item K scale is a more subtle measure of the persons tendency to present themselves in a favorable or an unfavorable light.

Hypochondriasis

Scale one consists of 33 items and is called Hypochondriasis (Hs or 1). It reflects the level of concern about health and the tendency to report a variety of somatic symptoms.

Depression

The 60 item Depression scale (D or 2) indicates the amount of pessimism or general dissatisfaction a person is experiencing in their life. It also indicates the amount of psychological pressure. When any of these is taken to extreme it is pathological.

Hysteria

The 60 item Hysteria scale (Hy or 3) is comprised of two types of questions. One group deals with the denial of physical health and a variety of somatic complaints. The other group involves questions centering on general denial of psychological or emotional problems and problems dealing with social situations.

Psychopathic Deviant

The 50 item Psychopathic Deviant scale (Pd or 4) is a complex scale which was developed to identify the people with character disorders. It is the scale which points out people who lack the ability to feel deeply, assume responsibility or abide by social mores.

Masculinity/Femininity

The 60 item Masculinity/Femininity scale (Mf or 5) was originally developed to identify homosexuals but it was quickly discovered that they could conceal this by selective responses to items. The scale was since modified and now reflects the degree of identification with traditional sex roles.

Paranoia

The 40 item Paranoia scale (Pa or 6) identifies people who are suspicious, overly sensitive, and

inclined toward delusions of persecution. The scale produces very few false positives.

Psychasthenia

The 48 item Psychasthenia scale (Pt or 7) measures obsessional ideation, compulsive behavior, rigidity or perfectionism.

Schizophrenic

The 78 item Schizophrenic scale (Sc or 8) measures bizarre schizophrenic type thinking, and major disturbances in mood, behavior and thought.

Hypomania

The 46 item Hypomania scale (Ma or 9) identifies those with a marked over-productivity of thought or action and the tendency to become involved in a large number of projects which are often left incomplete.

Social Introversion

The 70 item Social Introversion scale (Si or 0) measures the degree a person is comfortable in interacting with others. People with high scores are generally introverts, those with low scores are usually extroverts.

Measures of Student Adjustment

Three instruments were selected by which to assess how well individual students are adapted to seminary life. They were selected in order to gain data in different aspects of an individual's overall adaptive functioning.

The SAS Scale

The first instrument, the Seminary Attrition Scale (SAS) is a set of 54 questions developed from the MMPI by Trachsel (1973). A sample of seminary students, some who failed to finish school, were found to answer differentially on particular questions. The items were initially selected by Item analysis. Then chi-square values were computed for each item; items were placed in the scale if they differentiated between the two groups at a $p=0.03$ level with one degree of freedom. The instrument had a 92.5% predictive validity on the norm sample. A cross validation found it to be accurate 70% of the time for predicting seminary attrition. Examples of the items and direction of significant response are:

Criticism or scolding hurts me terribly (T),
I wake up fresh and rested in the mornings (F),
Religion gives me no worry (F),

I am inclined to take things hard (T),
I am usually calm and not easily upset (F),
Several times I have given up doing a thing
because I thought too little of my ability (T),
I like parties and socials (F),
I read the bible several times a
week (F), (p. 26-29)

(See Appendix B for a complete list of the questions
and their respective chi-square values.)

Sentence Completion

A modified Rotter Incomplete Sentence Blank,
called the Sentence Completion Scale (SCS) was the next
instrument used. It is a 40 question self report
measure which was developed in 1950 as a quickly scored
single measure of overall psychological adjustment
(Rotter and Rafferty, 1950). The scoring manual
states that:

This overall adjustment score is of particular
value for screening purposes with college students
and in experimental studies. For example, it has
been used in a college health service for
selection of individuals needing psychological
help, as well as providing the potential therapist
with an early evaluation of the student. (p. 7)

The ISB (Rotter's Incomplete Sentence Blank) has also been used in a vocational guidance center to select students requiring broader counseling than was usually given, in experimental studies of the effect of psychotherapy, and in investigations of the relationship of adjustment to a variety of variables, (Rotter and Rafferty, 1950).

The corrected split-half reliability of the Rotter is .84. Using a cutting score of 135 as the demarcation between adjusted and maladjusted, the scale correctly identified group membership of 75% to 80% of the participants.

Another instrument, the Baptist Evaluation Instrument (BEVIN) was developed from Rotter's sentence completion test and has been used extensively and successfully in screening missionary candidates in 1980 (Smith, 1984). In this study, the BEVIN, which modified seven items on the Rotter for applicability to missionaries, was modified for specific applicability to seminary students. Two items were restored to the original form used by Rotter. The remaining five items, specifically numbers 6, 8, 16, 30 and 38 used the BEVIN form, which worded the following changes from

the original Rotter questions: number 6 was changed from, "At bed time..." to, "Witnessing...", number eight was changed from, "The best..." to, "Pastors...", number 16 from, "Sports...", to, "To reach...", number 30 from, "I hate...", to, "Prayer meetings...", and number 38 from, "Dancing...", to, "Poverty...". The scoring procedure and sample questionnaire are in Appendix C.

Seminary Socialization Scale

The third measure of adjustment is a questionnaire developed by the author designed to assess the degree of seminary socialization. The items of this scale were constructed from the seminal work of Stern (1954). Stern's primary goal was to establish face valid questions probing the areas of interpersonal relations, energy level and goal orientation. He felt these areas comprised the basic traits of a successful seminarian. His work was developed in conjunction with seminary faculty and was later empirically tested using IQ measures, Rorschach, TAT, sentence completion and figure drawings. It was reported to be 100% valid even though the sample size was only six students (although other sources cite 16 students). Stern (1954) observes that, "The complete replication of the faculty's

judgments by the assessors is statistically significant, ($p=.05$), despite the small number of cases" (p. 79).

It is obvious that research methodology has changed in the intervening 30 years since Stern published these rather optimistic remarks. Nonetheless, his efforts are worthy of consideration. It is especially noteworthy that his assessment procedure avoids academic and intellectual acuity measures.

The questions on the Seminary Socialization Scale (SSS) were developed and arranged into four basic groups under two general headings, specifically, intrinsic and extrinsic orientations. The two clusters of questions under the intrinsic heading are Flexibility/Rigidity and Coping/Adjustment. The two clusters under the Extrinsic heading are Social Relationships and Appropriate/Inappropriate Behavior. The questionnaire and the questions' respective subgrouping are in Appendix D.

Scoring the SSS is accomplished by reversing the responses on questions 1, 2, 4, 5, 7, 8, 20, 21 and 23 and adding the total for all 23 questions.

Procedure

Validation Sample

A validation sample was drawn for two reasons. The first was to explore the relationship between the three measures of Student Adjustment described in the last section and a professorial evaluation of the subjects adjustment/maladjustment to seminary. The second reason was to check the the range of responses given by both professors and students.

Professor Rating

Five professors, from whom each Master of Divinity (M.Div.) student was required to take course work, agreed to provide a list of 15 students most adapted to seminary life and a list of 15 students who were least adapted. The professors were each given a copy of Stern's (1954) nonacademic adjustment criteria to select the subjects with. After the professors had completed their lists, the two lists were compiled and a total of 16 students were selected, 8 from each list. The students' names were counted and totaled for how many of the lists they appeared on. Students were then selected beginning with those who were chosen most frequently until eight from each list had been selected.

The eight subjects forming the adapted group consisted of three persons who were selected by four of the five raters, and five persons who were selected on three of the five lists. Another eight subjects appeared on two of the five lists and were reserved as potential replacements.

The eight subjects selected who comprised the maladjusted group consisted of one subject who was on four of the five lists, two who were on three of the five lists and five who were on two of the five lists. Another seven individuals who were also selected on two of the five lists remained as possible replacements.

Of the eight subjects initially selected for the adjusted group, one could not be contacted and another had dropped out of school. Both were replaced by randomly selecting two from the reserve list.

Of the eight subjects initially selected as the maladjusted group, one refused to participate and another had dropped out of school. They likewise were replaced from the reserve list.

Student Council Rating

In addition to the faculty raters, 12 members of the student council were requested to provide lists of adjusted and maladjusted seminarians according to the

Stern criteria. Of the 12 members, five refused to participate. Of the seven who did return lists, four identified so few maladjusted students that their data was of no use. Overall, after the lists were compiled, only one name was on three of the seven lists, and only four additional names appeared on more than one list. Due to the low interlist overlap and poor response the decision was made not to use the student council data in the statistical analysis.

Administration

The entire test package consisting of all three adjustment scales, the MMPI, the Tennessee Self-Concept Scale (TSCS), Spiritual Well Being Scale (SWB), Religious Orientation Scale (ROS), and the Spiritual Maturity Scale (SM) were given to each person on the two lists.

One from each group failed to return the test packet in time for the data analysis, another one selected for the maladjusted group refused to participate. This resulted in a final sample of seven adjusted and six maladjusted persons.

Random Sample

The subjects described in this section were drawn by randomly selecting students by their mail box numbers and excluding female and those in programs other than the M.Div. until the goal of 100 was reached. The first 60 students on the list were asked to participate in the study with the remainder serving as replacement subjects. The students in the validation sample were eligible for selection in the random sample.

Data Collection Preparation

Before the subjects were selected a general school wide announcement was made concerning the study by the Dean of Students in a chapel service in April, 1984. A brief statement appeared shortly afterward in the school paper to the effect that the school was conducting a normative study on the MMPI and TSCS and that the participation of each person selected was essential for valid results.

The subjects were then selected as described above and mailed a letter signed by the Dean of Students on school letterhead, explaining that they were randomly selected for this study and that their participation was essential. The letter offered them five scheduled

times for the administration of the test packet. The students were asked to select one of the five periods and to return the letter to the Dean of Students Mailbox.

All five periods were scheduled for the third week of the Spring quarter of 1984. This week was selected since typically less academic effort is required during this part of the quarter. The times were selected by using a class schedule to obtain blocks of time with the least number of classes. Special arrangements were offered for those who could not make any of the five sessions. A sample of the letter and the general announcements made are included in Appendix E.

The Testing Sessions

At the beginning of each testing session a set of standardized instructions was read to the students. They were encouraged to answer all the questions openly and honestly. Further instructions included a request that they answer the questions from a present tense perspective, and that many of the questions would be difficult to totally affirm or deny since they were dichotomous.

Confidentiality was assured and they were told of the number-name coding system to which only the researchers had access. The testing sessions were open-ended timewise.

At this point a packet with a code number was given to each student. The packet consisted of the MMPI, the TSCS, SWB, SM, ROS and the SAR devices. The student was also asked for the names of five WCBS professors they believed could rate them on seminary adjustment. These names were not used due to a poor response rate on the students part. Many of the students found it difficult to complete the form, others chose not to complete it at all. (A copy of the standardized instructions is in Appendix F.)

Data Collection

A total of 35 students confirmed a testing time, and 23 students completed the test packet at one of the scheduled testing sessions. The author and fellow researcher then contacted the remaining students by telephone offering them two additional testing sessions. An additional seven students completed testing in one of these sessions.

At this point, approximately three weeks had elapsed since the initial chapel announcement by the

Dean of Students. The author and fellow researcher again contacted the remaining students, this time offering them take-home test packets. Those contacted agreed to return them within seven days. Names of those who proved difficult to contact were turned over to the Dean of Students office for the Dean to contact.

At this stage, one student declined to participate and it was discovered that another student had withdrawn from school. These students were replaced with numbers 61 and 62 from the replacement pool. At this point all 60 test packets had been administered.

Seven days later 18 of the packets had not been returned; those who had not completed testing were again contacted. Additionally, announcements were made in the school paper requesting return of the packets. Finally, another list was given to the Dean of Student's office to help contact those who had not completed and returned their packets. Approximately 12 weeks after the initial chapel announcement statistical analyses were begun on a total sample of 55 subjects.

As originally conceived, the study was to include faculty participation to establish MMPI norms for the faculty. Part of the use for the faculty norms would have been to compare the students and the faculty.

This data proved impossible to obtain since there was no time available to schedule a testing session for faculty before the beginning of the summer break.

Summary

The method used to obtain the validation sample began with obtaining professorial ratings of the seminary's least and most adapted students using Stern's (1954) criterion. Of the 16 adjusted and maladjusted students originally selected 13 returned the test packet.

The method used to obtain the random sample was a simple survey style with the school administration's cooperation and help. The process was to announce the project in chapel and to schedule several formal testing sessions for the convenience of the students. All the participants in the formal testing sessions combined resulted in the collection of 30 subjects data. The remaining students were offered "take home" test packets with written instructions identical to those read during the formal sessions. With the aid of the Dean of Students data for another 25 students was obtained by the 12th week after the initial chapel announcement. The 55 students who completed the test package represent 92% of the original 60 selected.

CHAPTER III

RESULTS

Introduction

This chapter presents the results in six sections. The first section presents the data from the validation sample. The second discusses the missing data. The third section presents the norm sample's descriptive statistics for the demographics, the special test instruments and the MMPI. The fourth section details the results of the four general hypotheses. The fifth section contrasts the MMPI, special scales, and demographics with other populations and within scales. And finally, the sixth section provides a summary.

A two-tailed test of statistical significance was utilized and the critical value for $|r|$, $|F|$ and $|T|$ was set at $p \leq .05$. All statistics were calculated using SPSS/PC as the computational package on an IBM XT computer system. All the correlations were calculated using a Pearson's R formula and all the T tests were calculated using a two tailed independent group statistic.

Data from the Validation Sample

Table 1 details the significant relationships between the professor ratings and adjustment for the validation sample. Out of 104 correlations, a total of four scales were significant, GPA and D4 at the $p \leq .01$ level and Age and ST at the $p = .05$ level.

Table 1

Significant Correlations Between the Adjusted and the Maladjusted Groups From all 104 Variables of the Demographics, Special and MMPI Sections, and their Corresponding T Values

	CORRELATION WITH GROUP	T TEST
GPA	-.7721**	5.24**
AGE	.6064*	-2.53*
ST	-.6317*	2.70*
D4	.7640**	-3.93**

Notes. (1) * $p \leq .05$, ** $p \leq .01$

(2) N=13, seven adjusted and six maladjusted

It became apparent after analysis of the data from the validation sample that it was of little use for two reasons. First, the results could be entirely a chance phenomena since one would expect to find 5-6 out of 104 significant correlations purely by chance. Secondly, two of the scales are measures of mental acuity. This seems to indicate that the raters used a cognitive schema to select the subjects rather than the criteria that they were requested to follow. If the cognitive variables were removed from professor ratings, the remaining variables would be of little or no value for this study. The decision was made at this point to abort further work with the validation data.

Missing Data

The statistical aspect of missing data will be addressed in this section.

Nonrespondents

Since 55 of the original 60 test packets were returned in time for data analysis, the effect of having an abbreviated sample was statistically appraised. The last five test packets returned were duplicated and the correlations rerun with an N of 60. The rationale for this process is that the people who

were most resistant in returning their test packets were thought of as most similar to those who refused to return their's. This effort most closely approximated the actual missing data. The net result yielded a maximum difference of plus or minus seven percent from the sample of 55. Therefore, the results of the sample of 55, which is a final return of 91.6%, are considered an accurate and representative sample of the school.

Incomplete Responses

As mentioned in the method section, the Seminary Socialization Scale (SSS) was developed and worded so that both the ratee and the raters could use it. This proved confusing to some of the participants and resulted in 11 of the 55 from the main sample not filling it out. One person in the maladjusted group of the validity sample failed to fill it out as well. Little can be done statistically about the missing data, therefore all statistics were run with 44 subjects when using the SSS.

Another bit of missing data came from two persons refusing to complete the sentence completion section and one person neglecting to fill out the second page of the demographics section. Again, nothing could be done about this loss.

Descriptive Data for Norm Sample

A set of descriptive statistics for the Special Scales, Demographics and MMPI scales including range, minimum, maximum, mean, sample size and standard deviation are available in Tables 2, 3 and 5.

Special Scales

The Special Scales are comprised of the Sentence Completion (SCS), Seminary Socialization (SSS), the New Seminary Socialization (NEWSSS) and the Seminary Attrition (SAS) scales.

Table 2

Descriptive Statistics for the Special Scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
SCS	115.91	17.47	77.00	79.00	156.00	53
SSS	59.11	14.23	53.00	34.00	87.00	44
SAS	18.42	4.39	18.00	11.00	29.00	55
NEWSSS	51.07	14.04	55.00	25.00	80.00	44

SCS

The mean from the standardization data for the SCS was 116 with a Standard Deviation (SD) of 18. The recommended cutoff for maladjustment is 135, (Rotter, 1950). In this norm sample eight (15%) of the 53 respondents were above this cut-off.

SAS

The mean from the standardization data for the SAS is 18 with a SD of 4, the recommended cut off for this scale is 25. Ten (18%) of the 55 participants were above this cut-off.

SSS

Finally the SSS from the standardization sample has a mean of 59 and a SD of 14. The recommended cut-off score is 77 for this scale. This cut-off was selected by viewing the array of scores and selecting a point which most clearly divided the sample into two groups. Seven (15%) of the 44 participants scored above the cut-off.

An item analysis of the SSS was conducted by correlating the SSS summary score with the 25 individual questions of the SSS. All the questions except 1, 7, and 20 were significantly correlated with the SSS total score at or beyond the the $p < .01$ level,

($r \geq .403$). It was recommended that questions 1, 7 and 20 be dropped from the scoring procedure.

Consequently, a new SSS composite score called NEWSSS was computed excluding items 1, 7, and 20.

Demographics

The descriptive statistics for the demographic section from the norm group are in Table 3. Additionally, Figures 1-12 graphically depict how the sample responded to the various questions.

General background

The mean GPA for the school is 3.35 (SD 0.44) on a four point scale. The mean age is 29.4 (SD 5.3) and this sample had a mean of 62 quarter hour credits (SD 40) completed. Of the 55 subjects, 42 (76%) were married. The remaining 13 (24%) were single.

A comparison of the standardization sample and the entire population of male M.Div students was run on the variables Age, GPA, Credits and Marital status. No significant differences were found with the exception of the standardization sample having more single students.

Table 3

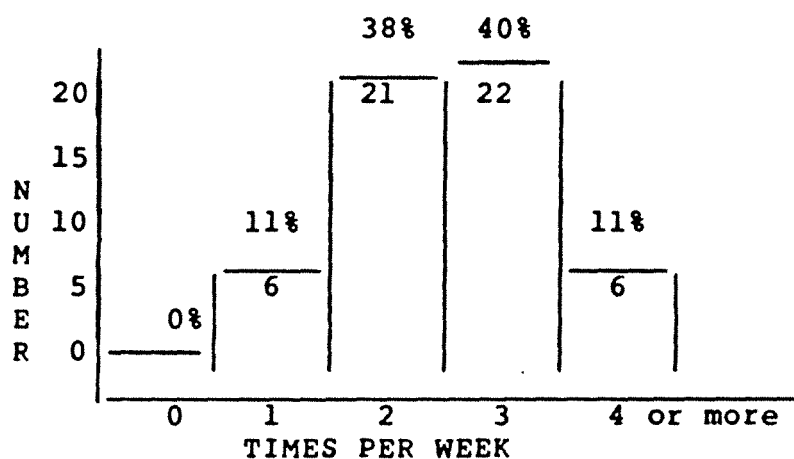
Descriptive Statistics for the Demographics

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
GPA	3.35	.44	1.91	2.09	4.00	55
AGE	29.42	5.29	25.00	23.00	48.00	55
CREDITS	61.91	39.93	137.00	8.00	145.00	55
OTHRSEM	.11	.31	1.00	0.0	1.00	55
MARIT	1.76	.43	1.00	1.00	2.00	55
CHURATT	2.51	.84	3.00	1.00	4.00	55
PERSDEV	4.69	.72	4.00	2.00	6.00	55
FAMDEV	3.38	1.77	6.00	1.00	7.00	55
DURPERS	3.96	1.23	6.00	0.0	6.00	54
DURFAM	2.35	1.88	6.00	0.0	6.00	54
YRSLDR	4.35	3.37	15.00	0.0	15.00	54
CAPICT	2.61	1.63	5.00	0.0	5.00	54
IMPORT	6.87	.44	2.00	5.00	7.00	54
FINANC	5.76	1.43	5.00	2.00	7.00	54
SOCA	4.24	1.68	5.00	2.00	7.00	54
SOCB	5.65	1.22	5.00	2.00	7.00	54
SOCC	5.72	1.09	6.00	1.00	7.00	54
SPOUSEA	6.02	1.49	6.00	1.00	7.00	42
SPOUSEB	6.52	.86	4.00	3.00	7.00	42

Frequency of functions

The mean frequency of attendance of Church related functions was 2.5 times per week. Figure 1 indicates that all subjects attend at least once per week, 89% at least twice, 51% at least three and 11% four or more times per week.

Figure 1. Frequency of Attending Church Functions



Religious devotional life

The norm sample had personal devotions an average of four to seven times a week for an average duration of between 15 and 59 minutes per session. Figures 2 and 3 graphically display these findings. Subjects having personal devotions between four and seven times per week accounted for 65% of the sample. Another 24% reported having personal devotions 1-3 times per week.

Figure 2. Frequency of Personal Devotions

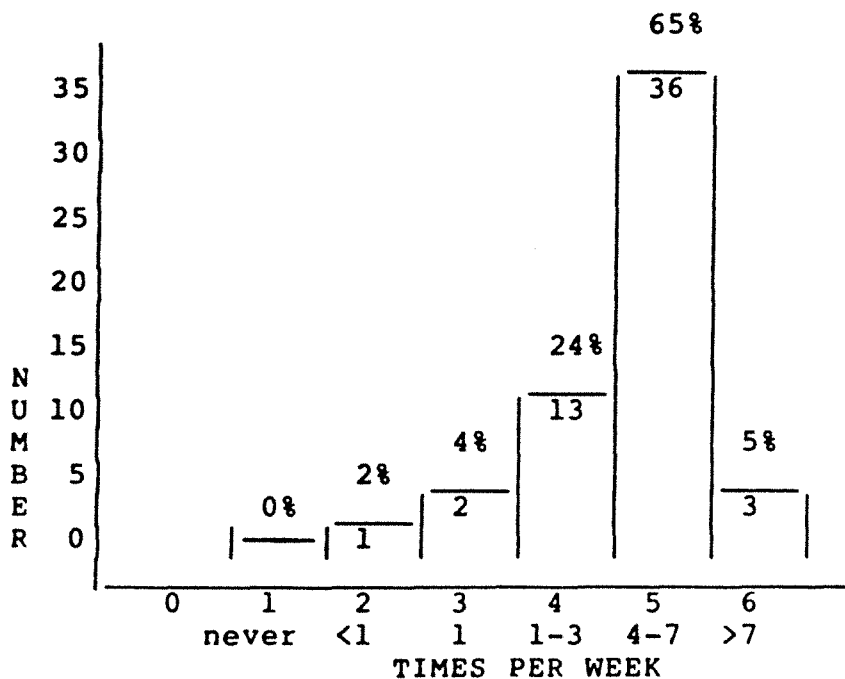
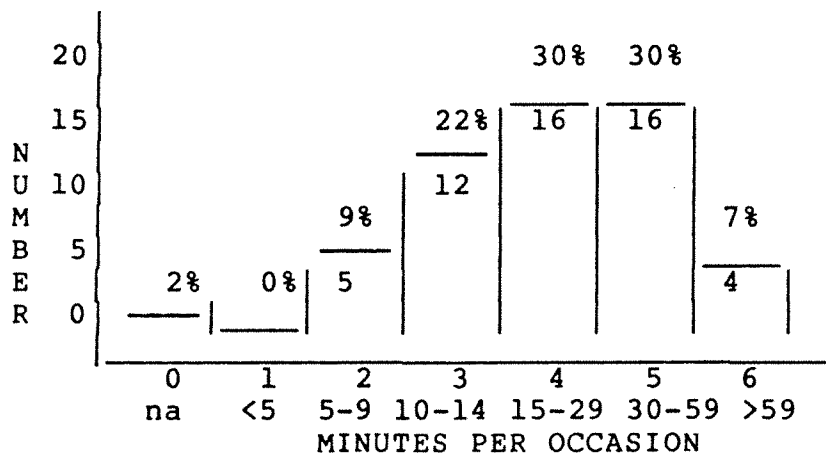


Figure 3 shows that 30% of the subjects have an average duration of personal devotion of between 15 and 29 minutes, another 30% average between 30 and 59 minutes. Those with devotions lasting less than 15 minutes accounted for 33%. Finally, 7% reported devotions of greater than 59 minutes.

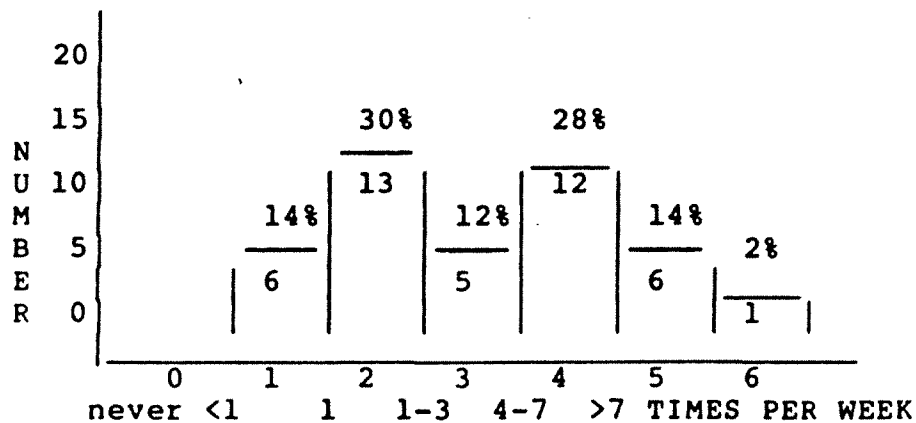
Figure 3. Average Duration of Personal Devotions



Family religious life

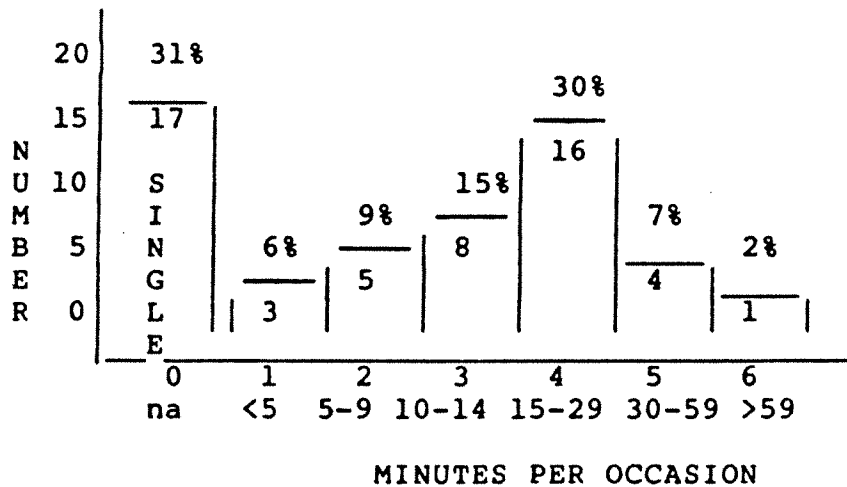
Six, (14%) of the married subjects did not report any family devotions. Of the 37 (84%) that report family devotions the mean frequency was 1-3 times per week for an average of 15 minutes per session. Figure 4 shows family devotions is bimodal. Two groups clearly stand out, 30% had devotions less than once per week and 28% had them between one and three times per week. The other groups are 12% at once per week, 14% between four and seven and 2% at greater than seven.

Figure 4. Frequency of Family Devotions



The duration of family devotions is negatively skewed with 30% reporting devotions of between 15 and 29 minutes, Figure 5. Fifteen percent report times from 10 to 14 minutes, 9% between five and nine, 6% less than five, 7% between 30 and 59 minutes and finally 2% greater than 59 minutes. There were 17 (31%) who were single and had no family devotions.

Figure 5. Average Duration of Family Devotions



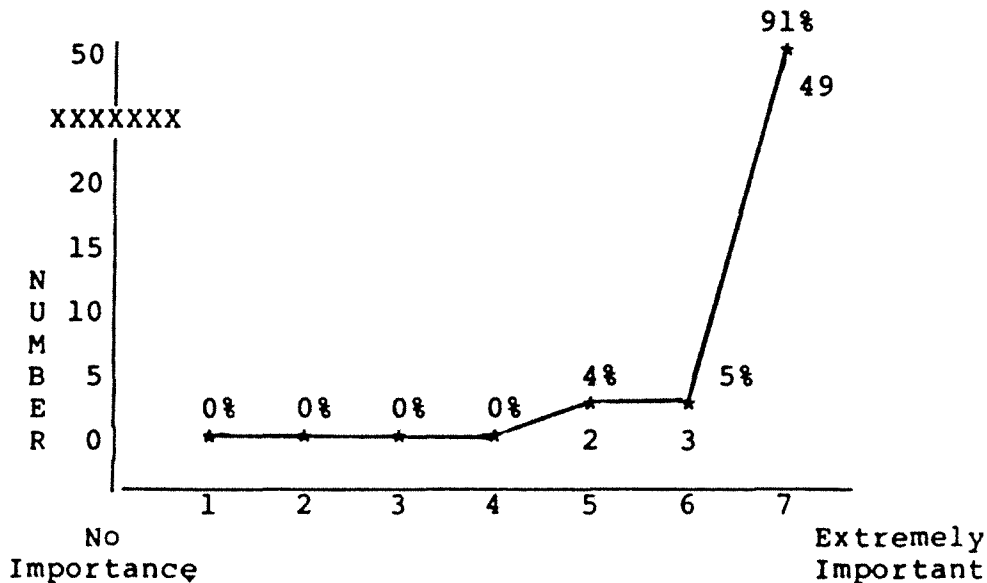
Religious leadership experience

The students had a mean leadership experience of 4.4 years (SD 3.5); 43% reported having worked as a Church School Teacher. Other capacities include 11% as Pastors, 4% as missionaries, 7% as Elder or Deacons and 26% in some other undefined role.

Importance of religion

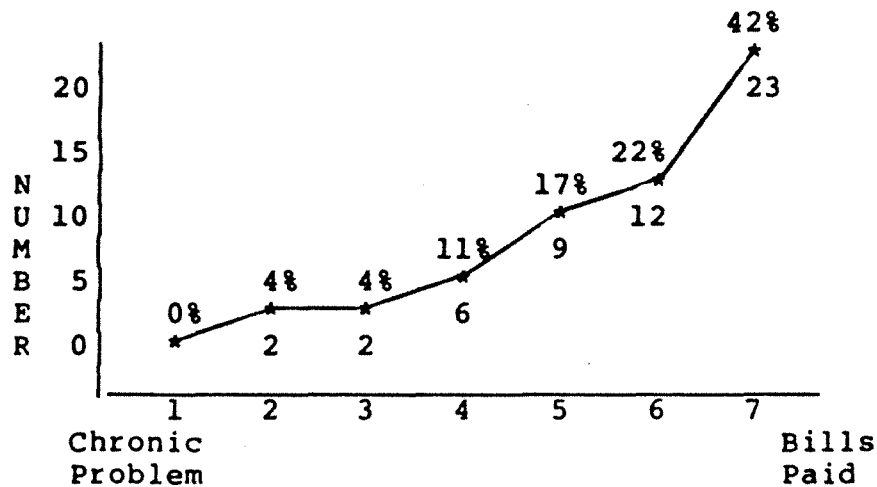
On a standard Likert scale of from one to seven, 91% of the norm group felt that the importance of religion rated a seven. This produced a mean of 6.9 (SD 0.4). This represents a very negatively skewed population. Of the remainder, 5% rated it a six and 4% a five, no one rated it less than five as shown on Figure 6.

Figure 6. Importance of Religion



Financial condition

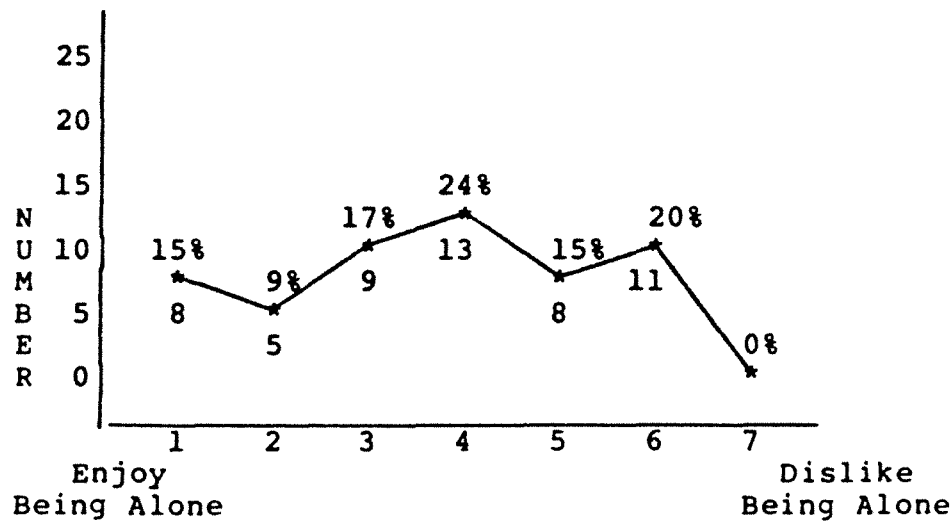
On another seven point scale persons in the norm sample rated their financial condition at an average of 5.8 (SD 1.4), with a seven meaning all bills paid. Most subjects, 42% as Figure 7 reveals, answered a seven, 22% a six, 17% a five, 11% a 4, and 8% a three or less.

Figure 7. Financial Condition

Social relationship question, A

The mean for liking or disliking being alone on another seven point scale was 4.2 (SD 1.7) or roughly mid scale (see figure 8). Figure 8 is the most platykurtic distribution of the study. Starting with the low, 15% answered a one, 9% a two, 17% a three, 24% a four, 15% a five, 20% a six and 0% a seven.

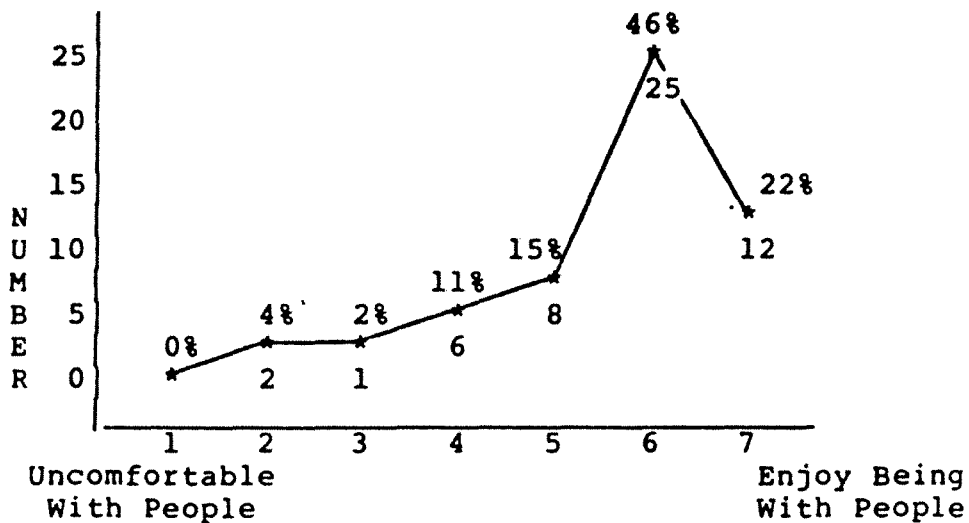
Figure 8. Social relationship question, A.



Social relationship question, B

The mean for whether the subjects enjoyed being with people versus being uncomfortable with people was 5.6 (SD 1.2). Figure 9 shows 46% answered a six and 22% a seven. The remainder dropped steadily, 15% a five, 11% a four, 2% a three and 4% a two. 0% a one.

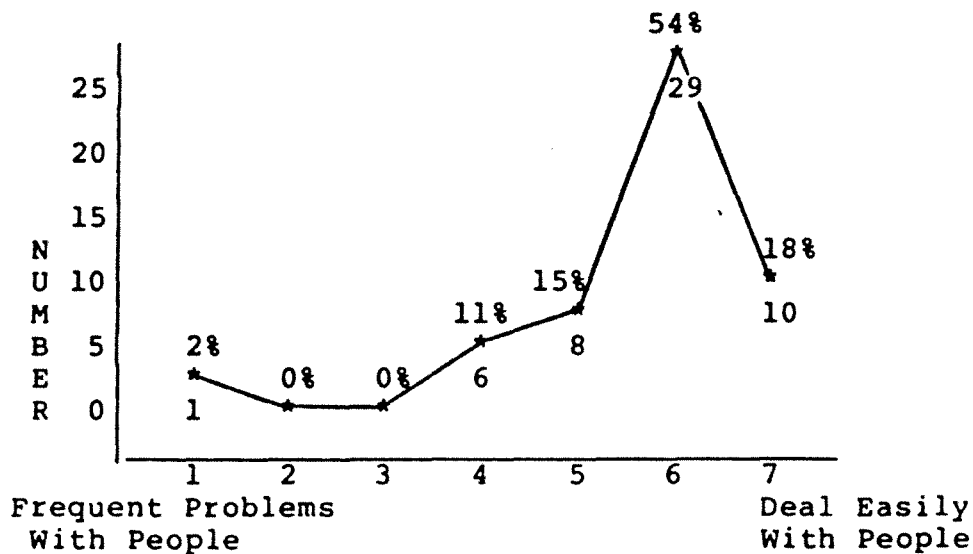
Figure 9. Social relationship questions, B.



Social relationship question, C

The last of the social relationship questions dealt with whether the subjects could deal easily with people or had frequent problems with people. The mean was 5.7 (SD 1.1), Figure 10 depicts the percentages. Two percent answered a one, nobody answered either a two or three, 11% a four, 15% a five, 54% a six and 18% a seven.

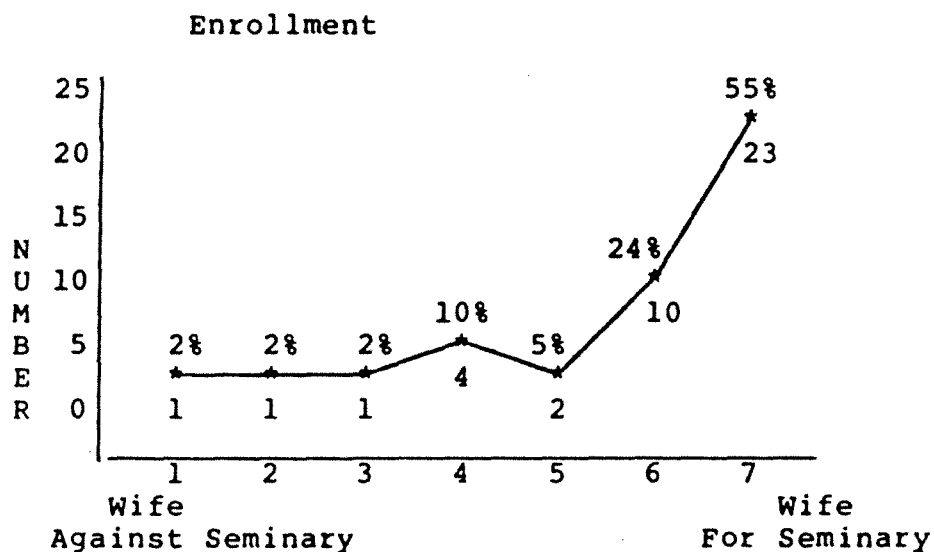
Figure 10. Social relationship questions, C.



Spousal opinion questions

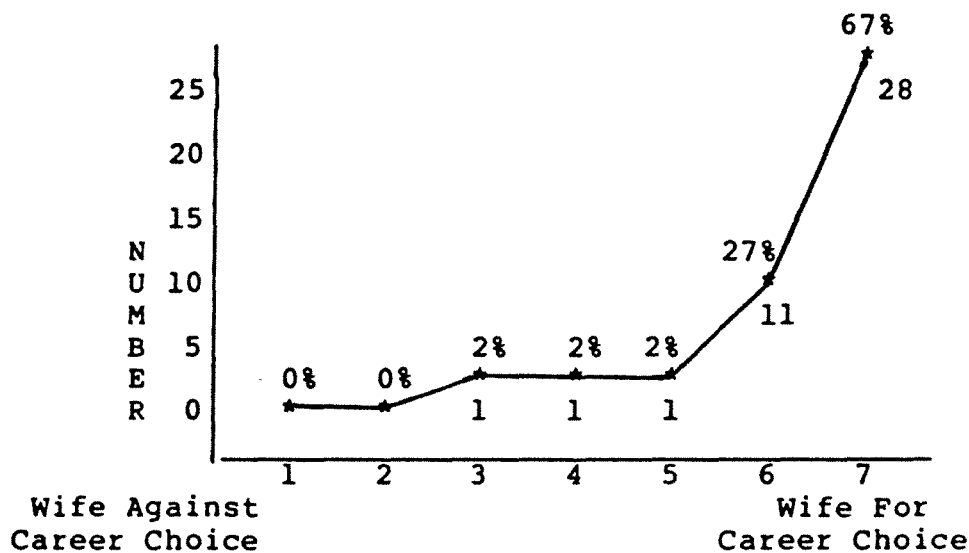
The last of the demographics questions dealt with how wives of the norm group members felt about both the seminary itself and their husband's choice of career. Participants reported that their wives were clearly in favor of their seminary involvement with mean being 6.0 (SD 1.5), Figure 11 shows that 55% of the wives were totally in favor of the school. Another 24% rated it a six, 5% a five, 10% a four and 2% each on three, two and one.

Figure 11. Wife's Perceived Attitude About Seminary



Participants reported that their wives were also in favor of their career choice, with the mean being 6.5 (SD 0.9). Figure 12 is also very negatively skewed with 67% responding a seven, 27% a six, 2% each on five, four and three, and nobody on two or one.

Figure 12. Wife's Perceived Attitude About Career Plans



Ordinal Scale Associations

Table 4 presents the significant Tau-c associations among the ordinal variables.

It was found that church attendance was associated significantly ($p=.05$) with frequency of personal devotions and at $p=.01$ with finance and their wife's attitude about their career choice, (Spouse B).

Frequency of personal devotions was associated with duration of personal devotions and Social relationship question B (uncomfortable-enjoy being with people). Frequency of Family devotions was significantly associated with duration of family devotions at the $p=.001$ level. Wife's perceived attitude about career plans, (Spouse B) was associated with Wife's perceived attitude about Seminary enrollment, (Spouse A) at the $p=.001$ level. Finally Social relationship question B (uncomfortable-enjoy being with people) was associated with duration of personal devotions at the $p=.05$ level.

Table 4

Significant Tau-c Associations Among the Ordinal Variables

Variable	Variable				
	ChurAtt	PersDev	FamDev	SpouseB	SocB
ChurAtt	1.000	.189*	.043	-.042	.317**
DurPers	.069	.204*	.023	.096	.174*
DurFam	-.027	.022	.419***	.033	-.022
Financ	.286**	.053	.080	.038	.014
SocB	.317**	.182*	.029	-.045	1.000
SpouseA	.118	.035	-.007	.398***	-.054

Note. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

General MMPI Description

The descriptive statistics for all the MMPI scales are available on Tables 5 and 6. Tables 5 and 6 consists of N size, mean, range, standard deviation, minimum and maximum. Since the raw score values on the MMPI generally are of little use outside of statistical computations, Figures 13 and 14 are provided to help clarify the data. These resultant MMPI profiles represent the norm sample's composite appearance on the

clinical, research, Wiggins and the Tryon, Stein and Chu (TSC) subscales.

Table 5

Descriptive Statistics for the MMPI Clinical Scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
L	4.15	2.38	9.00	1.00	10.00	55
F	4.76	2.76	12.00	1.00	13.00	55
K	16.85	4.03	20.00	5.00	25.00	55
HS	3.91	3.47	18.00	0.0	18.00	55
D	17.49	3.83	20.00	10.00	30.00	55
HY	20.95	3.82	23.00	12.00	35.00	55
PD	16.18	4.16	19.00	8.00	27.00	55
MF	27.67	4.27	21.00	19.00	40.00	55
PA	9.58	2.81	11.00	4.00	15.00	55
PT	10.64	5.74	25.00	2.00	27.00	55
SC	10.33	6.48	27.00	3.00	30.00	55
MA	17.00	4.15	19.00	9.00	28.00	55
SI	26.98	7.05	35.00	11.00	46.00	55

Table 6

Descriptive Statistics for the MMPI Sub-scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
FK	-12.09	5.62	28.00	-22.00	6.00	55
A	9.27	5.94	25.00	2.00	27.00	55
R	16.80	3.85	18.00	7.00	25.00	55
MAS	11.67	6.15	27.00	1.00	28.00	55
ES	47.58	4.24	19.00	35.00	54.00	55
LB	8.76	2.27	13.00	1.00	14.00	55
CA	8.69	3.66	16.00	2.00	18.00	55
DY	18.76	6.38	26.00	8.00	34.00	55
DO	17.65	2.25	12.00	10.00	22.00	55
RE	23.22	3.08	17.00	12.00	29.00	55
PR	8.58	3.80	17.00	1.00	18.00	55
ST	20.60	2.63	12.00	15.00	27.00	55
CN	23.44	3.68	14.00	16.00	30.00	55
AL	22.05	3.45	19.00	13.00	32.00	55
OH	15.67	2.27	10.00	11.00	21.00	55
D1	6.40	2.97	14.00	2.00	16.00	55
D2	5.65	1.81	9.00	1.00	10.00	55
D3	2.65	1.21	5.00	1.00	6.00	55

Table 6 (continued)

Descriptive Statistics for the MMPI Sub-scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
D4	2.09	1.71	9.00	0.0	9.00	55
D5	1.65	1.39	6.00	0.0	6.00	55
HY1	4.20	1.57	6.00	0.0	6.00	55
HY2	6.35	2.16	8.00	1.00	9.00	55
HY3	2.02	1.86	9.00	0.0	9.00	55
HY4	2.07	2.00	9.00	0.0	9.00	55
HY5	4.02	1.21	5.00	1.00	6.00	55
PD1	1.75	1.51	7.00	0.0	7.00	55
PD2	4.62	1.63	7.00	2.00	9.00	55
PD3	8.45	2.22	12.00	0.0	12.00	55
PD4A	5.44	2.45	11.00	1.00	12.00	55
PD4B	3.55	1.98	8.00	0.0	8.00	55
PA1	1.38	1.11	5.00	0.0	5.00	55
PA2	2.65	1.38	5.00	0.0	5.00	55
PA3	4.38	2.17	9.00	0.0	9.00	55
SC1A	2.25	2.19	8.00	0.0	8.00	55
SC1B	1.13	.72	3.00	0.0	3.00	55
SC2A	.80	1.28	5.00	0.0	5.00	55

Table 6 (continued)

Descriptive Statistics for the MMPI Sub-scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
SC2B	2.40	1.57	7.00	0.0	7.00	55
SC2C	1.42	1.57	6.00	0.0	6.00	55
SC3	1.27	1.65	9.00	0.0	9.00	55
MA1	.95	.95	4.00	0.0	4.00	55
MA2	5.38	2.14	11.00	0.0	11.00	55
MA3	3.85	1.63	7.00	1.00	8.00	55
MA4	3.42	1.66	6.00	1.00	7.00	55
SI1	7.38	4.67	20.00	0.0	20.00	55
SI2	3.71	1.97	9.00	0.0	9.00	55
SI3	9.95	2.24	8.00	5.00	13.00	55
SI4	3.18	1.54	7.00	1.00	8.00	55
SI5	4.51	2.24	9.00	0.0	9.00	55
SI6	2.24	1.25	5.00	0.0	5.00	55
MF1	7.40	2.79	13.00	0.0	13.00	55
MF2	4.44	1.81	9.00	1.00	10.00	55
MF3	3.89	1.61	6.00	1.00	7.00	55
MF4	2.04	.88	4.00	0.0	4.00	55
MF5	3.33	1.04	4.00	1.00	5.00	55

Table 6 (continued)

Descriptive Statistics for the MMPI Sub-scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
MF6	5.22	1.49	6.00	2.00	8.00	55
SOC	9.53	4.83	22.00	0.0	22.00	55
DEP	5.58	3.55	14.00	1.00	15.00	55
FEM	11.18	2.91	14.00	3.00	17.00	55
MOR	5.73	3.37	14.00	0.0	14.00	55
REL	11.75	.58	3.00	9.00	12.00	55
AUT	7.36	3.16	17.00	0.0	17.00	55
PSY	8.65	4.18	18.00	3.00	21.00	55
ORG	3.73	3.55	16.00	0.0	16.00	55
FAM	4.00	2.46	11.00	0.0	11.00	55
HOS	7.44	4.17	21.00	0.0	21.00	55
PHO	4.96	3.37	15.00	0.0	15.00	55
HYP	12.00	3.57	17.00	6.00	23.00	55
HEA	3.84	2.61	11.00	0.0	11.00	55

Table 6 (continued)

Descriptive Statistics for the MMPI Sub-scales

	Mean	Std Dev	Range	Minimum	Maximum	N
Variable						
TSC1	8.67	4.38	22.00	1.00	23.00	55
TSC2	3.95	3.64	16.00	0.0	16.00	55
TSC3	9.35	4.92	24.00	0.0	24.00	55
TSC4	5.02	3.82	16.00	0.0	16.00	55
TSC5	4.78	3.50	16.00	0.0	16.00	55
TSC6	6.04	3.40	13.00	0.0	13.00	55
TSC7	7.22	4.34	21.00	1.00	22.00	55

Figure 13. Mean MMPI Profile for Norm Sample

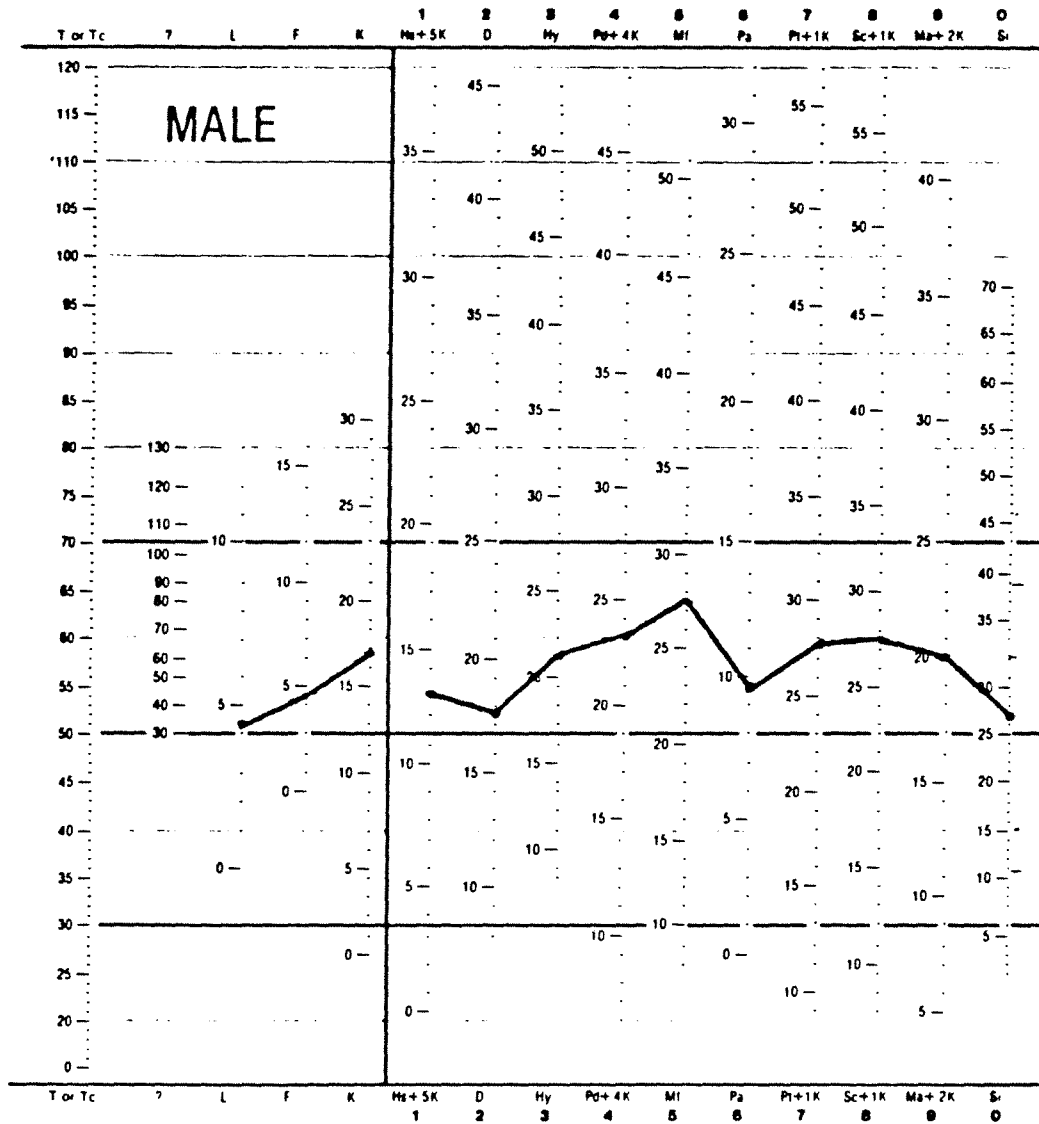


Figure 14. Mean MMPI Subscale Profile for Norm Sample

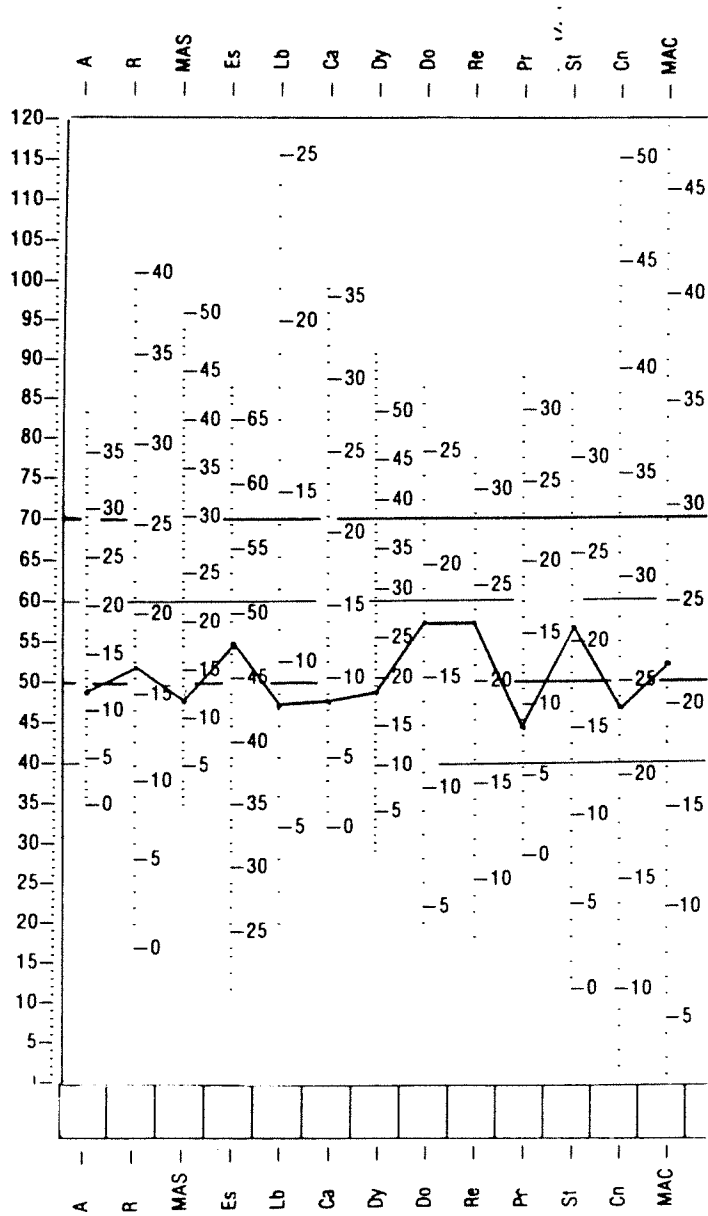
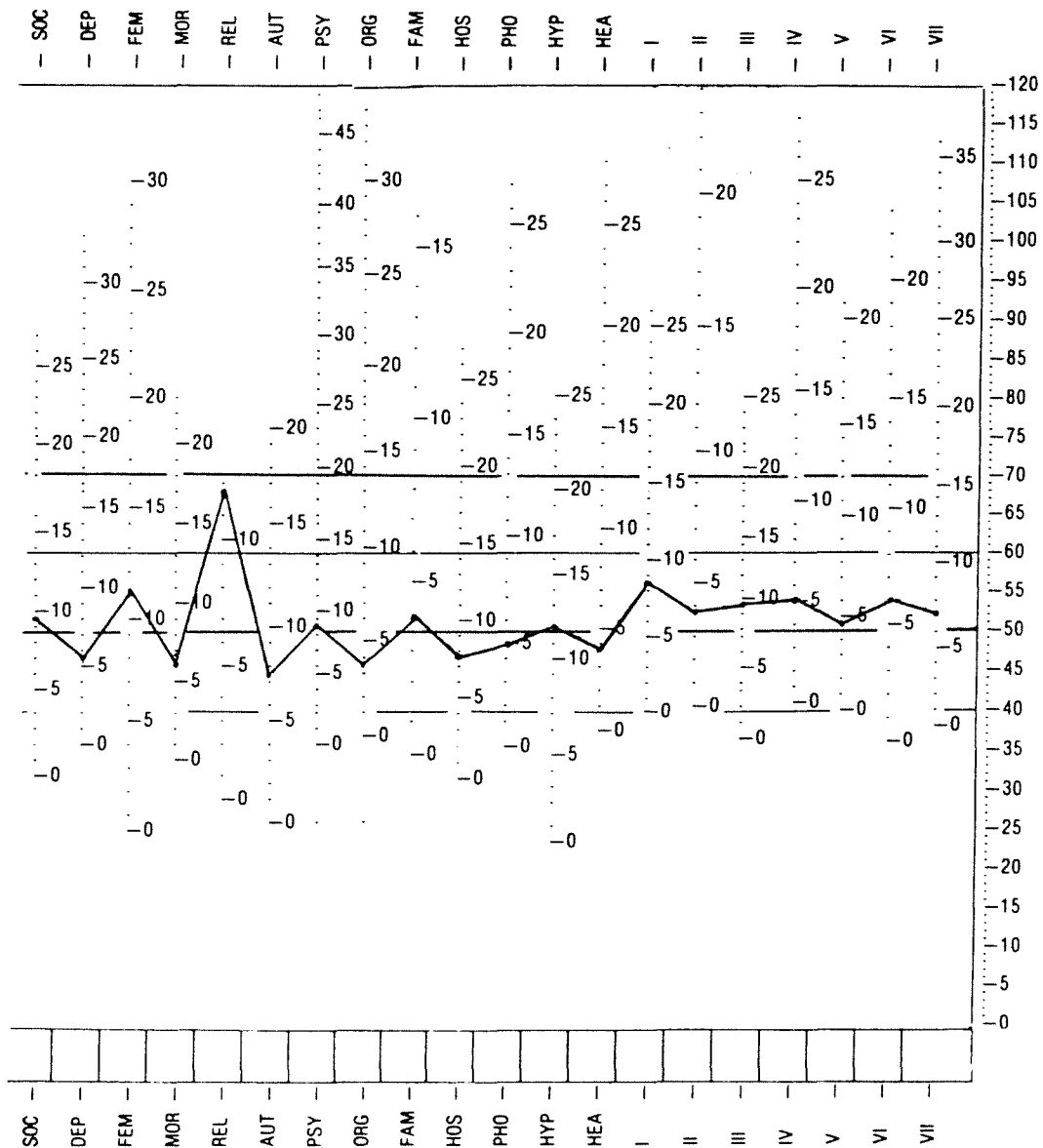


Figure 14. Mean MMPI Subscale Profile for Norm Sample
(Continued)



General Results

Hypothesis One

Hypothesis one stated that the norm profile for this population will not differ significantly from that of the general population using the Mayo norms (Swenson et al., 1973), Hathaway and McKinley's norms (1957), and the Colligan et al. new norms (1983).

Hypothesis one is partially rejected since the norm sample differs significantly on from three to six of the 13 clinical scales of the MMPI depending on which of the general population norms were used. Table 7 records the significant ($p \leq .05$) T score differences between the norm sample and the different general population norm samples. In addition to general population norms, Table 7 also compares the sample to a Dallas Seminary sample. A positive T signifies that the WCBS sample is higher than the general population or Dallas sample.

The Mayo norms (Swenson et al., 1973), in comparison to the sample have six significantly different scales. The F and 9 (Ma) scales were significant at the $p=.05$ level, while the 1 (Hs), 2 (D), 3 (Hy) and 5 (Mf) were significant at the $p=.001$ level.

Using Hathaway and McKinley's (1957) norms six scales were significant, 6 (Pa) at $p=.01$ level and K, 3 (Hy), 4 (Pd), 5 (Mf) and 9 (Ma) at $p=.001$.

The new norms developed by Colligan et al. (1983) have three scales which differ from this population. L, K and 5 (Mf) were found significantly different at the $p=.001$ level.

The Dallas sample was given as a comparison with another evangelical seminary. WCBS is significantly lower on L, and higher on F ($p=.001$). It is significantly lower on K and 8 (SC), and higher on 7 (PT) ($p=.01$). Finally, WCBS is higher on both 9 (MA) and 0 (SI) ($p=.05$).

Table 7

Significant T Scores of the MMPI Using Different Norm Groups

	HATHAWAY	MAYO NORMS	NEW NORMS	DALLAS SEMINARY
L	-0.23	-1.38	3.57***	-4.66***
F	-1.39	2.09*	0.48	3.83***
K	4.24***	-1.58	3.98***	-2.93**
HS (1)	0.99	-4.95***	1.32	1.87
D (2)	-1.42	-4.85***	1.05	1.11
HY (3)	5.77***	-3.48***	-1.64	-0.47
PD (4)	3.76***	-0.28	0.02	0.83
MF (5)	9.07***	5.58***	3.46***	1.01
PA (6)	2.99**	0.48	1.31	0.15
PT (7)	-0.72	1.01	1.16	2.59**
SC (8)	-0.71	-0.71	0.96	-3.01**
MA (9)	3.87***	2.15*	0.00	2.53*
SI (0)	-1.43	-0.94	-0.02	2.21*

Notes. (1) Minnesota normals, (Hathaway, 1957)

(2) MAYO norms, (Swenson et.al., 1973)

(3) New norms, (Colligan et. al., 1983)

(4) Dallas norms, (Parker, 1984)

(5) * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Hypothesis Two

Hypothesis two states that there will be no significant differences between the students rated adjusted and maladjusted by professors on the various MMPI scales, the demographics, or the special scales.

Hypothesis two is not rejected since only four of the 104 scales differ between adjusted and maladjusted students on the professor ratings. GPA and scale D4 (mental dullness) were positively and negatively correlated, respectively, with adjustment. Both were significant at the $p=.001$ level. The other two scales, significant at the $p=.05$ level, are Age, and St. Table 1 presents this data. Overall, the adjusted group was younger, had a higher GPA, and scored higher on Social Status. It was noted that mental ability was thematic in professor judgments of who was selected for which group. An alternative explanation is that this result could be a chance occurrence. Having only four scales differ is less than one would expect to happen merely by chance.

Hypothesis Three

Hypothesis three states that there will be no significant differences present on various MMPI scales among first, second and third year students.

Hypothesis three is not rejected since there are no significant trends present between first, second and third year students. There are, however, several significant differences among the three class levels. None represent a trend such as the first year being significantly different from the second year which is significantly different from the third year. The variables which differ among the groups are, third year students are older than the second year students. The third year students are significantly lower than the second on Ma4 (Ego inflation), Mf6 (Socially retiring), and questions eight and 16 on the SSS. Third year students differ from first year students on church attendance, where they attend more and Sc3 (bizarre sensory experiences) where they score lower. The significant differences between first and second year students are fewer; first year students are more likely to be married and have fewer family devotions, and finally they scored higher on question 16 of the SSS.

Table 8 presents the significant differences among the three classes. Between the first and second year classes two variables were significant at the $p = .05$ level, Frequency of Family Devotions and Question 16 on the SSS.

Between the first and the third year classes two variables were significant. Frequency of Church Attendance was significant at the $p = .01$ level and the SC3 scale from the MMPI at the $p = .05$ level.

There are five significant differences between the second and the third year classes. The variables Age, MA4, MF6 and Question 8 from the SSS are significant at the $p = .05$ level and Question 16 at the $p .01$ level.

Table 8

Significant T-Test Differences Between Class Levels

Variable	Classes		
	1st-2nd	1st-3rd	2nd-3rd
FamDev	-2.08*	-0.64	1.08
Question 16	2.17*	-0.52	-2.97**
Church Attend	-1.60	-2.84**	-1.08
SC3	0.98	2.05*	1.21
Age	-1.65	-0.10	2.15*
MA4	1.89	-0.36	-2.11*
MF6	0.86	-1.49	-2.57*
Question 8	1.09	-1.71	-2.27*

Note. * $p \leq .05$, ** $p \leq .01$

Hypothesis Four

Hypothesis Four states that the norm profile for seminary faculty will not differ significantly from that of the general population norms.

Hypothesis four was not tested since there were no times available to administer the test packet to the faculty before their Summer break.

Originally professor norms were to be compared with the norms by year for the students. This was not performed since professor norms proved impossible to obtain in the time frame set for this experiment.

Table 9 presents the significant differences between this sample and the norm group for the research subscales of the MMPI. All the comparison norm groups are from the various scales author. A total of 33 scales were significant at the $p \leq .05$ level, 17 at the $p = .001$.

Table 9

MMPI Subscales Which Differ From the General PopulationNorms

SCALE	T VALUE	SCALE	T VALUE
A	-2.55*	D1	-0.91
R	7.99***	D2	1.31
ES	3.68***	D3	-2.07
LB	-1.33	D4	0.61
CA	-1.17	D5	-1.92
DY	-0.51	HY1	2.52*
DO	5.63***	HY2	3.93***
RE	5.03***	HY3	-0.53
PR	-4.17***	HY4	-1.99*
ST	4.16***	HY5	6.66***
CN	-2.45*	PD1	-0.19
AL	4.27***	PD2	1.77
O-H	6.78***	PD3	1.99*

Notes. (1) T scores for the MF and SI subscales are unavailable. Serkownek (1975) published only T-score equivalents on an unspecified group of normal individuals.

(2) * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 9

MMPI Subscales Which Differ From the General Population
Norms

SCALE	T VALUE	SCALE	T VALUE
PD4A	0.28	MA3	1.61
PD4B	-0.74	MA4	2.85**
PA1	-1.76	SOC	1.63
PA2	2.23*	DEP	-2.00*
PA3	1.88	FEM	3.94***
SC1A	-3.22**	MOR	-3.22**
SC1B	-6.41***	REL	13.20***
SC2A	-2.55*	AUT	-3.67***
SC2B	1.78	ORG	-2.61**
SC2C	0.01	HOS	-2.82**
SC3	-2.85**	HEA	-1.58
MA1	-3.72***	PSY	0.95
MA2	6.02***	FAM	0.96

Notes. (1) T scores for the MF and SI subscales are unavailable. Serkownek (1975) published only T-score equivalents on an unspecified group of normal individuals.

(2) * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 9

MMPI Subscales Which Differ From the General PopulationNorms

SCALE	T VALUE
<hr/>	
PHO	-0.89
HYP	0.26
TSC-I	0.68
TSC-II	-1.96*
TSC-III	-4.47***
TSC-IV	-1.73
TSC-V	-2.59**
TSC-VI	-0.51
TSC-VII	-1.75

Notes. (1) T scores for the MF and SI subscales are unavailable. Serkownek (1975) published only T-score equivalents on an unspecified group of normal individuals.

(2) * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Correlations Using the MMPI

Correlations among the demographic data and the 88 MMPI clinical and subscales and the individual questions of the SSS are reported in Table 10.

Table 10

Master Correlation Table

Correlations:	L	F	K	HS	D	HY	PD
Scale							
GPA	-.216	-.013	.011	.023	.013	-.033	-.048
AGE	.131	-.151	.176	-.051	-.137	-.003	-.164
CREDITS	-.027	-.050	-.017	.083	.188	.206	.144
OTHRSEM	-.219	-.055	-.279	.060	.000	-.056	.027
MARIT	-.056	-.048	-.234	.308*	-.074	.105	-.006
CHURATT	.157	-.043	.094	-.002	-.079	-.025	-.037
PERSDEV	.319*	-.093	.170	.070	-.051	.122	-.173
FAMDEV	.140	-.182	-.033	.120	-.131	.016	-.117
DURPERS	.115	.014	.013	.173	.000	.187	-.042
DURFAM	.085	-.068	-.054	.128	-.209	.027	-.132
YRSLDR	.050	-.248	-.009	.037	-.152	.150	-.202
CAPICT	-.195	-.072	.173	.008	.131	.180	-.030
IMPORT	.004	.102	-.339*	.210	-.004	-.171	.074
FINANC	.014	-.074	.168	-.039	.067	-.070	-.042
SOCA	.081	.006	-.123	-.051	-.106	-.123	-.193
SOCB	.203	-.452***	.234	-.189	-.064	.287	-.129
SOCC	.103	-.268	.136	-.206	-.220	.060	-.288*
SPOUSEA	-.206	-.026	-.101	.064	.048	-.241	-.083
SPOUSEB	-.287*	-.041	-.148	-.046	-.067	-.223	-.069
SSS	-.248	.613***	-.195	.500***	.328*	.089	.513***
NEWSSS	-.270*	.600***	-.189	.470**	.371	.066	.506***
SENTCOMP	-.270*	.276*	-.198	.022	.017	-.134	.177
SAS	-.412**	.440***	-.557***	.351**	.276*	-.190	.381**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)
 Master Correlation Table

Correlations:	MF	PA	PT	SC	MA	SI	FK
Scale							
GPA	.161	.087	.052	.009	-.002	-.100	-.014
AGE	-.132	.009	-.350**	-.384**	-.143	-.151	-.200
CREDITS	.090	.094	.100	-.030	.109	-.029	-.012
OTHRSEM	.137	-.282*	.125	.127	.099	.051	.173
MARIT	.098	-.022	.115	.101	.280*	-.019	.144
CHURATT	-.118	-.104	-.092	-.134	-.053	-.168	-.088
PERSDEV	-.287*	-.221	-.217	-.133	-.006	-.191	-.167
FAMDEV	.105	.122	.066	.024	.206	-.113	-.065
DURPERS	.036	.181	.081	.087	.166	-.091	-.002
DURFAM	.124	-.010	-.033	-.092	.246	-.100	.004
YRSLDR	-.143	.084	-.219	-.215	.024	-.087	-.116
CAPICT	-.076	-.012	-.049	-.128	-.037	-.162	-.159
IMPORT	.093	-.021	.250	.212	.020	.416**	.293*
FINANC	-.123	.079	-.169	-.172	-.273	.050	-.157
SOCA	.049	-.207	-.116	-.121	.006	.091	.091
SOCB	-.160	-.034	-.400**	-.372**	.161	-.542***	-.391**
SOC	-.092	-.057	-.177	-.129	-.047	-.183	-.230
SPOUSEA	-.162	-.217	-.102	-.155	-.400**	.184	.057
SPOUSEB	-.205	-.234	-.044	.027	-.087	.034	.082
SSS	.182	.269	.446**	.420**	-.065	.355*	.454**
NEWS	.183	.272*	.465**	.400**	-.114	.404**	.444**
SENTCOMP	.205	-.007	.316*	.349*	-.040	.336*	.277*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	A	R	MAS	ES	LB	CA	DY
Scale							
GPA	-.031	-.048	.088	.118	-.165	.070	.110
AGE	-.331*	.018	-.275*	.247*	.161	-.343*	-.324*
CREDITS	.103	-.044	.162	-.063	.049	.003	.043
OTHRSEM	.142	-.165	.114	-.173	.036	.142	.151
MARIT	.156	-.343*	.089	-.289*	-.058	.153	.053
CHURATT	-.058	-.077	.011	.097	-.062	-.214	-.105
PERSDEV	-.271*	.084	-.250	.090	.022	-.242	-.307*
FAMDEV	.090	-.192	.081	-.210	.004	.058	-.031
DURPERS	.043	-.089	.080	.047	-.104	-.052	-.043
DURFAM	-.030	-.159	-.000	-.042	-.105	.076	-.112
YRSLDR	-.192	.063	-.114	.221	.287*	-.242	-.226
CAPICT	-.066	.005	.071	.060	.159	-.010	.079
IMPORT	.244	.087	.254	-.224	-.185	.296*	.263*
FINANC	-.120	.055	-.178	.199	.148	-.221	-.198
SOCA	-.024	-.155	-.139	.198	-.081	-.072	-.005
SOCB	-.336*	-.048	-.232	.418**	.184	-.452***	-.389**
SOCC	-.132	.171	-.108	.206	.243	-.126	-.187
SPOUSEA	-.016	-.067	-.079	-.040	-.092	.012	.010
SPOUSEB	.052	-.222	-.112	.071	-.014	-.089	-.070
SSS	.367*	.059	.389**	-.381*	-.177	.441**	.381*
NEWSSS	.393**	.066	.398**	-.338*	-.213	.438**	.415**
SENTCOMP	.422**	-.004	.258	-.200	-.194	.396**	.440***
SAS	.663***	-.136	.535***	-.378**	-.315*	.700***	.626***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	DO	RE	PR	ST	CN	AL	OH
Scale							
GPA	.131	-.124	.069	.181	.085	-.128	.005
AGE	.246	.080	-.321	.186	-.084	.147	.033
CREDITS	.211	.069	-.215	.047	.244	-.183	-.145
OTHRSEM	-.076	.013	.286*	-.103	.182	-.022	-.182
MARIT	-.066	-.016	-.050	.161	.219	.184	-.100
CHURATT	.154	.164	-.013	.077	.016	-.009	.040
PERSDEV	.150	.157	-.034	.188	-.292*	.059	.107
FAMDEV	-.017	.042	-.160	.061	.028	.187	.054
DURPERS	.083	.001	-.064	.108	-.058	.102	.042
DURFAM	.031	-.050	-.070	.066	.167	.352**	.117
YRSLDR	.202	.195	-.285*	.142	.009	.110	.053
CAPICT	.159	-.002	.049	.151	.119	-.053	.143
IMPORT	-.259*	-.132	.242	-.204	.291*	-.016	-.264*
FINANC	.088	.041	-.141	.074	-.019	.035	-.029
SOCA	-.025	-.046	.002	.307*	.108	.154	-.144
SOCB	.451***	.290	-.402**	.307*	-.242	-.023	-.009
SOC	.026	.165	-.095	.086	-.171	-.068	.155
SPOUSEA	-.254	-.001	.014	-.068	.084	-.075	-.268*
SPOUSEB	-.088	.007	.053	.149	.134	.016	-.309*
SSS	-.012	-.321*	.431**	-.442**	.330*	.006	-.120
NEWSSS	-.024	-.276*	.404**	-.456**	.328*	-.084	-.155
SENTCOMP	-.298*	-.191	.371**	-.333*	.224	-.092	-.135
SAS	-.376**	-.350**	.411**	-.495***	.477***	-.131	-.329*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)
Master Correlation Table

Correlations:	D1	D2	D3	D4	D5	HY1	HY2
Scale							
GPA	.102	-.174	-.102	.045	-.002	.070	-.070
AGE	-.220	-.174	.107	-.278*	-.025	.154	.064
CREDITS	.170	.049	.189	.184	.164	.114	.049
OTHRSEM	-.146	.002	.052	.015	.130	-.007	-.301*
MARIT	-.069	-.059	.340*	.029	-.046	.016	-.150
CHURATT	-.150	.020	.030	-.032	-.005	.118	.003
PERSDEV	-.280*	.201	-.018	.053	-.369**	.171	.106
FAMDEV	-.146	-.085	.228	-.072	-.088	.078	-.015
DURPERS	-.114	.128	.004	.011	.059	.093	.147
DURFAM	-.223	-.166	.159	-.149	-.086	.047	.062
YRSLDR	-.151	-.136	.015	-.162	.040	.062	.219
CAPICT	.016	.156	.057	.099	.111	.238	.125
IMPORT	.088	-.034	.095	.124	.087	-.287*	-.279*
FINANC	-.005	.010	-.014	-.111	-.125	.043	.158
SOCA	-.138	-.051	-.052	-.063	-.056	-.044	-.056
SOCB	-.258*	.062	.072	-.150	-.055	.475***	.379**
SOC	-.229	-.012	-.271*	-.010	-.209	.241	.172
SPOUSEA	.036	.131	.001	-.192	.017	-.339*	-.117
SPOUSEB	.016	-.111	.105	-.057	.051	-.012	-.234
SSS	.463**	.214	.192	.321*	.364*	-.419**	-.358*
NEWS	.492***	.271*	.157	.320*	.397**	-.462**	-.331*
SENTCOMP	.186	.155	-.154	.066	.176	-.166	-.197
SAS	.508***	-.130	.157	.307*	.566***	-.523***	-.462***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)
Master Correlation Table

Correlations:	HY3	HY4	HY5	PD1	PD2	PD3	PD4
Scale							
GPA	-.002	-.012	.132	-.133	-.077	.157	-.091
AGE	-.108	-.101	-.018	-.163	.128	.161	-.271*
CREDITS	.250	.009	-.013	.060	.099	.138	.113
OTHRSEM	.059	.134	.092	.098	-.206	-.205	-.038
MARIT	.191	.258	-.098	.105	.080	.037	.047
CHURATT	-.077	.043	-.082	.001	-.099	.182	.007
PERSDEV	-.176	.067	.198	-.074	.024	.066	-.143
FAMDEV	-.047	.002	.074	.030	.064	.072	.025
DURPERS	-.156	.184	.141	.106	.089	.070	-.076
DURFAM	-.091	.100	-.013	.109	.089	.000	.022
YRSLDR	-.060	.062	.034	-.060	.113	.041	-.260*
CAPICT	.125	-.086	.074	-.145	-.296	.163	-.207
IMPORT	.125	.228	-.041	.180	.153	-.244	.151
FINANC	-.080	-.117	-.191	-.001	.129	.288*	-.035
SOCA	-.101	-.017	-.016	.030	.121	.098	-.048
SOCB	-.225	-.140	.165	-.098	-.109	.403**	-.188
SOCC	-.281*	-.100	.243	-.109	.010	.093	-.325*
SPOUSEA	.048	.020	-.288*	-.031	-.104	-.294*	-.215
SPOUSEB	.091	-.118	-.189	.051	-.121	.083	-.107
SSS	.411**	.426**	-.012	.304*	.307*	-.403**	.180
NEWSSS	.395**	.408**	-.052	.306*	.258	-.429**	.217
SENTCOMP	.203	.023	-.050	.361**	-.220	-.079	.127
SAS	.409**	.310*	-.175	.411**	.199	-.381**	.575***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	PD4B	PA1	PA2	PA3	SC1A	SC1B	SC2A
Scale							
GPA	-.168	-.043	.103	.009	.004	.061	-.028
AGE	-.181	-.169	.050	.080	-.324*	-.174	-.219
CREDITS	.088	-.101	.062	.108	.063	.013	.005
OTHRSEM	.110	.037	-.210	-.278*	-.041	-.225	.055
MARIT	.045	.192	.110	-.120	-.053	-.140	.148
CHURATT	.019	-.033	-.101	-.047	-.153	-.170	-.076
PERSDEV	-.257*	-.104	-.035	-.208	-.220	.041	.052
FAMDEV	-.118	.084	.153	.057	-.054	.106	.091
DURPERS	-.107	.147	.191	.062	-.045	.089	.150
DURFAM	-.024	.148	.019	-.012	-.046	-.130	-.073
YRSLDR	-.132	.013	-.021	.123	-.252	-.134	-.162
CAPICT	-.110	-.080	.046	-.026	-.190	-.004	-.286*
IMPORT	.087	.027	.110	-.163	.156	.113	.124
FINANC	-.156	-.093	.108	.068	-.110	.103	.108
SOCA	-.194	.029	-.003	-.346*	-.120	-.056	-.057
SOCB	-.203	-.215	-.208	.174	-.548***	-.011	-.367**
SOC	-.404**	-.079	-.165	.102	-.148	.141	-.037
SPOUSEA	.010	-.316*	-.196	.089	-.081	-.359*	-.213
SPOUSEB	-.014	-.209	-.106	-.055	.052	-.020	.104
SSS	.403**	.275*	.366*	-.071	.447**	-.209	.286*
NEWSSS	.410**	.283*	.375*	-.070	.446**	-.177	.280*
SENTCOMP	.186	.142	.198	-.194	.375**	.206	.185
SAS	.484***	.421**	.269*	-.248	.520***	.123	.409**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	SC2B	SC2C	SC3	MA1	MA2	MA3	MA4	SI1
Scale								
GPA	.068	-.036	-.097	-.138	-.071	.076	.128	-.138
AGE	-.285*	-.306*	-.206	-.069	-.263*	.271*	-.125	-.191
CREDITS	.004	-.047	-.241	-.015	.050	.156	.011	-.104
OTHRSEM	-.127	.243	.227	.144	.129	-.113	.052	.071
MARIT	-.022	.121	.276*	.058	.302*	.135	-.040	-.000
CHURATT	.025	-.136	-.062	-.150	.034	.123	-.116	-.121
PERSDEV	.128	-.047	.041	-.106	.090	.040	-.013	-.201
FAMDEV	.004	.134	.211	-.053	.181	.193	-.080	-.076
DURPERS	.135	.067	.199	-.001	.166	.177	.146	-.020
DURFAM	-.172	-.104	.154	-.003	.178	.161	.021	-.077
YRSLDR	-.217	-.090	.026	.015	-.083	.066	.005	-.094
CAPICT	-.206	.009	-.063	-.167	.007	.147	-.261	-.259*
IMPORT	.081	.195	.206	-.102	.207	-.367**	.132	.327*
FINANC	.189	-.438***	-.297*	-.257	-.327*	.232	-.097	-.072
SOCA	.031	-.198	-.105	-.041	.001	.058	.189	-.050
SOCB	-.295*	-.133	-.109	.184	.018	.343*	-.061	-.502***
SOCC	.125	-.036	-.144	-.119	-.093	.003	.058	-.206
SPOUSEA	-.063	-.133	-.069	-.123	-.208	-.255	-.271*	.286*
SPOUSEB	.130	-.060	-.119	-.014	-.087	-.202	.175	.080
SSS	.233	.209	.219	.101	.142	-.287*	-.009	.467*
NEWSSS	.243	.184	.162	.097	.124	-.312*	-.035	.524***
SENTCOMP	.093	.130	.037	-.265*	.086	-.115	.113	.283*
SAS	.375**	.264*	.206	.103	.201	-.369**	.246	.656***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)
Master Correlation Table

Correlations:	SI2	SI3	SI4	SI5	SI6	MF1	MF2
Scale							
GPA	-.108	-.124	.061	-.080	-.144	.086	-.251
AGE	-.014	.106	-.005	-.194	-.290*	-.204	.111
CREDITS	.087	.124	-.067	-.079	-.026	.029	.077
OTHRSEM	.171	-.096	.378**	.287*	-.161	.096	.304*
MARIT	.092	-.033	.094	.165	.037	.142	.182
CHURATT	-.324*	-.014	.027	.007	-.259	-.049	-.100
PERSDEV	-.130	.035	-.099	.019	-.248	-.196	-.079
FAMDEV	.117	-.125	.048	.057	-.075	.129	.189
DURPERS	-.105	-.243	-.025	.042	-.030	.005	-.043
DURFAM	.109	-.044	-.034	-.092	-.071	-.029	.059
YRSLDR	-.091	.083	-.004	-.094	-.170	-.147	.042
CAPICT	-.158	.076	.027	-.058	-.116	.008	-.051
IMPORT	.303*	.335*	.044	.268*	.167	.162	-.071
FINANC	-.158	.348**	-.174	-.093	-.027	-.243	-.379**
SOCA	.366**	.128	.140	.064	.050	.084	.033
SOCB	-.293*	-.217	-.089	-.211	-.449***	-.190	-.041
SOC	.109	-.020	-.041	-.005	-.196	-.036	-.299*
SPOUSEA	.009	.172	.049	-.018	-.183	-.162	-.014
SPOUSEB	-.088	.026	.094	.086	-.036	-.111	.036
SSS	-.037	.047	.315*	.144	.222	.264*	-.011
NEWSSS	-.030	.058	.314*	.135	.264*	.299*	.031
SENTCOMP	.218	.093	.098	.281*	.305*	.207	.023
SAS	.299*	.028	.475***	.252	.461***	.710***	.125

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	MF3	MF4	MF5	MF6	SOC	DEP	FEM
Scale							
GPA	.189	-.064	.029	.074	-.073	-.045	.180
AGE	-.317*	.274	.089	.002	-.221	-.242	-.211
CREDITS	-.120	.056	.109	.165	-.051	.227	.037
OTHRSEM	-.085	-.081	-.168	-.210	.034	.141	.119
MARIT	-.360**	-.123	.093	-.179	-.090	.165	.094
CHURATT	.193	.049	-.195	.013	-.342*	.004	-.046
PERSDEV	.050	.076	.063	-.039	-.208	-.306*	-.114
FAMDEV	-.271*	-.032	.102	-.137	-.199	.117	.126
DURPERS	.016	.140	.127	.003	-.152	.032	.064
DURFAM	-.195	-.117	.259	-.044	-.094	-.038	.036
YRSLDR	-.158	.189	.032	.164	-.115	-.144	-.276*
CAPICT	-.066	-.166	-.026	.007	-.153	.003	-.044
IMPORT	.215	.104	-.033	-.020	.385**	.143	.117
FINANC	-.007	.033	.178	.280	-.027	-.143	-.151
SOCA	-.007	-.105	.289*	-.124	.131	.064	-.006
SOCB	-.037	.341*	.074	.099	-.592***	-.279*	-.199
SOC	.138	-.073	.095	.208	-.025	-.221	-.012
SPOUSEA	-.080	.019	-.188	-.117	.204	-.119	-.077
SPOUSEB	-.269*	-.178	.017	-.313*	-.012	-.090	-.059
SSS	.192	-.016	-.239	.008	.362*	.434**	-.031
NEWS	.204	-.056	-.241	.007	.384**	.471**	-.030
SENTCOMP	.239	-.211	.071	-.146	.345*	.290*	.283*
SAS	.011	-.248	.026	-.122	.494***	.734***	-.022

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)
Master Correlation Table

Correlations:	MOR	REL	AUT	PSY	ORG	FAN	HOS
Scale							
GPA	.127	.187	.027	.070	-.019	.033	.248
AGE	-.295*	-.138	-.275*	-.271*	-.160	-.232	-.205
CREDITS	.035	.046	-.113	.012	-.030	.122	.042
OTHRSEM	.150	.053	.276*	.240	.093	.071	.231
MARIT	.095	-.170	.133	.263*	.297*	.087	.110
CHURATT	-.022	.194	-.071	.051	-.014	.018	-.049
PERSDEV	-.242	.295*	.009	.019	.017	-.094	-.158
FAMDEV	.042	-.226	-.048	.191	.126	-.012	-.043
DURPERS	.048	.012	-.100	.199	.247	.032	.063
DURFAM	-.025	-.205	.009	.141	.110	.203	-.053
YRSLDR	-.251	-.162	-.133	-.106	-.033	-.141	-.169
CAPICT	.045	.128	-.063	-.165	-.100	-.022	-.111
IMPORT	.268*	.087	.245	.207	.270*	.200	.154
FINANC	-.199	-.143	-.227	-.115	-.244	-.206	-.140
SOCA	-.136	.045	.182	.090	-.053	-.026	.122
SOCB	-.230	.265*	-.338*	-.256	-.176	-.088	-.258
SOC	-.139	-.173	.018	-.025	-.168	-.114	-.138
SPOUSEA	-.129	-.068	-.028	-.202	-.101	-.112	-.164
SPOUSEB	-.141	-.008	.095	-.076	-.119	-.007	.012
SSS	.363*	-.070	.251	.281*	.437**	.266*	.302*
NEWS	.368*	-.061	.206	.255	.416**	.223	.306*
SENTCOMP	.359**	.040	.135	.102	.101	.267	.237
SAS	.592***	-.224	.382**	.454***	.399**	.330*	.568***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	PHO	HYP	HEA	TSC1	TSC2	TSC3	TSC4
Scale							
GPA	.117	-.030	.126	.009	.056	.005	.069
AGE	-.276*	-.055	-.158	-.089	-.119	-.312*	-.342*
CREDITS	-.103	.071	.106	-.105	.073	.008	.168
OTHRSEM	.195	.131	.089	-.107	.069	.214	.198
MARIT	.019	.229	.180	-.110	.288*	.241	.104
CHURATT	-.210	.204	-.029	-.327*	-.015	-.003	-.159
PERSDEV	-.257	.014	-.017	-.292*	-.006	-.026	-.308*
FAMDEV	.076	.149	.049	-.136	.092	.114	.004
DURPERS	.009	.131	.181	-.137	.143	-.028	.004
DURFAM	-.049	.303*	.146	-.101	.111	.072	-.116
YRSLDR	-.146	.005	-.225	-.122	-.062	-.193	-.258
CAPICT	.075	-.006	-.019	-.221	.007	-.169	.022
IMPORT	.144	.215	.203	.300*	.227	.185	.259
FINANC	-.281*	-.271*	.068	-.101	-.046	-.051	-.179
SOCA	-.121	.110	-.002	.048	-.028	.071	-.036
SOCB	-.320*	.025	-.322*	-.550***	-.241	-.311*	-.326*
SOC	.008	-.164	-.290*	-.151	-.179	-.138	-.120
SPOUSEA	.091	-.052	.035	.236	.106	-.057	-.068
SPOUSEB	.024	-.016	-.053	-.024	.003	.027	.005
SSS	.418**	.112	.374*	.408**	.514***	.192	.336*
NEWS	.413**	.104	.363*	.455**	.499***	.173	.352*
SENTCOMP	.298*	.024	.165	.245	.130	.153	.443***
SAS	.541***	.253	.424**	.620***	.398**	.468***	.617***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	TSC5	TSC	TSC	QUEST1	QUEST2	QUEST3	QUEST4
Scale							
GPA	.097	.036	.054	.478**	-.061	-.247	-.117
AGE	-.224	-.275*	-.340*	-.116	.063	.108	.058
CREDITS	.016	.069	.161	-.007	.008	.051	.023
OTHRSEM	.156	.203	.199	.134	-.068	-.013	.065
MARIT	.088	.259	.058	.016	-.225	-.022	-.039
CHURATT	-.049	-.032	-.010	-.040	.285*	.065	.299*
PERSDEV	-.314*	-.185	-.323*	-.065	.143	.016	.101
FAMDEV	-.037	.096	.061	-.059	-.228	-.137	-.066
DURPERS	.002	.095	-.047	.126	.061	.085	.187
DURFAM	-.102	.041	-.036	.040	-.080	-.065	-.046
YRSLDR	-.205	-.094	-.127	-.022	-.061	-.014	-.060
CAPICT	-.093	-.047	.080	.208	-.155	-.234	-.154
IMPORT	.243	.185	.160	-.006	-.093	.085	-.104
FINANC	-.169	-.103	-.305*	-.067	.131	.168	-.061
SOCA	-.002	-.056	-.097	-.062	.170	.050	.052
SOCB	-.358**	-.269*	-.198	.151	-.206	-.312*	-.101
SOCC	-.268*	-.074	-.038	.282*	-.274*	-.310*	-.064
SPOUSEA	.043	-.196	-.164	-.280*	.026	.405*	.266*
SPOUSEB	.090	.069	-.182	.055	-.109	.272*	.023
SSS	.422**	.385**	.317*	-.080	.547***	.483***	.504***
NEWSSS	.435**	.339*	.322*	-.194	.577***	.549***	.476*
SENTCOMP	.397**	.403**	.167	.165	.094	.185	.026
SAS	.628***	.474***	.568***	-.248*	.316*	.452**	.020

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	QUEST5	QUEST6	QUEST7	QUEST8	QUEST9	QUEST10	QUEST11
Scale							
GPA	-.010	-.059	.257*	.095	.266*	-.125	.044
AGE	-.157	-.079	.075	-.055	.150	-.013	.028
CREDITS	.016	-.139	.060	.137	-.184	.024	-.052
OTHRSEM	.031	-.119	.404**	.264*	-.037	.014	.100
MARIT	-.282*	.054	.078	-.034	-.033	-.127	.090
CHURATT	.282*	-.047	-.219	-.045	-.056	.053	-.113
PERSDEV	.375*	-.141	-.174	-.063	-.086	.190	-.252
FAMDEV	-.164	.015	-.135	-.209	-.150	-.256	.052
DURPERS	.087	-.159	.014	.372*	.002	.230	-.215
DURFAM	-.251	.095	.018	-.070	-.037	-.319*	-.236
YRSLDR	-.105	-.078	.117	.007	-.109	-.029	-.116
CAPICT	-.089	.127	.098	-.014	.121	-.327*	.040
IMPORT	.121	.234	.090	.149	.060	.133	-.094
FINANC	.097	-.059	-.127	-.014	.108	.105	.166
SOCA	.007	-.026	.206	.004	.018	.060	-.301*
SOCB	.015	-.225	-.176	-.198	-.216	-.382*	-.127
SOCC	.139	-.419**	.100	-.101	-.353*	-.085	-.314*
SPOUSEA	-.211	.142	.108	-.049	.313*	.378*	.098
SPOUSEB	-.443*	.024	0.0	-.184	.154	.226	-.305*
SSS	.449**	.391**	.284*	.556***	.547***	.668***	.406**
NEWSSS	.403**	.431**	.184	.577***	.473**	.691***	.408**
SENTCOMP	-.093	.161	.034	.247	.214	.010	.163
SAS	-.055	.437**	.109	.417**	.093	.295*	.274*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	QUEST12	QUEST13	QUEST14	QUEST15	QUEST16	QUEST17	QUEST18
Scale							
GPA	.186	.032	.032	.147	.069	-.192	-.065
AGE	-.022	.192	-.145	-.117	.083	.139	.012
CREDITS	-.069	.297*	-.008	-.021	.063	.081	.102
OTHRSEM	0.0	.156	-.111	-.190	-.249	-.094	-.146
MARIT	.069	.054	-.063	-.337*	-.145	-.003	.006
CHURATT	.036	.335*	.062	.015	.166	.347*	.165
PERSDEV	.085	.156	-.155	.083	-.196	.067	.175
FAMDEV	-.034	-.191	-.141	-.368*	-.187	-.095	-.141
DURPERS	.050	.176	-.280*	.107	-.088	.059	-.046
DURFAM	-.017	-.147	-.156	-.236	-.117	.021	-.118
YRSLDR	-.080	.172	-.079	-.148	.226	.164	.092
CAPICT	.019	-.182	-.074	-.144	.123	.016	-.030
IMPORT	.202	.161	.196	.122	.124	.107	.003
FINANC	.117	.403**	-.020	-.056	-.069	.223	.232
SOCA	-.122	.134	-.306*	.056	-.188	.260	-.024
SOCB	-.271*	-.021	-.346*	-.142	-.117	-.076	.080
SOC	.054	.017	-.122	-.272*	-.138	-.367*	-.198
SPOUSEA	.163	.339*	.199	.233	.085	.255	.187
SPOUSEB	.084	.076	.186	.211	.124	.048	-.049
SSS	.680***	.578***	.476**	.565***	.627***	.432**	.545***
NEWSSS	.669***	.548***	.451**	.599***	.612***	.481***	.558***
SENTCOMP	.253	.012	.160	-.001	.001	.001	-.210
SAS	.344*	.262	.216	.312*	.280*	.330*	.071

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10 (Continued)

Master Correlation Table

Correlations:	QUEST19	QUEST20	QUEST21	QUEST22	QUEST23	QUEST24	QUEST25
Scale							
GPA	-.023	-.031	.000	.179	.142	.049	.215
AGE	.096	.280*	.149	-.156	-.198	-.148	.021
CREDITS	-.042	-.008	.093	-.023	-.009	-.098	.205
OTHRSEM	-.019	-.092	.094	.156	-.018	-.129	-.109
MARIT	.171	-.026	.135	-.303*	-.029	.046	-.207
CHURATT	.017	.326*	-.319*	.045	.017	0.0	.095
PERSDEV	.148	.009	-.091	-.002	-.357*	-.034	.057
FAMDEV	-.046	0.0	.039	-.397**	-.211	.038	-.319*
DURPERS	.079	-.080	.177	.024	-.077	.020	-.023
DURFAM	.037	-.137	.174	-.208	-.262*	-.088	-.421**
YRSLDR	-.006	.181	.083	-.146	-.142	-.007	-.092
CAPICT	-.223	-.070	.102	.074	.120	-.059	-.086
IMPORT	-.146	.087	-.279*	.102	.079	.122	.132
FINANC	.013	.216	-.141	-.089	.034	.041	.067
SOCA	.052	-.152	-.046	.053	-.186	-.001	-.128
SOCB	-.078	.029	-.335*	-.221	-.397**	-.329*	-.096
SOCC	-.130	-.323*	-.119	-.157	-.481***	.035	-.151
SPOUSEA	.207	.101	-.159	.142	.077	.021	.097
SPOUSEB	.041	-.156	.086	-.046	-.055	.148	-.091
SSS	.465**	.253	.439**	.562***	.711***	.542***	.563***
NEWSSS	.497***	.232	.449**	.618***	.714***	.533***	.597***
SENTCOMP	-.154	-.155	.211	.221	.303*	.046	.058
SAS	.097	-.014	.437**	.456**	.464**	.265*	.324*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Very clearly several scales from the special scales and demographics have both greater and more numerous correlations with the various MMPI scales.

SCS

The SCS correlated at the $p \leq .05$ level with 24 of the 88 MMPI scales. The SC, A, CA, PR, PD1, SC1A, MOR, TSC-V, and TSC-VI are significant at the $p=.01$ level. Only the TSC-IV and DY are significant at the $p=.001$ level. Synthesizing the content of the significant scales listed above results in a subjective theme of social alienation or maladjustment.

SSS

The SSS correlated at the $p \leq .05$ level with 44 of the 88 MMPI scales. The SSS is correlated with TSC-II, S11, PD, HS, and F at the $p=.001$ level. It is significant at the $p=.01$ level with TSC-VI, TSC-V, TSC-I, PHO, ORG, DEP, SC1A, PD4B, PD3, HY4, HY3, HY1, D1, ST, PR, CA, MAS, F-K, SC, and PT. A subjective analysis of the significant scales listed above results in a theme of social ostracism or ineptness.

The revised SSS called NEWSSS was correlated with all the variables in the study. The variables RE and PD2 lost significance, similarly TSC-VI went from $p=.01$

to $p=.05$. The variables SI, A, and SOC went from $p=.05$ to $p=.01$. The variables PT, D1, D5, and DEP went from $p=.01$ to $p=.001$ and MF1 and MA3 gained significance at the $p=.05$ level. Overall, recalculating the SSS resulted in a small increase in it's predictive power.

SAS

The the SAS was significant at the $p < .05$ level with 58 of the 88 MMPI scales. The $p < .001$ scales are F, K, PT, SC, SI, F-K, A, MAS, CA, DY, ST, CN, D1, D5, HY1, HY2, PD4A, PD4B, PA1, SC1A, SI1, SI4, SI6, MF1, SOC, DEP, MOR, PSY, HOS, PHO, HEA, TSC-I, TSC-III through TSC-VII. Since the SAS scale is a subset of the MMPI, it is impossible to analyze for themes other than what the scale was designed for, specifically, seminary attrition. The question addressed here is the part-whole relationship. In this case since the SAS is part of the MMPI it is to be expected that it would be correlated with many of the scales due to overlap.

Of the demographics scales, the most numerously correlated with MMPI scales at $p \leq .05$ are Age with 26 scales, Personal Devotion with 21 scales, Soc B (enjoying being with people) with 33, and Importance of Religion with 16 scales.

Age.

PT and SC, are significant at the $p=.01$ level, another 24 variables, significant at $p=.05$, are recorded in Table 10. A theme associated with the significant scales is one of general mental health.

Personal devotions.

Personal devotions correlates with D5 at the $p=.01$ level. Another 20 variables are significant at $p=.05$ and are recorded in Table 10. A subjective theme of the significant scales is one of general optimism or happiness.

SOC-B.

Soc-B is significant at the $p=.001$ level with F, SI, CA, DO, HY1, SC1A, SI1, SOC, and TSC-I. Soc-B is significant at the $p=.01$ level with PT, SC, F-K, ES, DY, PR, HY2, PD3, SC2A, and TSC-V. A synthesis of the above significant scales suggests a general theme of leadership ability.

Others.

Also important are the scales which have very low or no significant correlations with the MMPI scales. GPA is the most important of these since it has no significant correlations with any scale on the MMPI,

yet it is the most significantly correlated scale with professor rating of students. Number of Credits and Duration of Personal Devotions also have no significant correlations with the MMPI.

Another factor of importance is the number of chance significant correlations. Simply taking five percent of the 88 MMPI scales results in over 4 chance significant results. The effect of this can be minimized by moving more towards the $p \geq .01$.

Summary

The statistical analysis of the data produced several interesting results. The norms and descriptive statistics are presented for WCBS. Foremost in importance are the significant findings on the test scales. The SCS was correlated with 24 of the MMPI scales. Likewise the SSS was correlated with 44 of the MMPI scales. The SAS was correlated with 58 of the MMPI scales and the SOC-B question with 39 of the scales. Other interesting findings are that age and personal devotions are highly correlated with the MMPI and that GPA, number of credits and duration of personal devotions have no significant correlations with the MMPI.

Several different norm groups were compared with the WCBS sample. In general the WCBS sample is more defensive and androgenous than general populations and less defensive than the Dallas Seminary sample.

CHAPTER IV

DISCUSSION

Overview of the Discussion

This section evaluates, and interprets the results. The first section deals with the validation group. The second section is a discussion of the norm group's MMPI, research and demographic scales. This section also includes a discussion of the themes that emerged in the significant MMPI scales and a discussion of the theological implications of the study.

Validation Group

Table 1 details the significant differences between the professor selected adjusted and maladjusted groups. A total of four scales were significant, GPA, D4, St and Age. It was noted that two of the four scales were associated with mental acuity.

Even with specific instructions about how to select students, professors were strongly influenced by the student's academic factors. Clearly, one interpretation of this is their orientation to the academic world; why else be a professor? It is easy to

understand that academic success is how professors tend to judge people.

Also, the students themselves seem to have adopted the position that academic accomplishment establishes their social status. This is substantiated by the significant difference between the adjusted and the maladjusted groups on ST from the MMPI. Some of these same students will eventually replace the professors who rated them. Then the cycle will continue.

Norm Group

The norm sample is comprised of 55 randomly sampled seminarians from Western Conservative Baptist Seminary. This represents 91.6% of the original random sample of 60. Because of the high response rate the results can be generalized to the male M. Div. population at WCBS. Generalizations to other students at WCBS and to students in other seminaries must be done with caution.

All participants were administered the same test package comprised of the MMPI, TSC, Demographics, Special Scales, and Spiritual Scales. Each of the packet components will be examined one at a time with the exception of the TSC scales, which are reported in

Powers, (1985), and the religious scales which are reported in Mueller, (1985, in preparation).

Discussion of Problems in Data Collection

Several unforeseen problems arose in the collection of the data from the sample. An unanticipated but significant problem was that of compliance. Although there were few outright refusals to participate, considerable resistance was encountered in obtaining both the initial agreement to participate and the actual follow through once the person agreed to participate. Approximately 50% of the sample required two or more calls or letters from the Dean of Students or the researchers before they finally picked up a test packet. Of these reluctant participants, over 60% required follow-up calls to encourage them to complete and return the test packets. The final outcome, even with repeated calls and letters from the Dean of Students and the researchers, was that five persons did not return the test materials until several months after the study was complete.

A clear linear relationship emerged. The more time which had elapsed from the initial testing sessions the more resistance was encountered in both picking up the test packet and returning the ones

already received. This may be accounted for in several ways. People who are reluctant in the initial response may also be reluctant to complete and return the materials, especially since much of the test packet could be considered threatening. Another possible explanation is that with the passage of time more of the resistant subjects were encountered and consequently more resistance was manifested.

From any perspective, a good deal of resistance was encountered collecting the data.

The Defensive Posture of the Norm Sample

The issue of the reluctance of the sample to participate also needs to be addressed. This problem is most clearly portrayed in the defensive posture existent in much of the norm group. This defensiveness is indicated by the resistance described above and the high L, K, and F-K scales of the MMPI. Several different interpretations can be made regarding this issue.

Defensiveness as an Attribute

First, from a positive perspective, educated people tend to score high on the K scale, (Graham, 1977, Duckworth, 1982). The typical T-score range for college graduates is 55 to 70. This sample had an

average T-score of 60. This is within the normal range for this population.

L scale elevation.

Another finding is the high L scale. Typically educated people tend to score lower on L. In fact, the typical score for people with some college education is zero to one. This sample's mean was 4.1 which is significantly above what would be expected. This elevation may come from the items that religious people would normally endorse since they may feel responsible to an omniscient God who monitors their behavior versus individuals responsible to their own conscience. The difference here may be in the motive behind denying quite obvious human traits. First, many Christians are taught that anger, swearing, bad thoughts and gossip must be avoided. This may be illustrated by the finding that only two participants responded affirmatively to item 135, a representative L scale item, "If I could get into a movie without paying and be sure that I was not seen I would probably do it." So without suggesting a universal motive, their denial of these items may be more a culturally learned phenomena than a crude personal defense used by an uneducated population.

Defensiveness as a Malady

From the more negative perspective, this sample is quite defensive and guarded. While it may be true that religious people are taught to avoid typical human failings, this sample is nonetheless much higher than either the Hathaway et al. (1957) or Colligan et al. (1983) norms on L, K and 6 (Pa).

F-K index.

Further evidence of defensiveness is found in the F-K score. This index is obtained by subtracting the raw K score from the raw F score. Webb and McNamara (found in Newmark, 1979) suggest that a score of +11 or greater indicates a "fake bad" and a score of -11 or less indicates a "fake good." Further, a score of -11 or less strongly suggests that a person is glossing over and minimizing problems in an attempt to "look good." Webb and McNamara (found in Newmark, 1979) suggest that the remainder of the profile should be interpreted with this response set in mind; it may be helpful to elevate mentally the profile scores above 50 by 5 to 10 T score points, while still maintaining the profile configuration.

This sample has a mean F-K score of -12, indicating a strong tendency toward defensiveness.

Comparison Between WCBS and DTS

For comparison purposes this sample was contrasted with the sample from Dallas Theological Seminary, (Parker, 1984). The Dallas population is required to take the MMPI as an admission prerequisite. It was found that for the Dallas sample the scales, L, K, and F-K were significantly higher than the WCBS sample. It appears that Dallas Seminary students are even more defensive than WCBS students.

MMPI Clinical Scales

The MMPI clinical scales were compared with several different norm groups. It is important to address the practical significance of the differences found between the various norms and this sample. Much of the variance is lost by using mean scores, especially on the MMPI. The significant scales are indicative of trends in this population, but it would be unfair to label all of this population with the descriptors associated with the scales.

Comparison with Mayo Norms

In this study the Mayo Norms (Swenson, et al., 1973) were selected for one comparison. It was reasoned that with an N size of 50,000 it was

representative of the general population. This is basically true; however, the sample was comprised of people entering one specific hospital, in a single geographic location over a period of several years. Therefore the comparisons are best interpreted cautiously. The results conflict with the other two general population norm groups, (with the exception of the 5 (Mf) scale). The WCBS sample is significantly lower on 1 (Hs), 2 (D) and 3 (Hy) and significantly higher on F and 9 (Ma). Basically this is a positive finding since it indicates less depression and somatization and a higher energy level are the norm for WCBS students.

Comparison With the Hathaway Norms

Another norm used was the original MMPI norm developed by Hathaway and McKinley in 1957. This produced results more consistent with other research reported in the introduction section. The WCBS sample is significantly higher on K, 3 (Hy), 4 (Pd), 5 (Mf) 6 (Pa) and 9 (Ma). This indicates that the students are more defensive, angry (or have more family problems) and distrusting of people than the general population. Also they may be more visible socially and have more energy. Moderately elevated 4 (Pd) scores are

consistent with prior findings, (Fehr, cited in Menges and Dittes, 1965). On the positive side since 5 (Mf) is elevated they are more altruistic, sensitive, (Cardwell, 1967) and educated, and aesthetic, (Webb and McNamara, found in Newmark, 1979).

Comparison With the Colligan Norms

The last set of general population norms used to compare with this sample was a set developed by Colligan et al. (1983). This norm appears to be significantly different from the original Hathaway norms. On the positive side, the Colligan norms are census matched, and age corrected. Thus they are most representative of the contemporary U.S. adult population. The results this comparison provides are also consistent with past research findings on seminary populations. Three scales are significantly higher L, K and 5 (Mf). As discussed previously, the L and K scales are expected to be high. The introduction deals at length with the 5 (Mf) scale and the expected elevation in this population. In summary, the differences between the WCBS sample and the Colligan norms are most consistent with the prior results reported in the literature review, (Strunk, 1959, Cardwell, 1967).

Overview of the Significant Clinical Scales

As expected, the MF scale is very elevated in comparison with all three norm samples. As discussed in the introduction, having a high MF is normal for an educated population. In this case seminarians are both educated and need the traits measured by this scale for effective ministry. Webb and McNamara, (found in Newmark, 1979) describes those traits as imaginative, introspective, idealistic, sensitive to interpersonal needs and being socially perceptive. Hence, it seems natural to find elevations significant at the $p=.001$ level across all norm groups.

The seminary norm group was also compared with the sample from Dallas Theological Seminary (DTS). Seven scales proved to be significantly different. Much of the difference stems from the more elevated K scale Dallas supplied since three of the elevated scales are K corrected. As a whole this study's norm sample is less defensive, (L and K) and more conventional in thinking (8 Sc) than DTS, yet more perfectionistic (7 Pt), energetic (9 Ma), and introverted (0 Si).

The Colligan and Hathaway norms show similar differences from the Western sample on the K and Mf scales. This is consistent with what would be expected

from the whole of past research on seminarians. Specifically that seminarians present themselves in a positive light and that they are less typically masculine than the general population.

MMPI Subscales

The other 74 scales of the MMPI were compared with the original norms supplied by the author of each individual scale. The significant scales are recorded in Table 3. A total of 31 were significant at the $p \leq .05$ level. The scales are combined thematically and reported in order of highest to lowest significant t score value.

Religiosity Theme

Religious Fundamentalism (REL), as would be expected, was most significant in a population of seminarians with a t of 13.2. Graham (1977) describes people with a high REL as individuals who present themselves as being very religious with fundamentalist beliefs and who attend church regularly. They believe their religion is the only true one and are intolerant of people whose religious beliefs are different. This sample was very consistent in their response on the REL. The REL consists of 12 questions. The mean for this sample was 11.74 with a standard deviation of 0.58.

Repression Theme

The second highest T score was R or repression. Duckworth (1982) describes this scale as conscious repression or suppression. People with high scores on this scale are described as having very little insight into their own personal problems and are quite resistant and unresponsive to psychological intervention.

Duckworth (1982) finds that males with a high R readily make concessions and sidestep trouble or disagreeable situations rather than face unpleasantness of any sort. This description is virtually identical to that of a high HY2. Scale R also has points in common with both elevated K and low Cn scores--two other results found significant in this study. An elevated K indicates a strong defensive posture exists to deny personal faults or weaknesses. These qualities may be adaptive in many contexts, but also make it difficult for the person to recognize and correct personal faults.

When considering the significance of the high R scale, viewing Cn is recommended by Graham (1977). Graham reports that people with a low Cn are described as conventional, moralistic and unlikely to explore or

experiment with their environment. Further they tend to have traditional religious beliefs and an unrealistic self-appraisal. The unrealistic self-appraisal is also supported by a high MA4. As a whole, in light of the above scales, this sample of seminarians appears to hold conventional values, to manifest unrealistic self-appraisal, to lack understanding of their own or other person's behaviors and to be quite adept at dismissing personal problems and insecurities. They may even go to the extreme of having such an unrealistic self-concept as to believe no problems exist.

Denial of Aggression Theme

The next most significantly elevated T score is O-H or Overcontrolled Hostility. It is followed closely by HY5, or Inhibition of Aggression. Megargee, Cook and Mendelson (1967) describe the O-H scale as measuring excessive inhibition against the expression of aggression in any form. The inability to express anger leads to a build up of frustration, which according to Megargee could eventually result in turning a very quiet, patient individual into a murderer. Typical attributes for an individual with a high HY5 are denial of hostile and aggressive impulses,

stating that they are not interested in reading about crime and violence, that they are sensitive about how others respond and saying they are decisive (Graham, 1977). The denial of aggression theme also runs through several other of the significant subscales. The scales TSC-III, Suspicion and Mistrust, TSC-V, Resentment and Aggression, HOS, Manifest Hostility, and on the Tennessee Self-Concept Scale (Powers, 1985), all add credence to this theme by consistency of the finding. All totaled, five scales directly suggest that denial of aggression is thematic for this population of seminarians.

The unwritten norm for most of evangelical Christianity is to rarely if ever acknowledge aggressive or hostile feelings and never to express them. This attitude appears to be acted out in this sample, and may well be taught either implicitly or explicitly from their future pulpits in an unconscious effort to promulgate the belief.

Generally people who deny aggression express their anger and hostility in an indirect fashion. It is postulated that this population expresses it by passive-aggressive means. This method can be accomplished by preaching condemning messages from the

pulpit, being late, resistant, procrastinating, or becoming entrenched in a viewpoint and cloaking their personal preferences with scripture verses. Another method of expressing their anger is angry outbursts or "blowing-up". This population is especially adept at this method since they have a remarkable ability to deny or repress personality flaws.

Further support for this concept is found in the social responsibility scale. This scale indicates a very strong commitment to societal or cultural norms and behaving in accordance to those norms. This describes the Christian expectations just covered.

Overall, this section's findings are closely related to the typical seminarian's well developed ability to repress and deny unacceptable personality traits--aggression seems to be one of their most strongly denied qualities.

Optimism Theme

Another theme, centering on general optimism and interest in people, is readily apparent by synthesizing the scale descriptors for scales DO, PR, DEP, AUT, HY1, PD3, MA1, TSC-III, DEP, HY1 and PD3 all of which are significant. The following descriptions come from Graham (1977).

Dominance.

High scores on D0, or Dominance, are described as poised and self-assured, optimistic, resourceful, realistic, perseverant and moralistic. In summary, a person scoring high on D0 is confident and optimistic about their abilities.

Prejudice.

The Prejudice (PR) scale if low means the individual is optimistic, intellectual, poised and self-confident. They tend to have a positive perception of the world and are effective in coping with their life situation.

Depression.

The Depression scale (DEP), when low, signifies an individual who is optimistic about the future, reports absence of worry, anxiety and depression, has a high sense of self-esteem and is satisfied with their life situation.

Authority conflict.

Individuals with a low AUT, Authority Conflict scale tend to have a trusting attitude toward the world and see other people as sensitive, honest and law-abiding. Being law abiding is especially important to

them as is their generally high level of honesty even when it costs them to be honest.

Denial of social anxiety.

A high Denial of Social Anxiety scale (HY1) indicates the individual is extroverted and comfortable with people, finding it easy to talk with others.

Social imperturbability.

When Social Imperturbability (PD3) is elevated it is indicative of an individual who enjoys interacting with other people and tends to be somewhat exhibitionistic.

Amorality.

Amorality (MA1) when low implies the individual denies that other people are selfish, dishonest or opportunistic and finds such qualities unacceptable in themselves.

Suspicion and mistrust.

Finally, the Suspicion and Mistrust scale (TSC-III), when low, is indicative of an individual who sees others in naively positive terms, feels understood, believes that people can be trusted and denies hostility and aggression.

In summary for this section on optimism, it is easy for this sample to see people in an unrealistic

light even to the point of having a "Pollyanna" like attitude.

Energetic Theme

Another trend or repeated descriptor on two or more significant scales is being tense, restless, high strung and risk taking as indicated by scales PA2, Poignancy, MA2, Psychomotor Acceleration and 9 (Ma). These findings seem consistent with normal graduate school populations. It requires a fairly high energy level to complete the academic and emotional rigors of seminary training.

Unclassifiable Results

Generally this sample has few somatic complaints, much energy, and good health as indicated by TSC-II, Body Symptoms and ORG, Organic Symptoms.

This sample also appears to be content with life circumstances and confident to face change since MOR, Poor Morale, SC1A, Social Alienation and SC1B, Emotional Alienation are all significantly low.

This group as a whole also reports few thought disorders or signs of psychosis as indicated by both SC2A, Lack of Ego Mastery and SC3, Bizarre Sensory Experiences being significantly lower than the general population norms.

The high FEM, Feminine Interests scale is predicted by the significant MF scale in this population. Descriptors for FEM are items like expressing interest in stereotypically feminine occupations, activities, life style and games while denying stereotypically the male ones. The stereotypic female attributes such as sympathy, empathy, and compassion are certain to be an advantage for pastors and missionaries, this may explain why this scale is elevated.

A scale of concern is the AL scale or MacAndrews Alcoholism scale since it is significantly elevated ($t=60$). This may indicate the propensity for this population to become drug or alcohol addicted. In the test result interview which many of the subjects scheduled, it was nearly universal that high scorers had used chemicals to excess at some time in their lives.

The last of the significant subscales is the ES or Ego Strength scale. This scale is closest to a general mental health scale of all the subscales. For this sample ES was significant with a t score of 57. This implies that they are generally very well adjusted,

responsible, confident and free of serious psychopathology.

Synthesis of Subscale Results

For this population it is to be expected that religiosity be high. Some of the other significant findings are not so expected. This group is described as having very little insight into their own personal problems and as quite resistant and unresponsive to psychological intervention. Further, they readily make concessions and sidestep trouble or disagreeable situations rather than face unpleasantness of any sort. This may be a positive quality if used for peacekeeping, however, this is a quality which is easily pushed into a pathology.

As a whole, this sample of seminarians appears to be very resistant to introspection and quite adept at dismissing personal problems and insecurities. They exhibit excessive inhibition against the expression of aggression in any form. All totaled, five scales directly suggest that denial of aggression is thematic. Support for this concept is also found in a very strong commitment to societal or cultural norms and behaving in accordance to those norms. Another finding is this sample's positive and possibly even naive regard for

people. The sample also has strong ego strength and is content with life although with a strong propensity toward alcoholism.

Positive projection

It is easy to see the positive value of the above traits for a minister or pastor. Having the ability to instill hope and optimism, and being comfortable with people seems to be fundamental for successful work in ministry. However, a strong indication of naivete toward human nature is also present. This may well stem from their own intrinsic denial of problems and the need for an intelligent person to be consistent between the internal beliefs and external realities. The phrase, cognitive dissonance, reflects much of this thought. A newly coined summary term, however, seems even more accurate. This term is positive projection, or attributing positive characteristics to others that one hopes, assumes or simply magically wishes to be present in themselves and humanity as a whole. It is easy to speculate that on the continuum of man being basically good and self-actualizing as one extreme, to man being basically evil and self-defeating on the other, that this norm sample would place itself solidly on the former side.

Another concern, or conjecture about the positive results, especially regarding having good environmental or life coping skills, is how much credence to actually place in the reality and/or functionality of their existence. Denial and repression are such firmly entrenched defenses in this sample that they may actually believe that they are coping well even with a myriad of contrary evidence surrounding them. Even if an occasional mistake is made such as "losing it" or "blowing up", their defenses can still protect by allowing troublesome memories and feelings of the event to be altered. Nearly everyone either knows or has heard of couples who loudly proclaim that "they haven't had a fight in 20 years." If one truly believes that problems do not exist in their lives it is very difficult to acknowledge skeletons in the closet, or in the case of most character disorders, the trail of emotionally damaged people behind them. Indeed, coping skills such as these may amount to simply denying any major problems exist, and hence also denying the necessity of having to cope with them.

SAS

The SAS correlated with 58 of the scales on the MMPI. This is expected since the SAS is part of the MMPI. It nonetheless has good predictive power for those who will drop out of seminary. Unfortunately, its practical use is limited as a screening device since it requires the entire 566 item MMPI be administered. Fortunately, the SSS is significantly correlated with the SAS and hence will serve as good substitute for the longer scale.

SSS

The SSS is an internally consistent instrument which is significantly correlated with 44 of the MMPI scales. It is very important that all the correlations are positive with the exception of HY1 and PD3. These two correlations, instead of being pathology positive are reversed in the direction of pathology. This means that the SSS is a good, consistent predictor of pathology as measured by the MMPI.

The SSS was revised by eliminating the items which did not correlate significantly with the master score. Three items were eliminated and resulted in a substantial increase in the overall level of significant correlations between the MMPI scales and

the NEWSSS. Three of the scales went from $p=.05$ to $p=.01$, and four from $p=.01$ to $p=.001$.

This step adds even more predictive power to the scale and shortens the length which may help to increase compliance.

Significant Demographic Variables

Several demographic variables are important to discuss. Specifically, age, and the three social questions.

Age

Age is the most numerously correlated scale of the demographics. The negative correlations are 7 (Pt), 8 (Sc), A, Ca, Pr, D4, TSC-IV, and TSC-VII. Running through the list the above correlations imply that the older subjects were less compulsive or anxious 7 (Pt), less socially anxious or alienated 8 (Sc), and less anxious overall 1 (A). A negative correlation with Ca implies that the older individual is more free of somatic complaints, is more extroverted and feels in control of their emotions. Older seminarians also tend to be less prejudiced, more intellectual, optimistic and self-confident according to a negative correlation on the Pr scale. D4 or mental dullness is also

negatively correlated which implies that they feel life is interesting and worthwhile, that they are capable of coping well, and are self-confident and sharp mentally. The two negatively correlated TSC scales imply that the older subjects were more free of depression and apathy and the anxiety, worry and fear that seems to accompany routine life stresses.

An obvious conclusion to the above discussion concerning the merits of age is that older seminarians in this sample are more adjusted in school. A word of caution is necessary here since the relationship may be curvilinear. Experience dictates that if the student is too old they become as maladjusted as those who are too young for seminary life. This seems true especially from the logical perspective. Older people have the life experience to make better choices concerning life direction, but people who are too old may have some sort of secondary agenda for seeking a seminary education.

Social Relationship Questions

Three questions were asked concerning social relationships in the demographics section. The first concerns enjoying being alone contrasted with disliking being alone. This produced four significant

correlations with the other 104 scales. This finding may be simply a chance phenomena.

The last of the three concerned having frequent problems with people contrasted with dealing easily with people. This scale produced five significant scales of the 104. This also may be a chance occurrence.

However, the second question concerning being uncomfortable with people contrasted with enjoying being with people correlated significantly 39 times. An analysis of the differences among these three seemingly similar questions produces several interesting hypotheses. The Soc B is a likert question that has as its end points the categories "Uncomfortable with people" and "Enjoy being with people". The first point to notice is that the higher on Soc B one places themselves the lower on the maladpativity instruments, SCS, SAS and SSS they score. Of theological interest is the fact that those higher on Soc B attend church more often and had more frequent personal devotions.

GPA, Credits, and Duration of Devotion

Several variables had no significance but because of this are important to mention.

GPA is chief among these since it was the variable most strongly correlated with professor's evaluation of adjustment in the validation sample. This signifies that GPA is highly significant for professors rating of students, possibly even the chief determiner. However, GPA is uncorrelated with pathology as measured by the MMPI, SAS, SCS, SSS and the NEWSSS. This is further evidence in support of the premise that GPA is not a good predictor of seminary adjustment.

The number of quarter hour credits earned is also uncorrelated with any of the MMPI scales. This fact implies that the duration of time in school is not an indicator of pathology. One cannot say that because a student is further along they are either more or less pathological. And further, it implies that using mere completion of school as a criterion for adjustment in school is untenable.

The last insignificant variable is Duration of personal devotions. This is important since many religious people feel that the length of time spent "in the word" is an important factor for mental/emotional health. This does not seem to be the case by this data.

This school has recently included a requirement for all students to participate in two semesters of group therapy. This is an attempt to promote a more open forum for dealing with personality variables which will hinder the students future ministries.

Theological Implications

The most logical starting place for this analysis is with the correlational data found on Table 10. Under the column, Importance of Religion, several relationships are significant.

Defensiveness and Religion

The more important religion is to a person as answered by in the demographics, the lower the K scale, in other words the less defensive. A finding such as this is very encouraging since it implies that the more religious a person is the more open they are. Unfortunately, this is contradicted by the fact that with increasing importance of religion the F-K (another measurement of defensiveness) index increases. Also significant is that the more religion means the more introverted the individual is. Other scales positively associated with an increasing importance of religion are, Ca, Dy, Cn, SI1, SI3, Soc, Mor, TSC-1 and TSC-IV. These findings may suggest that the

relationship between defensiveness and importance of religion are curvilinear. With either too little or too much religiosity, defensiveness increases.

Duration of devotions

The duration of personal devotions are uncorrelated with all other scales. The frequency of personal devotions per week was correlated significantly in the positive direction with Duration of Personal Devotions, Soc B, L, Mf, St, and Rel. The scales negatively correlated were SAS, Pa, MAS, Ca, Dy, Cn, D1, D5, PD4B, SCL1A, SI6, SOC, DEP, PHO, TSC-I, TSC-IV, TSC-V, TSC-VII.

Summary

The most significant finding in this study is the success of the NEWSSS in measuring pathology at WCBS. The NEWSSS is correlated significantly with 44 scales of the MMPI in the direction expected to predict pathology. This instrument can be further analyzed by administering it to a longitudinal sample and actually comparing its results with the reasons students give for seminary attrition.

Several other scales also will help to point out possible future problems. It appears that age is positively related to adjustment at least here at this seminary. The likert question SOC-B also is highly correlated with 39 the MMPI measures of pathology.

These questions, combined into an easily administered form and included in the general admission package sent to all prospective students represent the second step in the development of a useful screening device for WCBS.

REFERENCES

- Aloyse, M. (1961). Evaluations of candidates for religious life. Bulletin of the Guild of Catholic Psychiatrists, 8, 199-204.
- Barry, W. A., & Bordin, E. S. (1967). Personality development and the vocational choice of the ministry. Journal of Counseling Psychology, 14, 395-403.
- Bier, W. C. (1948). A comparative study of a seminary group and four other groups on the MMPI. Studies in Psychology and Psychiatry from Catholic University of America, 7, 1-107.
- Cardwell, S. W. (1967). The MMPI as a predictor of success among seminary students. Ministry Studies, 1, 3-20.
- Childers, R. D., & White, W. J. (1966). The personality of select seminary students. Personnel and Guidance Journal, 44, 507-510.
- Colligan, R. C., Osborne, D., Swenson, W. M., & Offord, K. P. (1983). The MMPI a contemporary normative study. New York: Praeger.

- Corville, W. J. (1964). The personality assessment of candidates for the priesthood and the religious life. National Catholic Education Association Bulletin, 61, 396-409.
- Duckworth, J. (1982). MMPI interpretation manual for counselors and clinicians. Accelerated Development: Muncie, IN.
- Davis, C. E. (1967). A guide for counseling church workers. New York: Department of Ministerial Relations of the United Presbyterian Church, U.S.A..
- Fielder, D. W. (1964). A nomothetic study of the Southern California School of Theology seminarian. Unpublished doctoral dissertation, Southern California School of Theology.
- Flatt, B. (1973). Predicting academic success of graduate students in religion. Review of Religious Literature, 14, 110-111.
- Graham, J. R. (1977). The MMPI: A practical guide. New York: Oxford University Press.
- Godfrey, R. J. (1955). Predictive value of the MMPI with candidates for the religious brotherhood. Unpublished M.Ed. Thesis, Marquette University.

- Hathaway, S. R., & McKinley, J. C. (1957). Some normative data on the new MMPI scales. Journal of Clinical Psychology, 13, 364-368.
- Hoge, D. R., Dyble, J. E., & Polk, D. T. (1981). Organizational and situational influences on vocational commitment of protestant ministers. Review of Religious Research, 23, 133-149.
- Ingram, O. K. (1963). Student recruitment. Duke Divinity School Bulletin, 28, 188-198.
- Kennedy, W. A. (1962). MMPI profiles of gifted adolescents. Journal of Clinical Psychology, 18, 148-149.
- Maehr, M. L., & Stake, R. E. (1962). The value patterns of men who voluntarily quit seminary training. Personnel and Guidance Journal, 40, 537-540.
- Megargee, E. I., Cook, P. E., & Mendelson, G. A. (1967). Development and validation of an MMPI scale of assaultiveness in overcontrolled individuals. Journal of Abnormal Psychology, 72, 519-528.
- Menges, R. J., & Dittes, J. E. (1965). Psychological studies of clergymen: Abstracts of research. New York: Thomas Nelson and Sons.

- Mueller, E. (1985). [SWB and ROS scales relationship to WCBS]. Manuscript in process.
- Nauss, A. (1983). Seven profiles of effective ministers. Review of Religious Research, 24, 334-346.
- Newmark, C. S. (1979). MMPI clinical and research trends. New York: Praeger Publishers.
- Parker, T. G., (1984). An empirical examination of the construct validity of the spiritual leadership qualities inventory. Unpublished doctoral dissertation, Western Conservative Baptist Seminary, Portland, Oregon.
- Pino, C. J. (1980). Interpersonal needs, counselor style, and personality change among seminarians during the 1970s. Review of Religious Research, 21, 351-367.
- Powers, H. J. (1985). Development of a screening device using demographics, sentence completion and seminary attrition scale. Unpublished doctoral dissertation, Western Conservative Baptist Seminary, Portland.
- Rosco, J. T., & Girling, P. A. (1970). A survey of values of American theological students. Review of Religious Research, 10, 210-218.

- Rotter, J. B., & Rafferty, J. E. (1950). The Rotter incomplete sentences blank, college form. New York: The Psychological Corporation.
- Serkownek, K. (1975). Subscales for scales 5 and 0 of the MMPI. Unpublished manuscript.
- Smith, D. (1984) [Discussion about the BEVIN]. Personal communication.
- Steere, J. L. (1970). The relationship of a measure of personality factors to a measure of motivation for ministerial work and success in a selected B. D. program. Unpublished Ed. D. dissertation, Ball State University.
- Stern, G. G. (1954). Assessing theological student personality structure. Journal of Pastoral Care, 8, 76-83.
- Strunk, O. Jr. (1959). Interest and personality patterns of preministerial students. Psychological Reports, 5, 740ff.
- Sweeney, R. H. (1964). Testing seminarians with the MMPI and Kuder: A report of ten years of testing. Unpublished M. A. thesis, Loyola University.
- Swenson, W., Pearson, J., & Osborne, O. (1973). An MMPI source book. Minneapolis University of Minnesota Press.

- Trachsel, M. D. (1973). Survival and attrition among seminarians. Unpublished Ed. D. dissertation, Marquette University.
- Vaughan, R. P. (1965). The influence of religious affiliation on the MMPI scales. Journal of Clinical Psychology, 21, 416-417.
- Vaughan, R. P. (1966). Personality characteristics of exceptional college students. Proceedings of the 74th Convention of the American Psychological Association, 281-282.
- Vaughan, R. P. (1968). Seminary training and personality change. Personnel and Guidance Journal, 46, 685-689.
- Welch, M. R., and Barrish, J. (1982). Bringing religious motivation back in: A multivariate analysis of motivational predictors of student religiosity. Review of Religious Research, 23, 357-369.

APPENDICES

Appendix A	Demographic Questionnaire.....	149
Appendix B	Questions Comprising SAS and their Chi-Square values.....	151
Appendix C	Scoring the SCS and Sample of SCS....	155
Appendix D	Questions and Sub-groups Comprising the SSS.....	161
Appendix E	General Announcement to Students.....	163
Appendix F	Copy of Standardized Instructions....	165
Appendix G	Raw Data.....	166
Appendix H	Vitae.....	178

Appendix A Demographic Questionnaire

BACKGROUND INFORMATION

ID NUM _____

Please place the number which most accurately describes you in the blank provided to the right of each question; please answer all items.

1. What is your age? _____
2. Approximately how many total credit hours have you completed here at Western? _____
3. How many other seminaries have you attended which did not result in a degree? _____
4. What is your present marital status? _____
 - 1 = never married
 - 2 = married
 - 3 = divorced
 - 4 = widowed
 - 5 = separated
 - 6 = living together
5. How often do you attend church functions? _____
 - 0 = less than once per week
 - 1 = 1 per week
 - 2 = 2 per week
 - 3 = 3 per week
 - 4 = 4 or more times per week
6. RELIGIOUS DEVOTIONAL LIFE
 - A. How often do you have personal devotions? _____
 - 1 = never
 - 2 = less than once per week
 - 3 = weekly
 - 4 = 1-3 times per week
 - 5 = 4-7 times per week
 - 6 = more than once per day
 - B. How often do you have family devotions? _____
 - 1 = not applicable; living alone
 - 2 = never
 - 3 = less than once per week
 - 4 = weekly
 - 5 = 1-3 times per week
 - 6 = 4-7 times per week
 - 7 = more than once per day

C. What is the average duration of your personal devotions?

- 0 = not applicable
 1 = less than 5 min per occasion
 2 = 5-9 minutes
 3 = 10-14 minutes
 4 = 15-29 minutes
 5 = 30-59 minutes
 6 = 60 or greater

D. What is the average duration of your family devotions?

- 0 = not applicable
 1 = less than 5 minutes per session
 2 = 5-9 minutes
 3 = 10-14 minutes
 4 = 15-29 minutes
 5 = 30-59 minutes
 6 = 60 or greater

7. RELIGIOUS LEADERSHIP EXPERIENCE

A. How many total years have you served in a leadership position in the church?

B. In what capacity did you serve for most of the years?

- 0 = not applicable
 1 = Pastor
 2 = Church School Teacher
 3 = Missionary
 4 = Elder/Deacon
 5 = Other

FOR EACH OF THE FOLLOWING GIVE THE NUMBER THAT BEST DESCRIBES YOU

8. Importance of religion:

no importance 1 2 3 4 5 6 7 extremely important _____

9. Financial condition:

chronic problem 1 2 3 4 5 6 7 bills paid _____

10. Social relationships:

A. Dislike being alone 1 2 3 4 5 6 7 Enjoy being alone _____

B. Uncomfortable with people 1 2 3 4 5 6 7 Enjoy being with people _____

C. Frequent problems with people 1 2 3 4 5 6 7 Deal easily with people _____

11. Relationship to spouse:

A. Wife against seminary 1 2 3 4 5 6 7 Wife for seminary _____

B. Wife against career choice 1 2 3 4 5 6 7 Wife for career choice _____

Appendix B Questions Comprising SAS and their Chi-Square Values

ITEMS ON THE SA (SEMINARY ATTRITION) SCALE*

(T) or (F) following the item indicates the
direction of significance for the attrition group

1. I wake up fresh and rested most mornings. (F)
2. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing. (T)
3. I find it hard to keep my mind on a task or job.. (T)
4. I have never been in trouble because of my sex behavior. (F)

*Chi-square values of scale items ($p < .03$, $df = 1$)

1.	7.94	28.	8.01
2.	5.84	29.	6.98
3.	9.33	30.	5.05
4.	5.12	31.	5.57
5.	5.03	32.	10.22
6.	8.17	33.	10.98
7.	6.48	34.	8.10
8.	8.56	35.	12.11
9.	5.85	36.	5.78
10.	9.33	37.	9.04
11.	5.85	38.	5.96
12.	5.32	39.	5.73
13.	6.27	40.	11.26
14.	10.16	41.	5.60
15.	7.04	42.	6.34
16.	7.24	43.	5.07
17.	7.25	44.	5.14
18.	5.93	45.	9.26
19.	8.17	46.	5.70
20.	5.84	47.	8.42
21.	9.73	48.	5.82
22.	10.60	49.	5.77
23.	6.27	50.	12.36
24.	5.78	51.	5.58
25.	6.27	52.	5.31
26.	10.98	53.	5.64
27.	6.98	54.	6.79

5. I do not always tell the truth. (F)
6. I prefer to pass by school friends, or people I know but have not seen for a long time unless they speak to me first. (T)
7. I sometimes keep on at a thing unless others lose their patience with me. (T)
8. I am very strongly attracted by members of my own sex. (T)
9. I enjoy reading love stories. (T)
10. My feelings are not easily hurt. (F)
11. These days I find it hard not to give up hope of amounting to something. (T)
12. Sometimes when I am not feeling well I am cross. (T)
13. My speech is the same as always (not faster or slower, or slurring; no hoarseness). (F)
14. Criticism or scolding hurts me terribly. (T)
15. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important. (F)
16. Most nights I go to sleep without thoughts or ideas bothering me. (F)
17. My hands have not become clumsy or awkward. (F)
18. I would like to be a journalist. (T)
19. I gossip a little at times. (T)
20. I have been inspired to a program of life based upon duty which I have since carefully followed. (F)
21. I have been quite independent and free from family rule. (F)
22. I like to be with a crowd who play jokes on one another. (F)
23. Something exciting will almost always pull me out of it when I am feeling low. (F)

24. I have never been in trouble because of my sex behavior. (T)
25. I am so touchy on some subjects that I can't talk about them. (T)
26. In school I found it very hard to talk before the class. (T)
27. The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it. (T)
28. My mother or father often made me obey even though I thought it was unreasonable. (F)
29. I find it hard to keep my mind on a task or job. (T)
30. I have a habit of counting things that are not important such as bulbs on electric signs, and so forth. (T)
31. I tend to be on my guard with people who are somewhat more friendly than I had expected. (T)
32. I have no dread of going into a room by myself where other people have already gathered and are talking. (F)
33. I have several times given up doing a thing because I thought too little of my ability. (T)
34. I am inclined to take things hard. (T)
35. Religion gives me no worry. (F)
36. At parties I am more likely to sit by myself or with just one other person than to join in with the crowd. (T)
37. I wish I could get over worrying about things I have said that may have injured other people's feelings. (T)
38. I am usually calm and not easily upset. (F)
39. At times I think I am no good at all. (T)
40. I like or have liked fishing very much. (T)
41. I worry quite a bit over possible misfortunes. (T)

43. I try to remember good stories to pass them on to other people. (F)
44. I like to poke fun at people. (F)
45. I have had no difficulty starting or holding my urine. (F)
46. I have several times had a change of heart about my life work. (T)
47. Whenever possible I avoid being in a crowd. (T)
48. When I am cornered I tell that portion of the truth which is not likely to hurt me. (T)
49. While in trains, busses, etc., I often talk to strangers. (F)
50. I feel like giving up quickly when things go wrong. (T)
51. I read in the Bible several times a week. (F)
52. It is always a good thing to be frank. (F)
53. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well. (F)
54. I like parties and socials. (F)

Chapter Two

SCORING THE ISB

THE USE OF THE SCORING EXAMPLES

Sentence completions are scored from examples in the scoring manuals by assigning a numerical weight from 0 to 6 for each sentence and totaling the weights to obtain the over-all score. The scoring examples in Part II of this manual are given to facilitate the assignment of weights to responses. They are from ISB responses of 58 male and 53 female college students, ranging from extremely well-adjusted persons to those judged to be in need of psychotherapy. Since the scoring examples are illustrative and representative of common responses with no intent to list all possible sentence completions, a set of scoring principles will be presented. These principles are intended to aid in determining the correct weight for a completion when a very similar statement cannot be found in the scoring examples.

In order to provide the potential user of the ISB with "supervised" experience before attempting to score clinical or experimental records, six randomly selected sample records have been placed in Chapter Three. The correct scoring for these records is given at the end of that chapter. These examples will enable the clinician to check his scoring against that of the authors'. They may also be used by a clinic supervisor to check the scoring ability of any student or general scorer.

Sentence completions used for illustrative purposes in the following discussions are taken almost entirely from the manual for male students.

SCORING PRINCIPLES

1. Omission responses

Omission responses are designated as those for which no answer is given or for which the thought is incomplete. Omissions and fragments are not scored. It might be thought that omission responses are representative of psychological blocks and, therefore, maladjustments. This seems to be true in some cases. However, it has been found that such an hypothesis is not tenable in the majority of instances. This conclusion was reached by the authors, as well as by Rotter and Willerman, after study showed that omission responses appear as often in the records for adjusted subjects as for the maladjusted.

It is recognized that in a clinical situation omissions are occasionally provocative since they may point to areas of conflict which the individual does not recognize or cannot bring himself to express. In cases such as these they are of course, worthy of further exploration. For example, the paper may have frequent references to the mother as a "very wonderful person" and no response given to the stimulus, "My father . . ."

Occasionally it is found that, although the stimulus elicits a response, the response cannot be scored because the thought is incomplete and the meaning is not clear. Examples which are to be considered omissions are as follows: "I suffer . . . from —"; "What annoys me . . . is for someone —"; "In high school . . . I —" (This rule of not scoring the item does not apply, however, to essentially meaningless groups of words which are stereotypes, song titles or commonly found responses. For further discussion, see rules concerning neutral responses.)

There are certain cases in which a sentence, although not actually complete is scored because one complete thought has been expressed. For example "Most girls . . . don't appeal to me except sexually because —"; or, "I hate . . . the thought of going home since —"

For all responses which are subsumed under the heading of incomplete thoughts or omissions, no scoring is made. After the remainder of responses has been scored, these unevaluated items are prorated by the formula: $\frac{\text{number of items}}{\text{total number of items}} \times \text{total score}$. However, if there are more than twenty omissions, the paper is considered unscorable for all practical purposes.

2. Conflict responses

"C," or conflict, responses are those indicating an unhealthy or maladjusted frame of mind. These include hostility reactions, pessimism, symptom elicitation, hopelessness and suicidal wishes, statements of unhappy experiences, and indications of past maladjustment. Examples of these types of reactions follow "I hate . . . almost everyone." "People . . . destroy what they built." "I suffer . . . from dizzy spells." "Sometimes . . . I wonder what's the use." "I wish . . . I were dead." "When I was a child . . . I spent most of my time in a hospital bed." "In high school . . . I was extremely self-conscious and backward."

Some conflictive responses have been elicited by stimuli which presuppose a negative reply, but there is a large group of "C" responses which consists of twisted answers. In reply to the stimulus "I like . . ." the completion may be, "to be alone." Other examples of twisting are: "The happiest time . . . end badly." "The best . . . years of my life are wasted."

Responses range from C1 to C3 according to the severity of the conflict or maladjustment expressed. The numerical weights for the conflict responses are C1 = 4, C2 = 5 and C3 = 6.

Typical of the C1 category are responses in which concern is expressed regarding such things as the world state of affairs, financial problems, specific school difficulties, physical complaints, identifications with minority groups, and so on. In general it might be said that subsumed under C1 are minor problems which are not deep-seated nor incapacitating, and more or less specific difficulties. Here are examples. "The future . . . looks rather black, at least for the near future of our country." "The only trouble . . . is financial." "I regret . . . my ignorance of subject matter." "I suffer . . . from sinus." "What pains me . . . is racial intolerance."

More serious indications of maladjustments are found in the C2 category. On the whole, the responses refer to broader, more generalized difficulties than are found in C1. Included here are expressions of inferiority feelings, psychosomatic complaints, concern over possible failure, generalized school problems, lack of goal, feelings of inadequacy, concern over vocational choice, and difficulty in heterosexual relationships as well as generalized social difficulty. Here are some sample responses. "Other people . . . don't seem to be very impressed with me." "I suffer . . . headaches." "My greatest worry is . . . I will fail to attain my goal in life." "I can't . . . concentrate." "I wish . . . I could be as natural and confident as most people." "I regret . . . not having any goals to work towards." "My greatest fear . . . is that I'll be disinterested in the vocation I train myself for." "Most girls . . . are only looking for husbands."

Expression of severe conflict or indications of maladjustments are rated C3. Among the difficulties found in this area are suicidal wishes, sexual conflicts, severe family problems, fear of insanity, strong negative attitudes toward people in general, feelings of confusion, expression of rather bizarre attitudes, and so forth. Examples in this category are: "I wish . . . I were dead." "I regret . . . prolonged autoeroticism and fear that I might not be able to make a normal sexual adjustment." "The only trouble . . . is an inner confusion." "Sometimes . . . I think people watch me."

3. Positive responses

"P," or positive, responses are those indicating a healthy or hopeful frame of mind. These are evidenced by humorous or flippant remarks, optimistic responses, and acceptance reactions. Examples are as follows: "What annoys me . . . are people who squeeze the toothpaste tube in the middle." "The best . . . is yet to come." "People . . . are fun."

Here, too, one finds twisted responses, but in this category fall those in which the stimuli suggest a negative reply and the response given is a positive one. For example, such a response made to "I can't . . ." is "be two places at one time." Further examples of the twisted responses are: "I suffer . . . from cold ears on mornings such as today." "The only trouble . . . is that there are not more hours in the day."

Responses range from P1 to P3 depending on the degree of good adjustment expressed in the statement. The numerical weights for the positive responses are P1 = 2, P2 = 1 and P3 = 0.

In the P1 class common responses are those which deal with positive attitude toward school, hobbies, sports, expressions of warm feeling toward some individual, expressed interest in people, and so on. Examples illustrating typical responses in the P1 category are: "I . . . am glad I started to college." "I like . . . sports." "The best . . . friend I have is Betty." "People . . . are interesting."

Generally found under the heading of P2 are those replies which indicate a generalized positive feeling toward people, good social adjustment, healthy family life, optimism, and humor. "I am best . . . when I'm with people." "Most girls . . . appeal to me." "Back home . . . are a couple of swell parents." "I like . . . dancing." "The best . . . woman is my wife." "The happiest time . . . is yet to come."

Clear-cut good-natured humor, real optimism, and warm acceptance types of responses which are subsumed under the P3 group. "I like . . . great many things." "The best . . . is yet to come." "People . . . are sweet." "I feel . . . happy." "I regret . . . to hear the alarm clock."

The ISB deviates from the majority of tests in that it scores humor responses. Most tests make no allowance for the scoring of humor and, as a matter of fact, some specifically request the subject not to answer humorously. By so doing they fail to recognize that humor is a healthy way to meet frustrating situations. One of the dangers in scoring may be that these items are less reliable because of the difficulty in defining humor, but it seems a worthwhile addition.

4. Neutral responses

"N," or neutral, responses are those not falling clearly into either of the above categories. They are generally on a simple descriptive level. Responses such as "Most girls . . . are females," which evade the purpose of the test, are generally scored as neutral. Stereotypes, catch phrases, song titles, expressions of common cultural clichés are usually scored as neutral, as commonly found, essentially meaningless completions. Examples of responses in the order listed are as follows: "Boys . . . will be boys." "When I was a child . . . I spoke as a child." "Sometimes . . . I wonder why I spend lonely nights dreaming of a song!" "People . . . who are truthful will be rewarded." "Back home . . . on the farm."

After some familiarity with the test it may be seen that there are two general types of responses which account for a large share of those that fall in the neutral category. One group includes those lacking emotional tone or personal reference. The other group is composed of many responses which are as often among maladjusted as among adjusted individuals and through which judgment could not be legitimately placed in either the "C" or "P" group. The "N" responses are scored 3.

Deviation from the generalizations regarding the scoring of "C," "P" or "N" responses may occur and, if they do, examples will be listed in the scoring manual. For example, at first glance the response, "My greatest fear . . . I have no fear," would probably fall into a "P" category. However, the response is essentially one of conflict and given by maladjusted individuals, so it is placed in the C3 category. Another example might be, "I am best . . . when happy," which is not rated as "P," but rather "C," because of the implication that it is not a frequent occurrence.

5. The scoring manuals as guides

The scoring manuals, one for males, one for females, are to serve as guides to be followed as closely as possible. All possible responses for each of the different numerical weights are not given. Many times a generalization is listed for a category of a particular item in order to aid the scoring. An example in which it is possible to score a certain response with the aid of a generalization is, "I can't . . . study chemistry." Although such a response is not listed per se in the C1 category, one finds the generalization "study specific subject matter." "What annoys me . . . is myself." is not found in the manual, but in the C2 category one finds, "things about self or other's reaction to self." "In high school . . . I was captain of the football team." is scored P2 because of the general rule for that item—"statement of participation in sports or activities."

In other cases there are responses which are not found in the manual and for which there is no general rule. These can be scored by noting other responses for that item. For example, although "I hate . . . failures," is not found in any category for that item, it most closely approximates the tone of those in the C2 class and the general types of responses for C2. "I suffer . . . bad habits," is seen to fall in the C2 category, although it is not specifically listed. "The best . . . things in life aren't free," on the other hand, fits best into the C1 class.

6. Independent scoring of items

Each response is to be scored and evaluated independently of all others, except when there is a clear-cut reference to a previous statement. It is, of course, important in the scoring of any papers to avoid the halo effect as much as possible so that the measurement can be reliable. This is equally necessary here for, if each response is not scored independently of all others, there is a tendency to rate all responses in light of the over-all picture. For example, in scoring the record of a maladjusted individual there is apt to be a bias in the direction of "C," when certain of the responses most surely should be scored "N" or "P."

However, in some cases a response refers directly to a previous item, and it would not be reasonable to score it independently of the first. In such an instance, therefore, a previous response must be used in the evaluation of the later one. Examples of this are as follows. "I wish . . . he were dead" in one record had reference to the preceding sentence when the individual said,

"The only trouble . . . is I wish I could forget I'll be like my father." The response, "I . . . think I can if the rungs of the ladder stay in place when I put them there," is not very meaningful until it is seen that the previous statement was, "I secretly . . . desire to become great." Another instance is, "I secretly . . . blame my mother," which refers to a precedent, "My father . . . was a suicide."

There is one other type of situation in which greater reliability of rating is achieved if the response is taken in light of the over-all picture. This occurs when the individual's frame of reference alters the evaluation considerably, as in the record of a boy who makes reference to coming marriage within a short time. In response to "Most girls . . ." he said "do not interest me much any more." If this were taken out of context of the whole record it would be rated differently than if the context were also utilized. Another illustration is that of a male student who is married and states, "The happiest time . . . is with my family." Such a response from an unmarried student would be rated quite differently.

7. Qualifications

Responses which start like an example in the manual but are differently qualified are scored with a consideration of these qualifications. For example, it may be seen that the following responses should be scored higher than if they had not been qualified. "Sports . . . I have always liked, yet they don't hold my interest like they did." "Back home . . . is the family and a swell town, but I don't like it too well." "People . . . are all right, but I don't like being in a crowd like parties." "This school . . . is O.K., but it's too close to home."

There are also responses which will be given lower ratings than they would get without the qualification. Common among these are responses given by individuals subsequent to therapy. "The future . . . is uncertain, but I think I can lick it." "Back home . . . life was pretty miserable, but I think I can cope with the situation now."

Such qualifications may change the weighting of the response by one or more points.

8. Extreme weights

Examples are not given for extreme weights (0 or 8) in some items, usually, because extreme responses to those items are rare. These weights may be assigned, however, if clearly warranted. In cases when a response seems to be more extreme than the examples cited, then it is permissible to use an extreme weight. If the following responses were given they would be scored 0, although there are no examples listed for these items. "Sports . . . should not be allowed for mixed groups because they are too stimulating." "Reading . . . is one thing I hate."

9. Generality of scoring illustrations

Where precedent for scoring a given response cannot be found in the examples for that item, the examiner may look for a similar response to another item. There are several stimuli which are very similar and elicit the same types of responses so that cross reference is possible. However, male and female manuals are not to be used interchangeably. Items which are commonly reacted to as equivalents are these. "What annoys me . . ." "What pains me . . ." and "I hate . . ." "My greatest fear . . ." and "My greatest worry . . ." "People . . ." and "Other people . . ." "The happiest time . . ." and "The best . . ." "I need . . ." and "I wish . . ."

An individual might say, "What annoys me . . . is my home life." There is no example given under this item, but by referring to item 29, "What pains me . . ." the response can be found under C3. For item 29 the completion, "What pains me . . . is doing things I don't like," does not have a similar example, but item 30, "I hate . . ." has this response classified as C1. Another example is "The best . . . time is having a party," which may be scored by referring to item 2, "The happiest time . . ." "I wish . . . I had more friends" can be rated by referring to item 25, "I need . . ."

Using other items as examples for the scoring is particularly important in item 23, "Sometimes . . ." and item 37, "I . . ." which are so unstructured that just about any type of response may be given. In these two items especially, it is often necessary to refer to other items for accurate evaluation.

10. Unusually long responses

In cases where the response is unusually long, it should be given an additional point in the direction of "C" unless it has already been rated 6. It has been found that the maladjusted individual often writes long involved sentences as if compelled to express himself fully and not be misunderstood. On the other hand, the well-adjusted person frequently replies to the stimuli with short concise statements. For example, one poorly adjusted individual wrote, "I am best when . . . I am under no pressure of responsibility concerning the accomplishment of a given thing within a certain specified time." An adjusted person wrote, "I am best when . . . I'm having a party." This does not seem to be a function of intelligence as might be hypothesized. The previous responses were from two subjects of superior intelligence. The following are reactions of two individuals of lesser ability. The maladjusted student wrote, "I like . . . agriculture, to read short stories, to go with a nice rather quiet girl who doesn't drink or smoke, and other fellows, and to eat and sleep." A well-adjusted individual wrote simply, "I like . . . people." If a completion includes a qualification as well as being unusually lengthy, the clinician will have to use his own judgment in determining to what extent the initial scoring of the response should be changed.

The only exception to this rule concerns neutral completions. If the response is a common quotation, stereotype or song title, it is always scored as neutral, regardless of length.

Chapter Three

SIX PRACTICE CASES

Following are *JSB* records of six college students. Correct scoring for these will be found at the end of this chapter.

As has been stated previously, the weights to be assigned are as follows: C3 = 6, C2 = 5, C1 = 4, N = 3, P1 = 2, P2 = 1, P3 = 0. A further word should be said about long responses. It has been found useful as a rough measure to consider the statement as lengthy if the response (excluding the stimulus) is greater than ten words. In such cases the weight given is increased by one point, except when the essence of the completion would have been rated as 6, since the greatest weight assigned to any response is 6. As stated previously, this rule does not apply to common quotations, stereotypes or song titles, which are always scored as neutral.

For convenience, it is suggested that an *Incomplete Sentences Blank* be used for recording the scores for the following practice cases.

SENTENCE COMPLETION SECTION

ID NUMBER _____

PLEASE COMPLETE THESE SENTENCES TO EXPRESS
YOUR REAL FEELINGS.

TRY TO DO EVERY ONE. BE SURE TO MAKE A COMPLETE SENTENCE

1. I like _____
2. The happiest time _____
3. I want to know _____
4. Back home _____
5. I regret _____
6. Witnessing _____
7. Boys _____
8. Pastors _____
9. What annoys me _____
10. People _____
11. A mother _____
12. I feel _____
13. My greatest fear _____
14. In school _____
15. I can't _____
16. To reach _____
17. When I was a child _____
18. My nerves _____
19. Other people _____
20. I suffer _____
21. I failed _____
22. Reading _____

- 23. My mind _____
- 24. The future _____
- 25. I need _____
- 26. Marriage _____
- 27. I am best when _____
- 28. Sometimes _____
- 29. What pains me _____
- 30. Prayer meetings _____
- 31. This place _____
- 32. I am very _____
- 33. The only trouble _____
- 34. I wish _____
- 35. My father _____
- 36. I secretly _____
- 37. I _____
- 38. Poverty _____
- 39. My greatest worry is _____
- 40. Most girls _____

Appendix D Questions and Sub-groups Comprising the SSS

THE CODES FOR TYPE QUESTION ARE AS FOLLOWS

INTRINSIC TYPE	CODE	TOTAL
Flexibility/Rigidity	{IF}	4
Coping/Adjustment	{IC}	8
EXTRINSIC TYPE		
Appropriate Behavior	{EA}	6
Social Relationships	{ES}	5

CODES ADDED TO THE STANDARD QUESTIONNAIRE BELOW

ID NUMBER _____

QUESTIONS FOR WCBS APPLICANT SCREENING RESEARCH

INSTRUCTIONS

CIRCLE THE NUMBER THAT BEST FITS THE STUDENT IN QUESTION

STRONGLY AGREE	MODERATELY AGREE	AGREE	DISAGREE	MODERATELY DISAGREE	STRONGLY DISAGREE
1	2	3	5	6	7

CODE

- 1 2 3 5 6 7 IF 15. This student deals effectively with authority issues.
- 1 2 3 5 6 7 IF 19. This student is maturing in the Christian walk.
- 1 2 3 5 6 7 IF 12. This student seems overly narrow in focus.
- 1 2 3 5 6 7 IF 21. This student is receptive to new ideas and view points (not dogmatic in their views).
- 1 2 3 5 6 7 IC 16. If it were up to me I would recommend that this person seek professional counseling.
- 1 2 3 5 6 7 IC 11. This student seems to be aware of their own emotional state.
- 1 2 3 5 6 7 IC 2. This student strives to his or her capacity.
- 1 2 3 5 6 7 IC 3. This student is having trouble adjusting.
- 1 2 3 5 6 7 IC 5. This student is unorganized.
- 1 2 3 5 6 7 IC 8. This student is able to deal effectively with emotional issues.
- 1 2 3 5 6 7 IC 20. This person has little self-esteem.
- 1 2 3 5 6 7 IC 22. This student has the capacity for involvement

with others, the ability to interact with others without arousing hostility or rejection.

- 1 2 3 5 6 7 EA 23. This student is characterized by a high energy level, consistently and purposively directed.
- 1 2 3 5 6 7 EA 1. This student is actively involved in class.
- 1 2 3 5 6 7 EA 18. This person displays peculiar habits, mannerisms or behavior which may be offensive to others.
- 1 2 3 5 6 7 EA 14. This student is disruptive in class.
- 1 2 3 5 6 7 EA 6. This student demonstrates Christian character consistent with WCBS standards.
- 1 2 3 5 6 7 EA 7. This student dresses appropriately.

- 1 2 3 5 6 7 ES 9. This student's life seems to revolve around academics.
- 1 2 3 5 6 7 ES 4. This person is outgoing and personable.
- 1 2 3 5 6 7 ES 10. This student seems withdrawn and isolated.
- 1 2 3 5 6 7 ES 13. I feel personally positive about this person.
- 1 2 3 5 6 7 ES 17. This student demonstrates the capacity for effective teamwork with their peers.

Appendix E General Announcement to Students



April 11, 1984

Dear

As part of an institutional research project, Western is conducting a pilot study to identify some of the special characteristics for our students. You have been chosen as one of the men to represent the school in this endeavor.

It is really important that we have your help since for the results to be meaningful we must have near 100% participation. Therefore, YOU are really important to make this study fly.

We are asking you to give about an hour and a half to two hours of your time to take a series of paper and pencil tests. Nothing magical, nothing difficult, just some time and patience. We have included them in the packet you have with this letter. There is an instruction sheet included to help understand what to do. These tests are for establishing seminary norms only-- your individual scores do not matter to us. However, if you would like Harvey Powers or Ross Neder to go over the results, record your number and they will be happy to do so.

We want to assure you that the individual test results will be absolutely confidential and that your code number will be destroyed once the data has been compiled.

Thank you for helping your school in this project. Please contact Harvey Powers (Box 392, Phone 256-0933), Ross Neder (Box 320, Phone 771-3360 or WCBS Phone 233-8561, ext. 86), or me if you have any questions.

Sincerely,


Lynn Robert Ruark
Dean of Student Affairs

LRR:da





**Western
Conservative Baptist
Seminary**

April 13, 1984

As part of an institutional research project, Western is conducting a study to identify some of the special characteristics for our students. You have been chosen as one of the men to represent the school in this endeavor.

It is really important that we have your help since for the results to be meaningful we must have near 100% participation. Therefore, YOU are really important to make this study fly.

We are asking you to give about an hour and a half to two hours of your time to take a series of paper and pencil tests. Nothing magical, nothing difficult, just some time and patience. These tests are for establishing seminary norms only—your individual scores do not matter to us. However, if you would like Harvey Powers or Ross Neder to go over the results, record your number and they will be happy to do so.

We have scheduled five sessions for you to choose from to do this. The times and dates are:

1. Thursday, April 19th, from 7:30-9:30 a.m. in the chapel
2. Thursday, April 19th, from 3:30-5:30 in Room 104
3. Friday, April 20th, from 3:30-5:30 in the chapel
4. Monday, April 23rd, from 7:30-9:30 a.m. in the chapel
5. Monday, April 23rd, from 10:10-12:10 in Room 104

Please indicate the time which is most convenient for you and return this letter to the Dean of Students Mail Box in the chapel. If you really can't make any of these times, please give us a time below which you can make, but do it now so we can schedule you as soon as possible.

Time one	Time Two
Day _____	Day _____
Time _____	Time _____

We want to assure you that the individual test results will be absolutely confidential and that your code number will be destroyed once the data has been compiled.

Thank you for helping your school in this project. Please contact Harvey Powers (Box 392, phone 256-0933), Ross Neder (Box 320, phone 771-3360 or WCBS phone 233-8561, ext. 86), or me if you have any questions.

Sincerely,

Lynn Robert Ruark
Dean of Student Affairs

LRR:lje



Appendix F Copy of Standardized Instructions

STANDARDIZED INSTRUCTIONS FOR THE ADMINISTRATION OF TEST PACKET

1. Welcome to this testing session. I am going to read this statement so that every session will get exactly the same instructions and the data we get will then be maximally useful.
2. There is no time limit for these tests but we do ask that you fill them out completely and honestly. Please don't omit answers to any of the items.
3. There are no right or wrong answers to any of these questions so please answer them in the manner which best describes you, usually your first impression is the best. Respond to the questions in a present tense frame of mind rather than from out of your past experiences.
4. You have been handed a test packet with a code number on every form. This is your number and insures that nobody will be able to tell who's form it is without the master list which only Harvey or Ross will have access to. Once the data has been collected even this list will be destroyed. If you wish to find out what the results of your tests are please record your code number, once the list is destroyed there's no other way to access test data.
5. Now open your test package. You will find several different forms, please check that you have the MMPI questions and answer forms, the TSC questions and answer forms, the SWB and SM questions and the SAR. Finally there is also a request for the names of five professors who know you best here at WCB. Please fill this out right now. Some of them may be used in a later stage of this study.
6. Please don't discuss this with others on campus at least until the testing phase is over at the end of this month. We really desire everybody to be on equal ground when they come here.
7. Are there any questions. Please begin

Appendix G RAW DATA

VARIABLE ORDER

ID GROUP SENTCOMP GPA AGE TSCSC TF CONNET CONTOT
 TOTALPOS P1 P2 P3 POSA PB PC POSD PE TOTVAR COLVAR
 ROWVAR TOTD TD5 TD4 TD3 TD2 TD1 DP GM TSCPSY TSCPD N PI
 NDS NIS SA CREDITS OTHRSEM MARIT CHURATT PERSDEV FAMDEV
 DURPERS DURFAM YRSLDR CAPICT IMPORT FINANC SOCA SOCB
 SOCC SPOUSEA SPOUSEB SSS SAS L F K HS D HY PD MF PA PT
 SC MA SI FK A R MAS ES LB CA DY DO RE PR ST CN AL OH D1
 D2 D3 D4 D5 HY1 TO HY5 PD1 TO PD3 PD4A PD4B PA1 TO PA3
 SC1A SC1B SC2A SC2B SC2C SC3 MA1 TO MA4 SI1 TO SI6 MF1
 TO MF6 SOC DEP FEM MOR REL AUT PSY ORG FAN HOS PHO HYP
 HEA TSC1 TO TSC7 SSSa WONDER QUEST1 TO QUEST25 REVSSS.

1 3 111 3.13 48 23 .93 -15 21 385 134 131 120 78 82
 76 77 72 32 19 13 128 10 33 4 31 22 69 101 54 92 97
 18 7 21 35 44 0 2 3 4 5 4 3 15 2 7 6 2 6 6 7 7 66 19
 4 2 14 4 10 17 10 31 13 6 4 16 33 -12 3 17 12 53
 7 5 15 21 25 7 20 23 21 16 3 3 2 0 2 4 5 0 3 3 1 4
 9 4 1 2 5 5 2 1 0 1 0 0 0 4 4 4 9 4 13 2 5 1 8 7 5 4 3
 5 11 3 13 2 12 6 7 4 4 5 6 14 3 10 3 6 0 3 6 4
 66 19 5 3 3 5 1 2 2 3 2 3 2 2 3 2 2 5 3 2 2 5 2 3 2 2 2
 54

2 3 95 2.98 28 39 1.26 15 33 357 142 98 117 84 69
 59 69 76 69 44 25 132 30 18 17 16 19 53 102 49 69 84
 7 8 15 22 70 1 2 3 5 5 5 4 4 1 7 3 4 6 6 7 6 x 26 1
 7 5 9 17 15 24 36 8 23 23 25 34 2 22 7 25 38 5
 16 32 14 15 18 19 30 27 11 4 3 5 2 3 1 1 2 6 3 4 6 0
 12 8 4 2 1 4 1 2 3 5 5 3 11 2 5 17 7 5 8 9 2 13 10 2 3
 1 2 10 14 15 13 12 17 21 9 8 19 15 23 8 11 10 24 10 13
 11 22 x
 x x x x x

3 3 x 3.91 28 39 1.22 -13 25 331 123 94 114 60 70
 70 64 67 57 36 21 110 19 21 21 27 12 37 96 44 70 85
 13 3 15 27 57 0 2 3 3 2 3 0 4 5 6 7 2 7 4 6 6 47 16
 3 2 16 3 20 23 16 29 8 7 7 17 24 -14 5 11 8 51
 8 5 19 19 25 6 24 21 17 13 8 6 3 1 3 5 8 3 1 3 1 2
 10 5 4 1 1 6 0 0 0 1 2 1 1 6 5 1 5 0 9 3 3 2 8 3 2 3 2
 6 3 6 8 7 12 5 5 1 3 9 1 11 5 5 4 10 5 6 4 5
 47 16 5 2 1 1 1 1 2 1 2 2 3 1 2 2 2 2 2 2 2 6 1 3 6 1 2
 41

4 3 98 2.62 35 22 .95 -16 26 401 138 134 132 83 83

74 84 77 27 14 13 148 20 22 8 14 36 70 114 52 95 100
 11 5 20 35 69 0 2 2 4 6 5 3 0 0 5 5 3 7 5 7 7 42 12
 5 3 25 0 17 24 15 25 13 4 3 16 11 -22 2 15 4 50
 11 2 9 20 26 1 22 17 23 18 4 8 2 1 0 6 9 0 0 4 1 4
 11 3 2 1 2 9 0 1 0 2 0 0 2 3 8 1 0 2 5 1 2 1 2 7 2 2 3
 5 1 2 13 1 11 0 3 0 0 1 1 7 1 2 0 1 1 0 2 2
 42 12 2 1 2 6 1 1 1 2 1 3 3 1 2 1 1 1 1 2 3 1 2 1 1 1 1
 37

5 3 119 3.77 27 42 1.3 16 34 392 142 113 133 78 70
 74 84 86 60 40 20 164 41 14 7 8 30 63 101 31 84 92
 7 10 17 24 104 1 2 3 5 2 2 0 4 5 7 7 5 5 7 7 7 x 17
 1 5 14 2 17 17 13 22 5 8 9 17 27 -9 8 12 8 49
 10 5 22 17 24 12 20 27 22 12 5 6 2 4 2 4 3 2 2 4 1 2
 9 4 3 1 0 2 1 0 1 3 1 0 0 6 4 3 5 4 10 5 6 1 6 5 2 0 2
 4 5 6 11 5 12 10 7 1 3 10 5 13 3 5 3 11 5 4 6 8
 x

6 3 105 3.47 29 24 .88 -8 26 343 122 110 111 67 72
 69 68 67 31 20 11 92 6 27 26 29 12 55 92 53 81 80
 13 2 15 28 132 0 1 4 5 1 4 0 2 1 7 7 2 6 6 x x 82 13
 8 6 22 5 23 26 22 30 12 11 9 16 30 -16 7 22 11 45
 9 7 15 18 24 12 20 20 21 20 10 9 3 4 1 6 6 4 2 6 2 5
 10 6 4 1 4 5 2 1 2 4 1 0 0 5 5 3 7 5 12 3 6 3 4 4 7 3
 2 7 10 5 13 5 12 8 11 4 5 5 3 11 7 6 5 11 5 4 5 6
 82 13 6 5 2 7 5 2 3 2 2 6 2 2 6 5 2 3 1 3 2 3 3 3 5 2 2
 70

7 3 97 3.94 23 36 1.03 -15 27 357 131 115 111 73 72
 73 72 67 40 26 14 89 4 37 23 28 8 54 95 49 76 80
 18 5 21 37 32 0 2 2 5 6 3 4 4 5 7 7 3 5 6 6 6 60 19
 2 2 16 4 19 22 11 32 10 10 6 9 27 -14 5 21 14 47
 10 13 16 20 26 8 20 26 19 16 8 7 1 2 1 4 9 2 0 5 0 2
 8 5 3 1 2 5 1 1 0 1 1 1 0 3 2 1 7 4 12 4 3 1 10 1 6 2
 4 6 12 4 10 6 12 5 5 0 3 7 11 8 3 9 2 8 4 4 5 10
 60 19 6 3 2 3 1 2 2 2 2 2 2 2 3 3 2 2 3 2 2 3 2 3 2 2 2
 47

8 3 121 4 32 23 .97 -12 16 376 131 120 125 82 73
 74 76 71 38 22 16 115 8 32 13 27 20 70 103 50 81 94
 17 0 24 48 23 0 1 2 5 1 5 0 2 2 7 7 6 6 6 x x 40 11
 4 3 19 0 14 17 15 23 4 2 6 17 28 -16 2 23 4 50
 8 6 12 17 25 8 22 19 22 17 3 4 1 0 0 5 6 0 0 4 0 5
 11 6 3 1 1 1 1 2 0 2 0 0 0 4 7 5 1 5 13 1 4 3 6 1 5 3
 4 6 10 1 12 2 12 9 6 0 1 4 1 7 2 7 1 9 0 0 1 3
 40 11 7 1 2 2 1 1 1 1 2 3 2 1 2 1 2 1 1 1 1 1 1 1 1 1 2
 30

9 3 79 3.88 34 35 1.14 10 30 376 123 132 121 83 82
 71 76 64 49 24 25 132 27 18 18 14 23 66 95 52 83 92
 11 9 19 29 49 0 2 4 5 6 5 5 1 0 7 7 4 4 6 7 7 x 25
 5 6 15 7 16 15 13 22 9 18 12 19 24 -9 13 15 14 45
 7 12 15 17 21 11 21 27 22 17 6 1 4 3 2 4 2 3 3 2 1 6
 11 7 5 1 3 4 3 1 3 6 0 2 0 5 5 5 7 1 9 4 5 3 9 1 3 0 2
 4 5 7 9 7 11 12 16 8 2 11 0 16 8 7 8 17 6 5 7 8
 x

10 3 118 3.03 29 33 .59 -32 32 334 115 109 110 74 70
 64 57 69 48 23 25 77 4 23 31 28 14 47 93 47 68 79
 19 12 11 10 132 0 2 3 5 3 4 4 4 2 7 4 2 7 6 6 7 64 16
 1 9 11 3 11 17 21 21 5 12 22 23 24 -2 12 14 13 45
 7 12 17 22 23 12 18 28 22 12 7 4 3 4 2 4 3 5 1 2 5 3
 9 7 6 1 1 3 7 1 1 3 3 1 0 9 3 6 6 2 10 2 7 2 11 2 3 2
 3 4 7 6 7 8 12 9 7 3 11 14 5 15 3 7 5 14 6 9 11 10
 64 16 7 2 2 5 1 2 2 2 2 3 2 2 3 3 3 3 2 2 2 3 2 2 2 2 3
 50

11 3 98 3.26 37 26 .93 -19 28 385 137 120 128 75 83
 76 75 76 31 20 11 127 13 28 12 21 26 72 104 48 93 90
 13 5 25 45 74 1 2 2 5 2 4 0 12 2 7 5 7 7 7 7 7 53 18
 4 3 14 4 18 24 12 21 6 7 4 14 31 -11 4 20 6 51
 13 9 15 18 28 6 20 20 18 13 5 6 3 2 1 4 6 5 1 6 2 4
 8 2 2 1 0 4 0 1 0 2 1 0 1 4 2 4 7 6 12 3 5 1 6 3 2 3 4
 6 17 3 3 3 12 8 6 0 2 6 3 11 5 10 5 10 4 3 4 3
 53 18 3 2 3 2 1 1 7 2 1 5 2 1 5 2 1 1 3 2 1 2 1 2 1 1 1
 40

12 3 143 2.80 26 35 1.1 -14 40 376 137 115 124 72 81
 77 70 76 59 34 25 149 18 34 3 11 34 62 111 45 88 85
 10 7 20 33 15 0 2 1 5 5 3 5 0 3 7 7 3 4 5 7 7 45 20
 5 3 14 5 16 18 11 27 8 11 6 14 27 -11 12 15 10 46
 6 11 21 17 23 13 19 21 25 13 2 5 4 1 0 4 5 1 1 5 1 3
 8 6 1 0 5 2 2 2 1 3 0 0 0 5 2 3 8 5 12 2 6 1 7 5 2 2 5
 4 13 3 9 5 12 9 6 2 4 4 5 11 9 9 6 15 4 1 4 3
 45 20 5 2 3 3 1 1 1 1 2 3 3 2 2 1 1 1 2 2 2 1 1 2 1 1 1
 37

13 3 123 3.31 25 23 1.03 -1 25 357 130 103 124 79 75
 62 75 66 56 31 25 135 21 21 12 20 26 61 98 49 78 84
 11 3 20 37 45 0 2 2 5 5 5 4 4 2 7 5 2 6 7 7 7 x 19
 9 5 17 2 26 21 17 28 8 14 13 18 35 -12 10 22 10 45
 11 12 22 14 25 9 15 17 25 14 12 10 2 3 4 2 8 2 1 6 1 4
 4 6 7 1 1 6 3 2 0 3 3 3 2 5 3 3 14 5 11 2 2 2 7 3 4 2
 4 8 17 8 11 7 11 7 8 3 3 4 6 9 2 15 4 12 8 3 5 6
 x

14 3 112 3.77 24 31 1.34 24 30 370 134 117 119 70 75
 74 75 76 41 25 16 123 22 30 10 27 11 67 104 52 79 81
 16 13 21 29 13 0 1 2 5 1 4 0 6 5 7 6 4 6 6 x x 43 11
 2 2 19 1 16 17 16 21 10 8 6 15 24 -17 6 16 7 51
 11 3 18 21 23 10 27 24 24 16 4 6 2 2 1 5 8 0 0 2 0 4
 10 5 2 2 2 5 1 2 0 3 0 0 0 4 5 3 4 2 8 2 7 2 5 6 6 1 2
 3 6 3 14 2 12 7 7 0 2 8 2 10 2 5 1 9 4 1 2 5
 43 11 3 1 1 3 1 2 1 1 1 2 2 1 2 2 2 2 2 2 2 2 1 2 1 2 2
 38

15 3 129 3.81 30 31 1.21 10 36 316 108 93 115 67 63
 60 57 72 67 41 26 101 14 28 24 23 11 55 88 55 65 70
 11 15 8 1 26 0 2 2 5 3 5 4 5 5 7 7 4 4 5 7 7 83 14
 2 13 18 12 16 25 21 26 13 13 18 24 22 -5 9 12 17 43
 10 8 19 17 12 16 23 30 32 18 4 4 5 2 1 4 4 5 6 4 5 8
 9 4 4 2 5 4 5 1 1 2 3 4 1 8 5 5 7 0 7 2 5 2 0 4 2 2 2
 4 7 3 14 7 12 11 12 7 9 8 4 17 9 7 14 10 4 7 12 4
 83 14 7 2 2 5 3 2 6 5 6 5 2 3 3 3 3 3 3 3 1 3 3 2 6 2 1
 66

16 3 127 3.55 24 33 .97 -7 21 339 117 107 115 66 73
 70 62 68 29 16 13 92 6 32 25 26 11 57 95 59 82 78
 17 5 17 29 31 0 1 4 4 1 3 0 2 5 6 6 6 5 6 x x 71 23
 3 8 20 2 21 22 14 28 8 13 12 10 25 -12 11 22 14 48
 11 10 23 18 24 13 20 22 21 19 8 7 2 3 3 5 7 2 1 5 0 2
 9 4 3 1 3 3 4 1 0 4 0 0 0 2 4 2 5 3 10 3 3 2 10 1 7 1
 4 6 12 9 10 6 12 8 9 1 3 7 9 7 5 8 3 10 5 5 8 12
 71 23 6 6 3 7 2 2 3 2 2 3 2 2 3 2 2 3 5 1 1 2 3 3 3 2 2
 59

17 3 114 3.15 26 37 1.25 6 24 321 118 96 107 67 67
 64 61 62 31 22 9 83 0 48 19 31 2 52 93 54 66 81
 7 15 9 3 26 1 2 2 5 3 5 2 6 2 7 4 2 6 5 4 6 68 18 3
 4 13 6 13 22 17 27 9 15 25 28 17 -9 12 13 14 40 8
 8 14 20 25 13 20 25 28 18 3 4 3 1 2 6 5 0 5 4 2 5 10
 6 5 2 2 3 4 0 2 1 6 9 4 9 3 6 5 1 5 3 6 2 7 7 4 2 2 4 5
 6 12 6 12 12 19 13 5 12 6 15 4 1 4 16 6 5 13 10
 68 18 7 3 2 5 3 3 2 5 1 3 3 2 2 2 2 2 2 2 2 2 2 5 2 1
 53

18 3 103 3.90 28 48 .88 14 20 410 140 138 132 81 83
 84 81 81 27 17 10 163 34 16 5 11 34 59 102 41 84 87
 7 8 15 22 42 0 1 1 4 1 2 0 3 2 7 5 2 6 6 x x 50 22 1
 3 17 1 20 19 15 28 8 12 5 17 29 -14 7 18 12 51 9
 9 24 16 20 9 19 22 19 16 11 4 2 2 3 5 6 2 0 4 0 5 7
 6 3 1 2 4 0 1 0 2 0 0 2 0 4 4 8 3 11 3 4 1 5 3 3 3 5 8
 11 3 8 10 12 7 5 0 1 5 8 6 1 15 1 7 7 3 4 8
 50 22 5 1 1 2 1 2 3 2 2 1 3 2 2 1 3 3 1 1 1 2 3 2 2 1 3

38

19 3 83 2.67 34 26 .95 24 28 414 142 139 133 85 84
 80 85 80 22 12 10 160 21 24 4 8 43 73 114 45 96 104
 11 10 12 14 9 0 1 2 5 1 3 0 3 2 7 5 3 6 6 x x 77 17
 8 5 25 1 21 24 21 25 12 3 4 13 22 -20 2 23 4 53
 14 5 8 21 25 4 21 16 22 15 6 7 3 2 2 6 9 0 0 4 0 7
 9 4 3 1 2 8 0 1 0 1 1 0 3 3 4 1 3 3 12 3 1 2 6 3 2 3 3
 7 7 2 6 2 11 3 3 1 1 0 3 6 2 6 0 0 2 0 2 3
 77 17 3 3 3 3 3 3 3 3 3 5 3 3 3 3 3 3 3 3 3 3 3 3 3 3
 65

20 3 104 3.74 34 43 .85 -12 36 354 127 114 113 78 73
 67 69 67 53 29 24 115 16 25 20 20 19 45 97 43 69 80
 11 2 17 32 80 0 2 3 5 5 3 2 1 2 7 7 7 6 5 7 7 61 19
 5 2 19 2 17 17 19 32 6 4 7 14 27 -17 5 9 8 47
 7 7 15 20 22 5 24 26 21 16 6 4 3 2 0 3 6 2 1 3 2 7
 10 5 1 0 3 2 1 2 0 3 0 0 1 4 4 3 7 4 11 4 5 0 9 7 4 3
 3 4 9 4 15 2 12 7 6 1 5 10 1 9 3 11 4 11 3 4 0 2
 61 19 5 2 3 2 1 2 2 1 3 2 3 3 5 3 3 1 3 3 2 2 1 2 2 2 3
 49

21 3 108 3.81 26 25 1.05 -3 13 373 133 123 117 71 76
 74 81 71 35 21 14 116 9 33 14 27 17 68 101 47 87 96
 18 9 22 35 16 0 1 3 6 1 5 0 2 2 7 5 6 6 6 x x 79 19
 4 6 15 4 20 22 14 26 9 10 11 14 26 -9 6 15 10 52
 6 7 17 18 22 9 19 26 23 14 8 7 2 5 2 3 6 2 4 5 1 6
 7 4 2 0 3 4 0 1 2 5 3 1 1 8 1 3 9 2 8 5 3 2 11 4 5 3 3
 4 10 5 9 6 12 9 5 6 4 11 4 15 1 12 3 5 4 7 3 7
 79 19 5 3 1 6 6 3 1 3 3 6 3 3 2 2 3 3 3 2 3 2 1 6 3 3 3
 68

22 3 107 3.27 29 34 .85 -8 26 353 127 110 116 71 73
 64 73 72 28 17 11 99 8 31 19 32 10 52 103 45 77 78
 15 0 22 44 66 0 2 2 4 5 3 4 3 5 7 2 3 6 6 6 6 x 18
 3 5 15 14 21 29 15 31 12 14 9 17 24 -10 15 23 21 40
 10 12 25 15 23 7 22 25 19 15 8 6 6 4 2 4 6 5 7 5 0 4
 9 4 3 1 3 7 2 0 0 2 1 1 1 7 4 2 8 4 8 3 5 2 9 5 7 2 4
 5 9 9 16 8 12 7 9 10 5 4 11 12 7 11 14 5 6 4 8 12
 x

23 3 102 3.31 32 33 1.06 -2 18 423 146 139 139 86 88
 77 82 90 30 14 16 177 37 15 1 6 41 71 115 39 100 103
 8 10 9 8 101 0 2 3 4 3 5 4 10 2 7 7 7 7 7 7 7 43 13
 8 3 16 4 20 23 14 30 13 9 6 21 19 -13 14 13 18 49
 9 7 20 16 21 3 26 26 26 15 9 6 2 4 3 5 9 0 3 3 0 6
 11 4 3 1 3 7 0 0 0 3 0 2 2 5 5 5 4 2 10 5 4 2 6 3 2 2
 4 8 5 7 8 8 11 5 10 6 3 7 4 14 3 4 0 4 8 5 4 12

43 13 7 1 1 2 1 1 3 3 1 3 1 1 3 1 1 2 3 1 1 1 1 1 1 1 1
31

24 3 103 2.42 46 32 1.28 14 30 364 140 109 115 73 75
66 70 80 55 36 19 137 27 30 5 8 36 71 97 44 80 95
7 5 16 27 73 0 2 4 5 5 4 4 8 2 7 7 7 7 1 7 7 67 20 6
5 17 5 20 19 16 25 6 7 5 14 31 -12 6 15 6 47 8
6 20 17 23 8 21 24 29 13 6 7 5 1 3 4 5 3 1 4 1 3 7
6 6 1 2 2 0 0 0 0 0 2 1 4 5 1 8 4 12 4 4 2 5 7 1 2 4 3
6 6 9 5 12 5 4 3 2 6 1 14 4 8 3 6 3 5 5 2
67 20 1 6 3 5 1 5 1 1 3 3 2 1 3 2 2 2 7 1 2 6 3 2 3 1 2
55

25 3 109 2.77 23 30 1.42 7 25 341 128 104 109 67 74
69 68 63 60 36 24 92 9 33 29 17 12 57 94 53 75 83
10 4 10 16 47 0 2 3 5 2 2 0 6 2 7 6 5 5 4 7 7 61 17
3 8 10 7 16 17 17 26 5 13 15 21 33 -2 13 16 9 43
7 12 20 13 21 13 23 23 23 13 8 5 3 3 0 2 3 4 5 1 2 5
8 9 7 2 2 0 3 1 2 4 1 2 2 8 3 6 14 3 11 3 8 4 7 6 6 1
2 4 12 7 15 5 12 14 15 7 5 10 4 14 5 10 8 19 4 8 10 6
61 17 5 3 3 3 1 3 1 1 2 3 2 2 3 3 3 3 3 3 3 2 1 3 3 2 2
52

26 3 119 3.76 28 34 1.25 10 26 332 129 97 106 62 67
68 70 65 49 34 15 90 9 32 27 24 8 55 95 46 69 78
13 5 13 21 122 0 2 3 5 3 5 3 4 2 7 7 5 6 6 5 6 70 19
3 3 19 8 20 27 16 31 12 16 10 17 26 -16 13 16 19 43
6 11 24 19 22 5 21 25 22 13 8 6 4 2 2 4 9 3 4 4 1 6
7 5 3 2 3 6 3 2 0 3 0 0 1 5 3 4 9 2 10 2 3 1 7 3 4 3 4
6 10 6 14 5 12 5 10 4 3 9 5 11 7 9 10 7 6 4 10 9
70 19 5 6 5 2 1 1 2 2 2 3 3 2 5 2 2 2 6 2 3 2 2 3 2 3 3
61

27 3 118 2.09 27 35 1.15 2 16 394 139 130 125 78 83
81 76 76 38 19 9 141 23 29 6 18 24 80 107 39 88 94
12 5 26 47 75 0 2 2 5 3 4 4 5 2 7 4 5 5 6 7 7 40 15
7 1 17 1 12 21 8 23 5 4 3 13 29 -16 2 18 1 52
11 2 8 17 28 6 24 24 19 17 2 5 1 0 0 4 9 1 0 4 1 4
8 3 2 1 1 3 1 1 0 1 0 1 0 3 4 3 5 6 12 1 4 3 3 4 4 3 3
5 13 1 10 0 12 9 6 0 2 3 0 10 1 9 1 9 0 0 2 1
40 15 3 2 3 1 1 1 1 1 1 2 1 1 2 3 2 2 3 1 1 2 2 1 2 1 1
34

28 3 138 2.68 26 36 1.11 2 32 326 132 79 115 74 69
61 61 61 76 55 21 122 20 25 19 15 21 40 102 51 64 76
9 4 12 20 25 0 2 2 4 6 2 1 4 2 7 7 2 2 6 6 7 66 26 3
8 13 7 22 19 27 32 11 26 30 18 44 -5 27 16 25 35 8
14 34 10 23 12 15 25 20 16 13 7 3 6 3 1 3 6 3 3 4 6 5

11 8 4 3 4 8 2 5 7 5 3 0 7 2 3 19 2 12 6 9 5 12 6 3 1 2
 5 16 15 12 14 10 9 17 7 7 11 9 11 5 14 5 18 16 13 13 17
 66 26 2 2 3 2 3 3 1 1 1 6 3 2 3 5 1 2 2 1 1 3 3 2 5 4 2
 54

29 3 125 3 24 31 .73 -26 40 372 133 120 119 76 83
 71 73 69 39 20 19 111 9 23 26 14 28 46 103 47 87 85
 16 1 22 43 14 0 2 2 5 3 4 5 3 5 7 6 3 6 6 7 7 47 19
 2 3 21 6 21 23 18 24 8 6 11 16 33 -18 7 15 9 48
 7 10 14 16 23 8 19 21 18 17 7 8 4 3 0 5 7 3 4 2 3 3
 9 4 2 1 2 5 1 1 2 4 0 1 1 6 4 3 9 3 13 3 6 5 7 2 3 1 4
 5 11 1 10 3 12 6 8 5 3 5 4 12 7 6 6 6 2 4 5 3
 47 19 3 3 2 2 1 7 1 2 1 2 2 2 2 2 1 1 3 1 1 1 3 2 1 1 1
 36

30 3 147 3.28 28 34 1.47 4 26 366 127 114 125 79 76
 66 74 71 42 23 19 130 21 27 11 21 20 66 98 53 83 84
 11 3 24 45 86 0 2 2 4 5 3 3 2 4 7 7 6 4 6 6 7 x 22
 3 4 18 2 17 20 14 19 8 11 10 17 30 -14 11 21 9 48
 13 12 16 17 21 6 21 26 24 14 8 7 2 2 2 6 6 2 1 3 2 5
 11 5 3 1 1 5 2 1 0 3 1 1 1 5 6 3 4 8 12 2 3 2 7 4 3 2
 4 5 13 7 9 5 12 9 6 3 1 8 6 14 2 8 3 7 8 5 8 5
 x

31 3 116 3.02 28 25 1.22 7 29 371 132 113 126 72 82
 67 73 77 40 22 18 127 18 29 11 22 20 69 99 50 87 83
 15 5 24 43 50 0 2 3 4 4 4 3 5 2 7 6 5 5 6 7 7 66 16
 5 2 16 2 18 19 14 28 6 11 3 17 37 -14 9 13 17 48
 9 9 21 18 28 12 18 25 25 16 6 6 3 1 2 3 5 1 3 5 1 4
 6 5 3 2 2 2 1 0 0 0 2 1 2 6 2 3 13 6 12 4 8 2 8 4 3 3
 5 5 13 4 9 6 12 10 8 3 3 2 9 16 1 13 5 15 4 3 2 11
 66 16 5 3 3 6 1 2 1 3 2 5 3 2 2 2 2 2 3 2 2 2 1 2 3 6 2
 57

32 3 119 3.88 33 28 1.48 2 32 376 133 127 116 78 75
 72 76 75 40 24 16 114 11 38 12 14 25 67 103 48 88 90
 13 5 23 41 60 0 2 2 5 6 6 1 5 2 7 6 2 6 5 7 7 63 16
 5 4 24 2 19 21 16 22 13 6 9 14 15 -20 6 17 6 49
 9 5 15 18 22 2 22 18 21 16 6 8 3 1 0 5 9 0 0 5 0 4
 9 1 1 0 4 8 2 1 0 2 1 2 1 5 6 1 1 2 7 2 2 1 5 3 2 3 2
 5 2 3 11 4 12 2 7 3 1 5 9 9 3 5 0 5 1 3 4 5
 63 16 7 3 3 1 1 3 1 1 3 3 3 3 2 3 3 3 3 1 1 3 3 1 3 3 3
 50

33 3 92 3.77 27 25 1.08 -5 19 385 132 128 125 81 76
 78 75 75 31 16 15 126 13 32 8 26 21 72 103 51 89 94
 17 5 25 22 145 0 2 3 5 4 5 5 7 5 6 6 6 6 6 6 7 x 16
 2 1 21 2 14 21 17 29 12 6 6 17 17 -20 4 14 8 53

8 5 11 20 26 3 23 21 22 17 3 4 3 0 1 6 9 0 0 3 1 5
 9 5 2 1 3 7 2 1 0 1 1 0 2 4 6 2 2 1 9 1 0 1 6 6 2 2 4
 7 6 3 12 1 11 4 7 0 5 4 6 11 3 5 0 5 1 1 6 4
 x

34 3 113 3.65 23 27 1 -9 15 413 144 133 136 85 89
 84 78 77 33 17 16 165 29 18 4 9 40 77 115 46 96 94
 7 7 12 17 31 0 1 3 5 1 x x x x x x x x x x x 11
 10 3 21 0 16 20 10 31 13 5 5 10 30 -18 4 25 7 54
 10 6 14 19 29 2 17 19 20 19 4 6 2 0 0 2 9 0 1 6 1 2
 5 2 2 1 3 9 1 1 0 1 0 1 0 2 2 2 7 4 13 1 2 1 3 5 6 3 4
 7 13 1 14 1 12 1 5 2 1 2 1 7 1 8 0 4 0 2 3 3 x x
 x

35 3 117 3.43 34 29 1.16 4 26 366 136 107 123 71 78
 71 74 72 42 30 12 117 13 34 13 23 17 62 106 51 83 95
 15 1 22 43 23 0 2 3 5 3 3 2 6 4 7 7 4 6 6 7 7 67 16
 5 6 19 3 19 21 19 28 12 7 5 13 20 -13 2 21 6 51
 11 6 13 20 25 8 24 22 22 18 7 6 3 1 2 6 7 1 1 4 2 5
 9 3 3 1 5 4 0 1 0 1 0 1 1 4 5 1 2 3 12 3 2 2 5 4 3 3 4
 8 8 3 8 5 11 5 7 3 2 3 5 8 1 7 2 3 2 4 4 4
 67 16 5 3 3 2 1 3 1 1 1 3 3 3 5 3 1 3 3 3 3 3 3 3 3 3
 56

36 3 155 3.74 29 36 1.12 4 26 308 11 89 108 66 63
 54 63 62 37 23 14 63 2 32 41 23 2 45 86 52 67 67
 6 20 7 -6 90 1 2 1 4 3 5 4 1 4 7 3 5 4 6 6 7 59 20 2
 4 15 1 24 24 19 40 7 15 10 16 32 -11 12 20 18 46 9
 15 27 18 23 10 20 29 17 17 11 8 2 4 5 6 6 4 0 5 3 3 8
 4 5 0 3 3 3 1 1 1 2 0 0 6 4 2 7 6 12 6 4 3 9 7 5 1 4 5
 13 10 17 9 11 7 8 2 7 6 6 10 5 8 2 6 14 9 8 11
 59 20 6 2 2 3 1 2 5 2 2 2 2 2 2 2 2 2 2 1 2 2 6 6 2 2 2
 49

37 3 109 3.10 35 28 1.11 -5 21 379 135 119 125 78 77
 71 73 80 30 19 11 115 11 32 16 21 20 70 103 49 82 95
 17 2 23 44 84 0 2 4 5 4 4 4 8 1 7 7 2 7 7 7 7 48 14
 1 2 18 0 12 21 12 25 8 5 4 14 17 -16 7 19 8 54
 9 5 13 20 27 2 24 27 20 16 2 4 2 0 0 6 8 0 1 4 1 5
 11 5 2 1 1 6 0 1 0 1 1 0 1 5 3 2 3 1 7 2 0 0 6 4 5 1 3
 5 2 2 12 4 12 4 6 1 3 7 1 13 0 4 0 5 2 4 5 5
 48 14 3 1 2 3 1 3 1 1 1 3 2 3 3 3 2 2 3 2 2 1 1 2 1 1 2
 41

38 3 123 3.36 28 32 1.09 -12 40 362 129 111 122 68 70
 62 80 82 47 23 24 151 32 20 8 31 18 63 102 42 86 84
 11 7 19 34 115 0 2 3 4 6 4 3 5 5 7 6 4 6 6 3 6 54 19
 4 7 19 4 16 22 18 27 12 15 13 19 28 -12 15 15 20 45

11 10 29 20 24 11 18 26 20 17 6 4 2 2 3 6 7 3 0 5 2 4
 11 6 3 3 4 4 3 3 2 2 2 1 0 5 4 5 6 3 10 3 9 4 9 5 3 2
 4 6 6 10 13 11 12 6 10 4 2 8 6 10 4 6 6 8 8 5 8 12
 54 19 5 1 1 3 1 3 2 5 1 1 3 3 3 1 1 3 3 1 1 1 5 1 3 1 2
 44

39 3 156 3.46 35 31 1.23 8 28 366 126 118 122 75 80
 66 71 74 39 20 19 115 16 30 18 19 17 64 93 48 91 78
 14 4 23 30 63 1 2 3 5 2 5 0 5 2 7 7 4 6 7 7 6 62 18
 5 3 21 5 16 20 14 30 9 8 5 9 27 -18 12 18 11 49
 9 8 19 16 25 11 20 21 19 16 3 7 2 0 0 4 6 1 3 4 1 2
 8 3 2 1 4 3 0 1 0 1 0 0 0 1 5 2 9 4 12 4 8 1 8 4 6 2 4
 5 10 3 15 7 12 5 8 3 2 8 6 8 2 9 4 7 4 4 6 4
 62 18 6 3 2 5 2 1 1 5 3 3 3 3 5 2 1 1 2 1 2 2 2 2 1 3
 55

41 3 118 3.63 24 32 1.11 2 24 352 125 113 114 77 68
 67 76 64 35 17 18 99 9 33 22 24 12 61 93 51 76 85
 11 1 17 33 8 0 1 2 5 1 3 0 0 0 7 4 4 3 7 x x 62 16
 5 6 21 1 14 18 16 24 8 6 12 13 27 -15 5 19 9 47 8 9 22
 17 21 10 20 19 20 17 5 6 1 1 0 4 6 0 1 5 2 4 6 4 2 1 2
 3 8 1 0 2 1 1 2 4 2 3 9 4 9 1 4 3 5 5 4 1 2 5 14 2 13 3
 12 9 4 1 3 7 5 8 1 13 1 4 2 2 4 3
 62 22 3 5 3 3 1 1 1 2 1 5 1 2 3 3 3 2 5 1 2 5 2 3 2 2 3
 53

42 3 110 3.25 29 29 1.1 2 36 326 116 99 111 72 57
 66 71 60 46 26 20 83 7 28 31 27 7 66 91 52 64 86
 15 14 8 2 144 0 2 2 4 3 2 3 2 2 7 6 5 5 4 6 6 x 24
 3 8 15 4 21 19 24 34 10 9 8 19 34 -7 9 18 10 46
 9 8 20 17 22 9 19 28 23 16 9 5 3 0 2 3 6 3 3 3 3 7
 8 12 7 2 2 4 6 0 0 0 0 0 2 6 2 4 10 6 13 2 3 4 7 6 5 2
 5 5 17 8 15 4 12 8 11 3 9 6 4 13 4 13 3 15 5 4 5 8
 x

43 3 148 3.65 24 40 1 12 28 329 123 103 103 68 68
 66 60 67 42 28 14 92 7 31 24 29 9 46 93 48 72 79
 12 2 11 20 34 0 1 2 2 1 0 0 1 5 7 3 2 6 4 x x 59 22
 1 4 13 2 15 18 21 31 12 18 18 22 23 -9 20 13 21 48
 6 14 25 18 21 12 18 30 20 13 8 2 3 2 3 3 3 4 1 4 4 4
 9 8 7 1 3 5 5 2 0 1 4 2 2 7 3 6 8 4 6 6 4 3 11 6 4 1 1
 3 8 9 12 10 12 11 10 4 8 15 8 19 3 10 3 12 11 12 10 16
 59 22 6 2 2 1 1 5 2 2 3 1 3 2 1 5 2 3 2 2 1 1 1 3 5 2 2
 46

45 3 141 2.89 26 29 1.15 -4 22 360 132 112 116 75 78
 69 70 78 37 23 14 99 6 35 24 18 17 59 98 53 80 87
 16 0 22 44 57 0 1 4 5 1 4 0 0 1 7 7 4 7 6 x x 55 12

4 7 18 2 15 20 16 24 9 6 11 14 21 -11 6 15 6 45
 8 7 15 16 19 9 18 21 25 15 4 6 2 1 1 5 9 1 1 2 2 6
 9 5 5 0 1 7 2 1 2 3 1 1 0 6 3 3 7 2 8 3 4 2 5 3 5 2 3
 4 8 4 11 4 12 6 4 2 5 4 4 12 3 6 1 7 4 4 8 5
 55 12 6 5 2 5 3 1 1 1 2 2 2 2 2 2 2 2 2 2 1 3 2 2 1 1 2
 45

46 3 128 3.87 24 35 .97 2 28 380 136 118 126 70 77
 72 77 84 36 20 16 136 23 23 10 21 23 63 104 39 91 78
 13 5 28 51 77 0 2 2 5 5 6 2 0 0 7 7 7 7 7 1 7 34 20
 5 4 12 4 16 22 17 35 13 15 19 25 25 -8 13 14 13 51
 9 8 17 18 22 9 25 24 24 14 5 3 5 4 1 6 4 2 3 5 3 5
 12 10 3 3 5 3 3 3 4 5 2 1 2 8 5 7 4 5 8 3 6 4 10 5 4 2
 5 4 6 7 16 7 12 10 15 6 7 14 5 14 5 5 4 15 7 8 13 8
 34 20 7 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 1 1 2 1 1 1 2 1
 24

49 3 102 3.20 29 37 .97 20 42 352 137 94 121 80 62
 63 72 75 63 38 25 140 27 18 14 14 27 53 95 43 72 82
 6 13 17 21 40 0 2 2 5 5 4 1 4 4 7 2 4 6 6 7 7 35 16 7
 5 18 2 15 22 12 28 12 13 13 20 25 -13 10 14 15 45 6
 9 23 15 23 7 22 21 24 19 5 7 2 2 2 5 7 1 2 5 1 4 7
 5 2 1 4 5 0 2 0 2 6 4 0 9 1 3 9 4 8 3 5 2 11 7 3 2 3 3
 8 6 14 7 12 6 8 8 4 7 6 16 1 10 2 6 7 7 6 9
 35 16 6 1 1 5 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 27

50 3 117 2.93 35 36 1.05 -7 23 365 131 110 124 75 64
 74 81 71 44 25 19 117 9 40 9 25 17 58 102 45 77 82
 17 3 28 53 70 0 2 1 3 4 3 4 10 2 7 7 4 4 6 5 5 x 25
 3 7 17 1 16 18 15 29 15 9 13 11 34 -10 5 20 5 49
 10 9 14 16 18 4 17 27 29 16 6 4 3 1 2 1 9 1 2 3 2 9
 4 3 3 0 4 9 3 2 1 3 1 1 1 4 3 2 13 8 11 1 0 4 8 3 3 2
 3 7 22 6 11 1 9 5 3 2 3 9 3 7 2 21 2 4 2 5 5 6
 x

51 3 95 3.50 28 23 .82 -16 24 352 131 106 115 72 75
 65 69 71 35 25 10 99 6 26 24 27 17 61 95 51 84 88
 17 1 21 41 131 0 2 3 6 5 4 4 4 5 7 5 7 7 7 4 6 51 14
 6 2 19 4 15 21 10 23 7 7 5 19 18 -17 5 14 5 51
 7 3 13 19 24 8 25 21 24 14 3 6 3 2 0 5 6 1 2 5 0 5
 10 2 1 0 3 3 0 1 0 2 2 1 1 6 5 4 1 6 10 4 4 1 7 4 2 1
 3 4 6 4 7 4 12 9 10 3 3 8 0 16 3 4 2 11 3 1 3 6
 51 14 5 3 1 3 3 2 1 2 1 2 1 2 2 2 2 3 1 2 2 2 2 2 2 2
 42

52 3 110 3.75 32 25 .93 17 25 391 139 128 124 81 80
 77 77 76 30 18 12 134 18 22 14 16 30 70 105 48 94 88

13 6 24 42 12 0 1 3 5 3 5 4 4 1 7 6 3 6 6 x x 38 16
 6 2 18 5 15 24 12 28 8 7 3 17 27 -16 2 19 9 51
 11 5 12 16 28 6 21 20 22 15 5 4 1 1 1 4 9 1 3 5 2 4
 9 5 3 1 0 6 1 1 0 1 1 0 0 5 4 5 8 4 10 3 3 1 4 4 5 3 5
 7 8 1 9 5 12 3 7 1 7 5 3 16 6 9 4 6 1 4 2 3
 38 16 5 3 2 1 1 1 1 2 1 1 1 1 2 3 1 1 1 1 1 3 1 2 1 1 1
 29

53 3 144 4 27 42 1.68 8 34 273 113 74 86 56 52
 54 57 54 55 41 14 79 9 33 39 10 9 37 83 56 48 62
 7 28 2 -24 16 0 2 1 4 3 5 3 0 0 7 5 7 2 5 7 7 87 28 2
 13 7 7 12 12 14 35 11 19 22 17 46 6 19 12 13 44 1
 15 31 15 21 16 20 24 22 12 8 4 1 1 1 0 2 2 3 2 2 4 5
 7 4 4 4 3 6 0 3 3 3 3 0 6 1 7 20 9 9 5 8 5 13 5 5 1 4 4
 22 10 13 11 12 11 19 9 5 21 13 16 10 23 8 20 10 16 12
 11 87 28 3 6 3 6 1 7 5 5 3 5 3 3 3 3 3 3 2 2 3 1 5
 3 6 2 2 72

54 3 94 2.88 30 23 1.12 3 15 433 148 139 146 89 87
 86 89 82 23 13 10 186 40 11 1 1 47 87 119 43 98 112
 2 36 3 -30 117 0 2 3 6 7 3 2 8 2 7 7 5 7 6 4 4 45 14
 10 1 21 1 16 24 11 30 11 4 4 19 22 -20 3 22 9 50
 11 6 10 21 28 4 21 17 18 19 4 6 2 1 0 6 9 0 0 5 2 4
 10 3 0 0 3 6 1 1 0 1 2 1 0 5 6 3 1 5 11 2 3 2 5 4 5 3
 4 8 6 2 11 2 12 4 9 0 2 1 2 10 3 4 1 6 1 1 3 5
 45 14 3 3 1 3 3 3 3 1 1 2 3 1 1 1 1 1 2 2 1 3 1 2 1 1 1
 33

55 3 99 3.09 41 23 .9 -15 19 356 125 115 116 72 73
 74 67 70 25 14 11 97 1 36 16 34 13 59 98 53 81 87
 20 6 19 32 34 0 2 1 5 4 4 4 13 3 5 5 4 6 6 4 7 56 19
 5 5 21 2 17 24 15 24 7 4 5 21 16 -16 4 16 4 51
 11 6 11 20 22 8 23 21 25 19 6 4 2 2 1 6 8 2 1 5 1 5
 11 5 4 2 2 2 1 1 1 2 0 0 1 5 5 6 2 2 7 6 4 2 7 5 2 1 4
 4 0 3 7 2 12 9 7 1 3 8 3 12 0 4 1 9 0 1 3 5
 56 19 7 5 2 2 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 1 7 2 1 2 2
 45

56 3 127 3.28 24 31 1.23 1 19 349 129 105 115 77 71
 75 55 71 59 33 26 111 15 27 22 18 18 66 98 46 69 93
 3 10 16 22 49 0 2 3 5 3 4 6 1 5 7 4 4 6 5 2 3 x 20 8
 8 20 3 17 23 20 29 10 12 9 23 25 -12 8 17 13 48 7
 11 24 17 22 10 20 20 25 21 6 8 1 4 1 5 7 1 3 5 2 5 9
 9 5 5 3 1 1 1 0 2 1 3 1 8 7 2 4 3 9 3 5 2 9 5 5 2 3 6 6
 7 11 11 12 8 12 8 6 8 4 17 4 7 2 12 6 4 5 9
 x

58 3 130 2.99 27 34 .6 -33 39 326 132 96 98 80 67

MMPI 177

57 60 62 16 48 28 143 24 9 16 16 35 36 99 39 58 68
 8 24 10 -4 106 0 1 3 5 1 6 0 3 2 7 7 5 6 4 x x 78 29
 1 10 13 2 24 16 19 31 13 22 17 16 42 -3 21 19 25 52
 6 12 31 18 22 12 16 28 13 13 12 8 1 3 6 1 6 2 1 3 5 3
 7 9 5 2 5 3 7 2 0 3 2 0 1 5 1 6 20 3 11 4 5 3 12 5 5 2
 3 7 17 14 8 11 12 5 11 2 6 13 12 13 5 19 4 10 11 11 6
 14 78 29 2 6 6 2 1 3 1 7 1 7 2 2 5 1 5 3 6 3 1 2 3 6
 5 2 3 77

59 3 x 3.29 28 30 .54 -15 33 301 112 92 97 63 63
 52 66 57 37 22 15 67 2 22 35 41 0 39 87 49 68 67
 10 24 8 -8 134 0 2 2 5 2 5 0 6 2 7 6 3 5 4 6 6 85 25
 3 6 13 18 30 35 26 27 15 27 22 16 36 -7 21 20 28 37
 11 18 30 17 24 6 18 28 16 14 16 7 5 9 4 3 6 9 9 5 2 8
 8 9 8 2 5 7 4 2 5 7 3 2 1 7 4 2 12 3 11 4 5 5 11 4 4 2
 4 6 14 13 9 12 12 8 8 16 4 9 4 12 11 12 16 10 16 9 10
 14 85 25 3 2 3 5 2 3 1 5 2 6 3 3 5 5 2 3 3 3 3 3 5
 3 5 3 5 76

60 3 125 3.35 28 29 0 49 49 293 102 91 100 63 57
 55 59 59 26 15 11 49 0 0 51 48 1 41 82 52 60 69
 10 59 2 -55 17 0 2 3 5 5 6 4 8 1 7 7 7 7 7 7 7 72 24
 2 3 13 7 13 25 21 29 10 12 16 24 24 -10 17 15 14 48
 9 11 23 17 23 11 19 26 23 16 6 6 2 1 3 5 7 2 4 5 7 7
 11 7 4 3 2 3 3 1 1 3 2 4 1 9 5 4 7 4 7 5 7 3 10 4 7 1
 3 4 6 10 12 8 11 11 13 9 9 6 5 14 3 5 8 12 8 4 11 8
 72 24 5 2 2 5 3 2 2 2 2 3 2 3 5 3 3 3 3 3 3 3 3 3 2
 61

Appendix H Vitae

RESUME FOR
J. ROSS NEDER
5627 S.E. Long
Portland, OR 97206

OBJECTIVE

To establish a Professional Christian counseling center for the Reedwood Church and the surrounding community

EDUCATION

Western Conservative Baptist Seminary, Portland OR M.A. June 1984

Educational Status Doctoral Intern in Clinical Psychology
degree to be conferred May 1986

PhD Dissertation: "Development of a Seminary Screening
Device Using 88 MMPI Scales, Sentence Completion,
Seminary Attrition Scale, Seminary Socialization
Scale and Demographics."
Completed October 1985

Idaho State University, Pocatello, ID Honors B.S. May 1982

Major: Psychology, Experimental and Physiological
Minor: Chemistry
Emphasis: Physics, Chemical Research, Physiology,
Calculus and Computer Operations

THERAPEUTIC EXPERIENCE (est over 2900 hours by May 1986)

Western Counseling Center May 1985 to present
Full time work with Christians in individual, couple
and family psychotherapy
Lutheran Family Service April 1984-May 1985
Work in individual Adult and Adolescent and Group therapies
(Supervisor Alan Holt)
Reedwood Counseling Feb 1984-May 1985
Individual therapy for Adult and Adolescent clients
(Supervisor Wayne Colwell)
Morrison Center, Adolescent Sex Offenders Dec 1983-Mar 1984
Day treatment experience with sex offenders
(Supervisor Lucretia Honor)
Portland Adventist Convalescent Center Sept 1983-Dec 1983
Individual therapy work with geriatric population
(Supervisor Sharon Nordlof)

PSYCHODIAGNOSTIC ABILITIES

Course work and experience in TAT, Bender, Berry, WAIS, WISC and
Binet
Expertise in MMPI clinical and subscales, TSCS and Rotter

MILITARY

United States Navy

1972-1978

Formal Training: Nuclear Power

Reactor control, operation, overhaul and maintenance

Electronics

Nuclear - Design, Overhaul, Calibration and Maintenance

Communications - Design and Maintenance

Leadership and Management

Experience: Supervised approximately 25 men in operations, electronics and navigation 1976-1978
 Worked as the Leading Petty Officer for the liaison office between Shipyard and Navy 1976
 Repaired, calibrated and modified electronics 1972-1974
 Fully qualified as a Reactor Operator 1973

HONORS

Psychology Graduate Fellowship at WCBS; responsible for teaching computer literacy and consulting on data analysis for dissertations June 1983-85
 Honors graduate from Idaho State University 1982
 Selected to work as assistant research chemist for sylation project at Idaho State University 1978-1980
 Selected to represent the Navy for the refueling operation of a ballistic nuclear submarine 1975-1976

HOBBIES

Stained glass design and construction
 Racquet ball, snow skiing
 Computers
 Classical and folk guitar

BIOGRAPHICAL BACKGROUND

Born January 3, 1954 (31), caucasian, 150 lbs, excellent health, athletically active, active in Church

REFERENCES

Dr. Rodger Bufford, Chairman, Department of Psychology, and Dr. Wayne Colwell, Professor of Psychology, both Western Baptist Seminary, 5511 S.E. Hawthorne Blvd, Portland, OR 97215. 503-233-8561
 Mr. Alan Holt, Intern Supervisor, Lutheran Family Service, 605 S.E. 39th Avenue, Portland, OR 97214. 503-231-7480
 Dr. Louis Foltz, Professor of Psychology, Warner Pacific College, 2219 S.E. 68th, Portland, OR 97215. 503-775-4366
 Dr. John Good, Holladay Park pastor, 503-287-1238

A

A, 107, 135
 Academic achievement, 9
 Adapted, 41, 42
 Adjusted, 42
 Adjustment problems, 8
 Age, 32, 55, 83, 85, 108, 135
 Age corrected, 120
 Aggression, 124
 AL scale, 130
 Alcohol, 130
 Aloyse, 21
 Altruism, 17
 Amoralism, 128
 Anger, 116
 Anxiety, 136
 Apathy, 136
 Appropriate/Inappropriate Behavior, 40
 Attendance, 57
 AUT, 126
 Authority Conflict, 127
 Autonomous, 24

B

Background inventory, 32
 Baptist Evaluation Instrument, 38
 Barry and Bordin, 25
 BEVIN, 28, 38
 Bier, 16
 Bizarre Sensory Experiences, 129
 Body Symptoms, 129
 Burn out, 2

C

CA, 107, 107, 109, 135, 139, 140
 Cardwell, 15, 16, 17
 Catholic, 16
 Catholics, 15
 Cattell's 16 PF, 19
 Census matched, 120
 Character disorders, 133
 Chemicals, 130
 Childers and White, 19
 Christian expectations, 126
 Christian Theological Seminary,, 16
 Christianity, 3
 Church attendance, 22, 32, 68

Clinical scales, 32, 80
 Cluster analysis, 11
 Cn, 123, 139, 140
 Cognitive dissonance, 132
 College education, 116
 Colligan et al., 81
 Colligan, Osborne, Swenson and Offord, 26
 Compassion, 130
 Completion of seminary, 21
 Composition of the test packet, 10
 Concordia, 19
 Confidentiality, 46
 Conflict management, 26
 Congregation's, 3
 Conscience, 116
 Coping/Adjustment, 40
 Corville, 15
 Credits, 55, 110

D
 D, 14, 20, 80
 D1, 107, 140
 D4, 50, 83, 112, 135
 D5, 109, 140
 Dallas sample, 81
 Dallas Seminary, 118
 Davis, 17
 Dean of Students, 44, 47, 114
 Defensive, 121
 Defensive posture, 115
 Defensiveness, 115, 117
 Demographic, 32, 55, 90
 Demographics, 11, 49, 67, 108
 Denial, 124, 133
 Denial of aggression, 125
 Denominations, 4
 DEP, 107, 126, 140
 Depression, 33, 136
 Depression scale, 127
 Devotional life, 32
 D0, 109, 126
 Dominance, 127
 Drop out, 7
 Dropouts, 14, 20
 Duke, 16
 DY, 107, 109, 139, 140

E

Educated people, 115
 Educated people, 116
 Education, 4
 Ego Strength scale, 130
 Emotional Alienation, 129
 Empathy, 130
 Energy, 129
 Energy Level, 24
 Enrollment, 4
 ES, 109, 130
 Es (a measure of ego strength), 16
 Exhibitionistic, 128
 Extrinsic, 40
 Extroverted, 128
 Extroverts, 35

F

F, 80, 109
 F scale, 33
 F-K, 107, 109, 139
 F-K score, 117
 Factor analysis, 18
 Fake bad, 117
 Fake good, 117
 Family devotions, 60, 69, 84
 Fear, 136
 Fear of rejection, 6
 Fehr, 13
 FEM, 130
 Feminine Interests, 130
 Fielder, 14, 15
 Finance, 68
 Financial condition, 32, 63
 Flatt, 25
 Flexibility/Rigidity, 40
 Frustration, 124
 Fundamentalist beliefs, 122

G

General population, 122
 Goal Orientation, 24
 God, 116
 God's call, 6
 Godfrey, 14
 Good health, 129
 Gossip, 116
 GPA, 8, 9, 12, 16, 21, 50, 55, 83, 109, 112

Grade Point Average, 8

H

Hathaway and McKinley, 32
 Hathaway and McKinley, 26
 Hathaway and McKinley's, 81
 High achievers, 9
 Hispanicus, 14
 Hoge, 26
 Hoge's, 22
 Homosexuals, 34
 HOS, 125
 Hospital, 119
 Hs, 80
 Hy, 80
 HY1, 107, 109, 126, 128
 HY2, 109, 123
 HY3, 107
 HY4, 107
 HY5, 124
 Hypochondriasis, 33
 Hypomania, 35
 Hysteria, 34

I

IBM XT, 49
 Importance of religion, 62, 108
 Incomplete Sentence Blank, 38
 Ingram, 16
 Inhibition, 131
 Insecurities, 124, 131
 Insight, 131
 Interpersonal relations, 24
 Intrinsic, 40
 Intrinsic religiosity, 22
 Introspection, 131
 Introverts, 35
 IQ, 39
 Item analysis, 36

K

K, 120, 121, 123, 139
 K scale, 33, 115
 Kennedy, 17

L

L, 32, 120, 140
L scale, 116
Lack of Ego Mastery, 129
Longitudinal data, 12
Loyola, 13
Lutheran pastors, 25

M

Ma, 14, 20
MA1, 126, 128
MA2, 129
Ma4, 84, 85, 124
MacAndrews Alcoholism scale, 130
Maehr and Stake, 19, 20, 25
Maladjusted, 42
Maladjusted seminarians, 3
Marital status, 32
MAS, 107, 140
Masculinity/Femininity, 34
Maximum, 70
Mayo norms, 80, 118
Mean, 70
Menges and Dittes, 7
Mental acuity, 112
Mental dullness, 135
Mental health, 130
Mental hospitals, 32
Mf, 13, 18, 25, 80, 130, 140
Mf scale, 16, 121
Mf) scale, 120
Mf6, 84, 85
Minimizing, 117
Minimum, 70
Ministerial appropriateness, 4
Ministerial personality, 7
Ministry, 1, 6, 121
Minnesota Multiphasic Personality Inventory, 32
Missionaries, 19, 38
MMPI, 11, 12, 13, 15, 20, 25, 27, 31, 32, 36, 43, 44, 46, 47, 49, 70, 83, 85, 87, 107, 108, 109
MMPI clinical scales, 118
MOR, 107, 129, 139
Moral responsibility, 25
Multiple criteria, 27

N

N size, 70
 Naive, 131
 Naively, 128
 Nauss, 25
 Newmark, 17
 NEWSSS, 107
 Norm groups, 118
 Norm sample, 113

O

O-H, 124
 Optimism, 126
 ORG, 107, 129
 Organic Symptoms, 129
 Overcontrolled Hostility, 124

P

Pa, 14, 140
 PA2, 129
 Paranoia, 34
 Pastors, 19
 Pd, 14, 16, 20, 20
 PD1, 107
 PD3, 107, 109, 126, 128
 PD4B, 107, 140
 Perfectionism, 35
 Persistence in seminary, 12
 Personal devotions, 68
 Personal fulfillment, 26
 Personal Devotion, 108
 Personal devotions, 58, 110
 PHO, 107, 140
 Pino, 15
 Poignancy, 129
 Poor Morale, 129
 Positive projection, 132
 PR, 107, 107, 109, 126, 135
 Predictive validity, 36
 Prejudice, 127
 Professional competence, 9
 Protestant churches, 26
 Psychasthenia, 35
 Psychomotor Acceleration, 129
 Psychopathic Deviant, 34
 Pt, 14, 17, 20, 107, 109, 135

R

Racial tolerance, 25
Range, 70
Rel, 140
Religiosity, 131
Religious, 117
Religious beliefs, 124
Religious commitment, 6
Religious Fundamentalism, 122
Religious Orientation Scale, 43
Religious people, 116
Reluctant participants, 114
Remuneration, 2
Repression, 123
Resistance, 114, 115
Resistant, 131
Rorschach, 39
ROS, 11, 43, 46
Roscoe and Girling, 25
Rotter, 28, 38, 54
Rotter and Rafferty, 37

S

SAR, 46
SAS, 11, 36, 108, 137, 140
Sc, 14, 16, 17, 20, 107, 107, 109, 135
SC1A, 107, 109, 129, 140
SC1B, 129
SC2A, 109, 129
Sc3, 84, 85, 129
Schizophrenic, 35
screening device, 7, 11
SCS, 11, 37, 54, 107
Self- appraisal, 124
Self-actualizing, 132
Self-concept, 124
Seminary Socialization Scale, 52
Seminary Attrition Scale, 31, 36
Seminary Attrition Scale (SAS), 28
Seminary Socialization Scale, 31, 40
Sentence completion, 39, 52
Sentence Completion Scale, 31, 37
Sex role identification, 17
Si, 14, 109
Si1, 107, 109, 139
SI3, 139
SI6, 140
SM, 11, 43, 46

Smith, 38
 SOC, 109, 139, 140
 Soc B, 108, 137, 140
 Social relationships, 32, 40, 136
 Social Alienation, 129
 Social Introversion, 35
 Social responsibility, 126
 Somatic complaints, 34
 Southern Baptist Seminary, 14
 Southern California School of Theology, 14
 Spiritual Maturity Scale, 43
 Spiritual scales, 11
 Spiritual Well Being Scale, 43
 SPSS/PC, 49
 SSS, 11, 40, 52, 84, 85, 107, 137
 St, 83, 107, 140
 Staff relationships, 26
 Standard deviation, 70
 Steere, 14
 Stern, 9, 23, 39, 43
 Stigmas, 2
 Strunk, 13
 Student Adjustment, 41
 Student council, 42
 Subjects, 30
 Success, 8
 Suspicion and Mistrust, 128
 SWB, 11, 46
 Swearing, 116
 Sweeney, 13
 Sympathy, 130

T

TAT, 39
 Tau-c associations, 68
 Tennessee Self-Concept Scale, 43
 Test packets, 51
 Testing sessions, 46
 Theological School Inventory, 8
 Trachsel, 21, 28, 36
 Trends, 84
 Tryon, Stein and Chu, 71
 TSC, 71
 TSC-I, 109, 140
 TSC-II, 107, 129
 TSC-III, 125, 126
 TSC-IV, 107, 135, 139
 TSC-V, 107, 109, 125, 140

TSC-VI, 107
 TSC-VII, 135, 140
 TSCS, 11, 44, 46

V

Validation sample, 41
 Validity sample, 52
 Validity scales, 32
 Vaughan, 15, 17
 Vocational commitment, 26

W

Weisgerber, 14
 Welch and Barrish, 18, 22
 Wiggins, 71
 Wives, 68
 Within group variance, 4
 Worry, 136