

Valuegenesis<sup>2</sup>  
Scales and Other Indices Employed in the Reports  
2002/09/09

*Introduction*

The purpose of this document is to explain the contents of the Valuegenesis<sup>2</sup> survey. A number of measures, some new, some old, have been employed in this survey in order to (a) allow comparability with earlier Valuegenesis research; (b) allow the inclusion of useful measures that were not included in the earlier version; (c) correct shortcomings of some earlier approaches; and (d) delete items that were uninformative, or that did not provide information of unique value.

The construction of any instrument of this type invariably puts those involved at the mercy of a dialectic. Everyone has information they would like to obtain from the survey process, and yet the survey must be kept to a manageable length. The importance of obtaining an accurate portrait of the situation of Adventist youth must be weighed in the balance against a proper respect for the privacy of the students and their families.

One useful consideration in this context is a distinction originally proposed by Richard Gorsuch (1976) in an article advising researchers working with church bodies. This distinction is between *useful* information and *interesting* information. When setting out to design a survey such as this one, researchers and policy makers will often begin by saying, "Wouldn't it be interesting to know how many of our youth ..." But given the constraints noted above (and the unbounded nature of human curiosity) an additional question must be asked. Would including a particular question tell us something about Adventist students that can help direct efforts to bring about more mature, dedicated, and sophisticated Adventist adults? If the answer is yes, then the information is not only "interesting," but also "useful" and it is this latter class of information which the Valuegenesis survey sought to obtain. Both urgent issues facing Adventist pedagogy, and the insights of various forms of research in education and psychology helped to determine what types of information that might be.

*Scales*

The length of the Valuegenesis survey is due largely to the inclusion of a number of scales: collections of items, closely related to one another, all measuring the same "thing" -- an underlying concept or content area. But why use multiple items? Wouldn't a fewer number of questions, or even a single well-worded item, make it clearer what was being measured?

The analysis of individual items is sometimes important. For example, while a particular group may obtain a high score on the Adventist Orthodoxy scale, it is nonetheless of interest to see whether particular items are persistently low, or whether particular items tend to be lower among

some groups. One might expect, for example, that items that uniquely reflect the understanding of the Adventist heritage might increase in endorsement over time as students become more familiar with them.

And yet the use of multiple items does provide unique benefits. For example, it might seem a simple matter to ask, "How old are you?" And yet, one quickly discovers that young people will tend to hedge their age upwards, as their birthdays approach; older people might be more vague and respond only in ranges. Perhaps greater precision should be sought: "What is your date of birth?" Experience indicates, however, that, from force of habit, approximately 5% of the respondents will indicate the current year as their year of birth, e.g., 10/21/02 rather than 10/21/54. If this piece of information is particularly important, one would be advised to ask both questions.

In a broader sense, the purpose of using scales is to avoid the sort of misreading, misunderstanding, and idiosyncratic interpretation errors that can accrue when individual survey items are used. While such error effects might greatly influence a single item, multiple items on the same topic allow such errors to cancel each other out. Thus, when the concept in question is as broad (and important) as 'denominational loyalty' or 'faith maturity,' multiple items are called for.

### *"Cleaning" the Data*

A perennial concern with surveys such as the present one is the accuracy and reliability of the data. What if students choose to answer deliberately "better" or "worse" than their actual opinion. What if they answer at random? The process of prudently reducing the likelihood of such influences is called "cleaning" the data, and for the Valuegenesis project, this is how it was done. Beginning with the data set of 16020 scanned surveys, a series of criteria was applied to delete surveys from the data set. These are summarized in the following table:

	Deleted	Remaining
Start:	0	16020
Grade missing:	991	15029
Gender missing	135	14894
School code missing, incorrect	143	14751
Conference code missing, incorrect	57	14694
Denomination missing	251	14443
School type missing	29	14414
1 or more of items 1-12 missing	995	13419
Drinking party more than daily	332	13087
Club dancing more than daily	94	12994
Movie theatres more than daily	314	12680
"At risk" scale "maxed out"	26	12654
School type = 1	21	12633

School type > 3	39	12594
SDA only	1762	10832

The initial data set included some 16020 scanned surveys. Since the reports based on these surveys are being presented by grade, and sometimes gender, to a variety of schools and conferences, individuals who had failed to report these pieces of information would not appear in any of the individual reports. Their information was therefore removed from the analysis.

The first of the sets of missing data to be removed were those that did not report a grade. This involved nearly a thousand surveys, but it should be noted that, on this "first pass," it is likely that the surveys omitted also included surveys that may have been scanned even though they were entirely blank, those in which more than one grade was filled in, those which were mis-scanned for one reason, and the like. The other "demographic" quests resulted in far fewer missing, although the number who failed to answer the question concerning the denomination of the church which they currently attend is notable.

Nearly another thousand surveys were omitted because individuals failed to complete one of the first twelve items on the survey. The inability or unwillingness to answer questions so early in the survey certainly would not bode well for the remainder of the items. In addition, these were the items of the Faith Maturity scale, which is used as a major "outcome variable" in the Valuegenesis analyses. Omitting one or more items from this scale would omit the respondent from these analyses as well, and so in an attempt to have a fairly consistent body of data through those analyses, those respondents were also omitted.

The next set of items focused on individuals who, though inattention or malice, reported behaviors that were very unlikely. The first three are based on items 114-120, which examine behaviors that violate Adventist standards. There were seven such items, and the response format ranged from performing the behaviors "never" to "more than once a day." While some of the behaviors listed, such as smoking and playing video games, could be engaged in more than once a day, the likelihood that someone (aside from, perhaps, Roger Ebert) averaged more than one movie a day over the previous year is low indeed. Similarly, daily attendance at a "dance club" or "drinking party" would be similarly unlikely.

A similar criterion was applied to the behaviors listed in the "at risk" index (see below). While one might display high rates of some of these behaviors, to claim to have engaged all eight behaviors 40 or more times in the last year is not credible, and those respondents were eliminated. It is interesting to note that frequency distribution for the at-risk scores displayed a confirmatory pattern. As the at-risk index scores rose, fewer and fewer people reported having those scores, which would indicate increasingly frequent at-risk behaviors. At the higher scores, the number of people reporting that level of at-risk behavior, out of more than 10,000 total respondents, fell to single digits. But at the 100% level, when the individual

would have had to have engaged in all of the behaviors 40 or more times in the previous year, the number of scores suddenly jumped to 26. Such a pattern, out of sync with the familiar tapering "tails" of the classic bell curve, supports the thesis that this does not reflect actual behavior, but some form of misreporting.

Since, at this stage, interest focuses on Adventist students in Adventist schools, those who reported that they were not attending Adventist day or boarding schools were excluded, as were non-Adventists.

### *Validity of the Data*

Given that precautions have been taken to eliminate malingerers, malcontents, and narcoleptics, the question remains concerning the validity of the items. Are the students telling the truth?

One means of attempting to assure this is by the form of the questions asked. For example, in the at-risk scales, we have employed the same answering format as that used in the *Monitoring the Future* surveys, which are sponsored by the US government to track drug usage over time by high school seniors. These formats, in turn, have been found to have acceptable reliability and validity when compared to such objective measures as drug tests. Unless there is some reason to believe that Adventist students are markedly more or less likely to lie than the average American high school student, these numbers can thus be compared with extensive national samples.

Another empirical support for validity is the range of responses. The distribution of responses observed -- how many high, how many low -- are consistent with what one would expect in a denominational educational system. Even the "spikes" in these patterns, as discussed above, occur in predictable places. We see replicated here a frequently reported pattern of sudden and disproportionate increase in a variety of at-risk behaviors and negative attitudes between the 8th and 9th grades. Why this occurs, especially in the magnitude observed, is not well understood; that it occurs is well-established, and its presence in these data further argues for their validity.

### *Margin of Error*

The pervasive -- some would say obnoxious -- presence of polling in American society has created an awareness concerning "margins of error," or sampling error, and it is reasonable that the question would be raised in this context. It is easily answered. There margin of error in these data is zero. There is no sampling error, because these data are not based upon a sample.

The purpose of "sampling error" is to tell how likely it is that if someone did the poll over again, they would get the same answer. The margin or error, generally between 3 and 5 percent in those reported in the media, indicates that if someone sampled the same people in the same way

and used the same question, there is a 95% chance that they answers they would get would be  $\pm 3\%$  of those reported by the poll in question. In the case of the Valuegenesis survey, there was no sample; it was done as a census. Effort was made to obtain responses from the entire population of Adventist students in Adventist schools, grade 6-12. If we had been perfectly successful, then there would be very little point indeed in doing it again; we had everyone's answers, and aside from random error (or frustration over having to take "that survey" again), we would get the same answers. But like all things human, our efforts were not perfect. Some people chose not to answer, or answered in a way that made their answers invalid, as is discussed above. This is a question of nonresponse, rather than sampling. For current purposes, the percentages can be treated as accurate representations (at least to the nearest whole percent) of the opinions of the students in Adventist schools.

### *Information Provided*

All items used in the Valuegenesis survey are shown here. For those included in scales, a brief explanation of the purpose of the scale is included. For the psychometrically inclined, reliabilities were calculated separately for each of 14 grade-by-gender groupings (6th grade boys, 6th grade girls, 7th boys, 7th grade girls, and so on until 12th grade boys and 12th grade girls), and the range of those reliabilities (and the grouping for which the high and low scores were reported) are presented for each scale.

A reliability coefficient (specifically, the Cronbach alpha reliability coefficient) is a measure of the degree to which a scale "hangs together," the degree to which the items are correlated with each other. It is a function of the average correlation (degree of relatedness) among the items, and the number of items in the scale. If the items of two scales have equal average inter-item correlations, the one with more items will be more reliable; there are more chances for errors associated with individual items to cancel each other out (as discussed above).

It should also be noted that younger respondents tend to display lower item reliabilities than older respondents; their attitudes are more fluid and their thinking less organized than older respondents.

### **Faith Maturity Scale**

*Items 1-12 have the following response options: (1) never; (2) rarely, (3) once in a while; (4) sometimes; (5) often*

1. I help others with their religious questions and struggles.
2. I seek out opportunities to help me grow spiritually.
3. I feel a deep sense of responsibility for reducing pain and suffering in the world.
4. I give significant portions of time and money to help other people.
5. I feel God's presence in my relationships with other people.
6. I feel my life is filled with meaning and purpose.

7. I show that I care a great deal about reducing poverty in my country and throughout the world.
8. I apply my faith to political and social issues.
9. The things I do reflect a commitment to Jesus Christ.
10. I talk with other people about my faith.
11. I have a real sense that God is guiding me.
12. I am spiritually moved by the beauty of God's creation.

#### *Comments*

This scale was originally developed as a broadly-based interdenominational measure, consisting of some 38 items, and it appeared in that form in the first Valuegenesis survey. Later psychometric analysis indicated that an equivalent scale could be composed of 12 core items (Benson, Donahue & Erikson, 1993). This latter scale was used in the "short form" employed as a survey service after the primary Valuegenesis reports had been issued.

Unfortunately, there were still shortcomings with the format of both the questions and the available responses. The available responses were expressed in terms of a seven-point frequency scale (never to always), and several of the items themselves contained qualifiers ("always"). In addition, not all the items were written in the first person. The present version of the scale corrects both shortcomings.

*The **Faith Maturity Scale** had reliabilities of .81 (6th grade girls) to .88 (11th grade boys).*

A **high** scale score was an average of 5.0 or high on the scale items; a **low** scale score was an average of 3.0 or lower on the scale items; all other scores were classified **medium**.

#### **Commitment to Jesus Christ**

13. Which of the following best describes your commitment to Jesus Christ?

*(1) I am not committed to Christ; (2) I am not sure if I am committed to Christ; (3) I committed my life to Christ at a specific moment in my life, but it didn't last; (4) My commitment to Christ has developed gradually over a period of time; (5) I've been committed to Christ since I was a young child, and continue to be committed to Christ.*

#### **Importance of Religion**

14. How important is religious faith in your life?

*(1) It is the most important influence in my life; (2) It is a very important influence in my life; (3) It is an important influence, but other things are also important in my life; (4) It has some influence in my life; (5) It is not an important influence in my life.*

#### **Gender**

15. Are you male or female?

*(1) Male; (2) Female*

### **Type of School**

16. What type of school do you attend?

- (1) *Public school*; (2) *Seventh-day Adventist day school*; (3) *Seventh-day Adventist boarding school*; (4) *Non-Adventist private school*; (5) *Non-Adventist Christian school*; (6) *Home school*; (7) *None*

### **Importance of Spirituality in Friend Choice**

17. How strongly do you consider spirituality, morality, or religiousness when choosing a friend?

- (1) *I definitely think it has an impact on me*; (2) *It has some impact on my choice of friends*; (3) *I'm not sure it has an impact on my choice of friends*; (4) *It has little impact on my choice of friends*; (5) *It has no impact at all on my choice of friends*.

### **Evangelization**

*Items 18, 19, and 20 have the following response options: (1) 1-2 times; (2) 3-5 times; (3) 6-9 times; (4) 10-19 times; (5) 20-39 times; (6) 40 or more times*

18. How often have you tried to directly encourage someone to believe in Jesus Christ during the last year?

19. How often have you told others about the work of God in your life during the last year?

20. How often have you tried to directly encourage someone to join the Adventist church during the last year?

#### *Comments*

Items 18 and 19 were combined into a scale concerning evangelization (item 20 was found to reduce scale reliability).

*The resulting **Evangelization Scale** had reliabilities from .72 (8th grade boys) to .81 (12th grade boys).*

### **Altruism**

21 -24: How many volunteer hours (through church, other organizations, or on your own) do you spend on each of the following during the typical month? Give your best estimate. Don't count time you spend while in a paid job.

*Items 21-24 have the following response options: (1) 0 hours; (2) 1-2 hours; (3) 3-5 hours; (4) 6-10 hours; (5) 11-20 hours; (6) More than 20 hours*

21. Helping people who are poor, hungry, sick, or unable to care for themselves (don't count family members)

22. Helping friends or neighbors with problems they have

23. Promoting social equality (racial equality, women's rights, economic reform) or world peace

24. Making your own town or city a better place to live (by doing volunteer work in a school, being on a city committee or task force)

#### *Comments*

*These 4 items formed an **Altruism scale** with reliabilities from .61*

(9th grade females) to .73 (6th grade females)

### **Description of Friends**

How important is it to you to have friends who...

*Items 25-24 have the following response options: (1) Of no importance; (2) Of little importance; (3) Somewhat important; (4). Very important*

25. You can talk to about spiritual things
26. Bring out the best in you
27. Encourage you to meet good goals
28. Help keep you out of trouble
29. Share your spiritual values
30. Are a good influence on you
31. Are at least as religious as you are
32. Are at least as moral as you are
33. Your parents approve of
34. Attend religious services regularly

### **Personal Devotion**

How often, if ever, do you do each of the following:

*Items 35-38 have the following response options: (1) Never; (2) Less than once a month; (3) About once a month; (4) 2 or 3 times a month; (5) About once a week; (6). Several times a week; (7) Once a day; (8). More than once a day*

35. Pray other than at church or before meals
36. Watch religious programs on television or listen to religious radio programs
37. Read the Bible on my own
38. Read the writings of Ellen White

*These 4 items formed a **Personal Devotional Practices Scale** with reliabilities from .60 (7th grade females) to .72 (11th grade male)*

### **Grace and Works**

For each of the following statements, tell how much you agree or disagree.

Choose one answer for each.

*Items 39-55 have the following response options: (1) I definitely disagree; (2) I tend to disagree; (3) I'm not sure; (4) I tend to agree; (5) I definitely agree*

39. I know that to be saved I have to live by God's rules
40. I know that God love me no matter what I do
41. There is nothing I can do to earn salvation
42. Following Adventist standards and practices will cause me to be saved
43. The way to be accepted by God is to try sincerely to live a good life
44. The main emphasis of the gospel is on God's rules for right living
45. I am loved by God even when I sin
46. I am worried about not being ready for Christ return
47. Salvation is the way God rewards us for obeying Him
48. Salvation is God's way of saying thank you for our good behavior

The following statements have to do with salvation (being saved, getting to heaven, having eternal life). Which statement best describes your understanding of how we obtain salvation?

49. We show we are worthy of being saved by doing good to others.
50. The gift of salvation is free, yet I must keep the law to be worthy to receive it.
51. My salvation depends on whether I keep the law perfectly
52. We must be baptized church members before we really are saved
53. Salvation is God's free gift to us that we don't deserve and cannot earn.
54. We can do nothing to deserve God's gift of salvation
55. My good works are a response to God's gift of grace

#### *Comments*

The second set of these items was added after concerns that the students may not have understood the initial set properly. (Inasmuch as they address issues which have been at the center of some of the greatest controversies in Christian theology, the inability of grammar and high school students to understand them is perhaps not unexpected.)

In the original Valuegenesis reports, a "Works" scale was constructed using items 31, 42-44, and a "reversal" of item 41 (agree scored high, disagree scored low). This scale was used in the initial Valuegenesis 2 reports to allow comparability with earlier data.

However, with the expanded item pool, and based on item analysis, a revised grace scale can be constructed, and it is this revised scale which would be recommended for research on these data. this revised grace scale includes items 39, 42-44, 47-49, and 51.

*The reliability of the **Works Scale** based on these 8 items ranged from .80 (6th grade boys) to .88 (12th grade boys).*

There was also a "Grace" scale in the original Valuegenesis data, but revision of scale content resulted in one of the of the original scale being eliminated. However, a reliable "works" scale can be constructed from the present items, using items 41, 53, 54.

*The reliability of the **Grace Scale** based on these 3 items ranged from .75 (6th grade boys) to .85 (12th grade boys).*

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified **medium**.

#### **Sexual Morality**

In your opinion do you agree or disagree with each of these? Mark one answer for each. If you are not sure, mark the middle category.

*Items 56-58 have the following response options: (1) I definitely disagree; (2) I tend to disagree; (3) I'm not sure; (4) I tend to agree; (5) I definitely agree*

56. Sexual intercourse between two unmarried adults who love each other
57. Sexual intercourse between two unmarried 17-year-olds who love each other

58. Sexual relations between two adults of the same sex who love each other

### **Sexual Abuse**

59. Have you ever experienced sexual abuse (being touched or fondled in sexual areas of the body, raped, or seduced, or pressured into having sex against your will)?  
 (1) *Never*; (2) *Once*; (3) *2 or 3 times*; (4) *4-10 times*; (5) *more than 10 times*

### **Belief Orthodoxy**

- 60-84: How strongly do you believe each of the following statements?  
 Please mark only one answer for each.

*Items 60-84 have the following response options: (1) I have never heard of this; (2) I definitely do not believe this; (3) I am uncertain but lean toward not believing; (4) I am uncertain whether or not I believe this; (5) I am uncertain but lean toward believing; (6) I definitely believe this.*

60. God created the world in six 24-hour days.  
 61. Jesus will come back to earth again and take the righteous to heaven.  
 62. The Ten Commandments still apply to us today.  
 63. The true Sabbath is the seventh day Saturday.  
 64. The investigative or pre-advent judgment in heaven began in 1844.  
 65. When people die, they remain in the grave until the resurrection.  
 66. The wicked will not burn forever but will be totally destroyed.  
 67. Ellen G. White fulfilled Bible predictions that God would speak through the gift of prophecy in the last days.  
 68. The Seventh-day Adventist Church is God's true last-day church with a message to prepare the world for the Second Coming of Christ.  
 69. The body is the temple of God, and we are responsible in every area of life for its care.  
 70. There is one God: Father, Son, and Spirit, a unity of three eternal Persons  
 71. God, our Heavenly Father, is the Source, Sustainer, and Ruler of the universe.  
 72. Jesus is truly and eternally God.  
 73. Jesus became truly and fully human.  
 74. God, the Holy Spirit, teaches us how much we need Jesus in our lives, draws us to Jesus, and makes us like Him.  
 75. The first man and woman, created as free beings in the image of God, chose to rebel against God. We have inherited their fallen nature along with all its consequences.  
 76. There is a great controversy taking place between God and Satan. It began in heaven with the rebellion of Lucifer and will continue until the end of time.

77. The church is God's family on earth, a community of faith in which many members, all equal in Christ, join for worship, instruction and service.
78. Baptism is a public testimony that we have accepted Jesus and want to be involved in His church.
79. Taking part in the Communion Service expresses thanks to Jesus for saving us.
80. God has given spiritual gifts to each of us that we can use in ministry.
81. We acknowledge God's ownership of the earth and all its resources by returning tithes and giving offerings.
82. Marriage is a loving union that should be entered into only by people who share a common faith.
83. The end-time millennium (1,000 years) begins with the Second Coming when the righteous are taken to heaven, and ends with the final destruction of the wicked.
84. After the millennium, God will recreate the earth as a perfect, eternal home of the redeemed. Sin will never exist again.

#### *Comment*

The original measure of Adventist orthodoxy involved items 60-69. The following 15 items were added in order to clarify certain issues that had arisen with respect to those originally written.

*The reliability of the **Orthodoxy I Scale** based on items 60 to 69 ranged from .61 (6th grade girls) to .86 (12th grade boys).*

*The reliability of the **Orthodoxy II Scale** based on items 70 to 84 ranged from .73 (6th grade girls) to .90 (12th grade boys).*

*The correlation between the two scales for all respondents was .74; it ranged from .58 for 6th grade males to .84 for 11th grade girls.*

The correlation between these two scales would be influenced by their reliabilities. Other things being equal, scales with lower reliabilities will have lower correlations; "noisy" (less reliable) scales form "fuzzier" relations than more reliable scales.

In all cases, these statistics were calculated by first recoding the response (1) *I have never heard of this* as "missing"; those who chose that answer were excluded from the analysis.

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified **medium**.

#### **Racial/Ethnic Identity**

85. How do you describe yourself?

*(1) American Indian; (2) Asian or Pacific Islander; (3) Black or African American; (4) Latino or Hispanic; (5) White; (6) More than one racial background*

**Age**

86. How old are you?

(1) 11 or younger; (2) 12; (3) 13; (4) 14; (5) 15; (6) 16; (7) 17; (8) 18;  
(9) 19; (10) 20 or older

**Congregational Climate**

Think about the local church that you attend. How true of your church are each of these statements? (Mark one for each.)

*Items 87-97 have the following response options: (1) I do not attend church; (2) Not all the time; (3) Slightly true; (4) Somewhat true; (5) Quite true; (6) Very true*

87. It feels warm.

88. I learn a lot.

89. It accepts people who are different.

90. Most members want to be challenged to think about religious issues and ideas.

91. It is friendly.

92. It challenges my thinking.

93. It encourages me to ask questions.

94. Strangers feel welcome.

95. It expects people to learn and think.

96. It stretches me in worship.

97. It provides fellowship.

**Comment**

These items were use to create two measures of congregational "climate"; the degree to which one's congregation, as a whole, is perceived as having particular characteristics. One scale is called "congregational warmth" and consists of items 87, 89, 91, 94, and 97. The other was called "thinking climate" and consisted of items 88, 90, 92, 93, 95, and 96.

*The reliability of the **Congregational Warmth Scale** ranged from .80 (7th grade boys) to .92 (12th grade girls).*

*The reliability of the **Thinking Climate Scale** ranged from .82 (6th grade boys) to .92 (12th grade girls).*

In all cases, these statistics were calculated by first recoding the response (1) *I do not attend church* as "missing"; those who chose that answer were excluded from the analysis.

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified **medium**.

**Country of Birth**

98. Were each of the following people born in the United States? Check all that apply.

(1) *Yourself*; (2) *Your mother*; (3) *Your father*

## Life Values

Listed below are goals that some people say are important to them. What are your goals? For each of these, indicate how important the goal is to you. Speak for yourself, according to what you want in life.

*Items 99-106 have the following response options: (1) Not at all important; (2) Somewhat important; (3) Quite important; (4) Extremely important*

- 99. To spend time helping people
- 100. To live my life according to Adventist standards
- 101. To have lots of nice things
- 102. To help people who are poor or hungry
- 103. To have lots of money
- 104. To be active in the Adventist church
- 105. To show love to other people
- 106. To help promote social equality

### *Comment*

This small set of items was broken into three scales: **Altruism as a Life Value** (items 99, 102, 105, 106); **Adventism as a Life Value** (items 100 and 104) and **Materialism as a Life Value** (items 101 and 103).

*Altruism as a Life Value had reliabilities from .70 (6th grade girls) to .80 (11th grade boys).*

*Adventism as a Life Value had reliabilities from .63 (6th grade girls) to .79 (8th grade girls).*

*Materialism as a Life Value had reliabilities from .73 (6th grade boys) to .85 (9th grade boys).*

A **high** scale score was an average of 3.0 or high on the scale items; all other scores were classified **low**.

## Frequency of Worship Services

107. How often do you attend worship services at a church?

*(1) Never; (2) Less than once a month; (3) About once a month; (4) Two or three times a month; (5) About once a week; (6) Two times a week or more*

## Denominational Affiliation

108. With which denomination is your local church affiliated? (Mark only ONE.)

*(1) I am not a member of a church; (2) Seventh-day Adventist; (3) Another church or denomination; (4) No preference*

## Circumstances for Leaving the Local SDA Church

109. Under what conditions would you consider leaving your local Seventh-day Adventist church to worship in another congregation or another faith?

- (1) *When sermons are boring*; (2) *When church is cold and unfriendly*;  
 (3) *When there are no activities for young people*; (4) *When worship services are not meaningful*; (5) *Other: [please specify]*

### **Denominational Loyalty**

110. How satisfied are you with the denomination of the church you now attend?

- (1) *Very dissatisfied*; (2) *Dissatisfied*; (3) *Neither satisfied nor dissatisfied*; (4) *Satisfied*; (5) *Very satisfied*

111. If you moved to another city that has many churches from which to choose, would you attend a church of the same denomination as the church you now attend?

- (1) *No*; (2) *No, probably not*; (3) *Maybe*; (4) *Yes, probably*; (5) *Yes, absolutely*

#### *Comment*

A **Denominational Loyalty Scale** was constructed by:

- multiplying the items on the **Adventism as a Life Value** scale (items 100, 104) by 5/4 in order to control for the difference between the 4- and 5-point response formats;

- adding those items to these two items and combining it with:

145. When you are 40 years old, do you think you will be active in the Adventist church?

- (1) *No chance*; (2) *Small chance*; (3) *Fair chance*; (4) *Good chance*; (5) *Excellent chance*

The resulting **Denominational Loyalty Scale** had reliabilities from .68 (6th grade girls) to .85 (11th grade males).

Item 110 had a somewhat irregular relationship with this scale, for 11th and 12th grade girls, excluding the item raised the reliability slightly (.02); for other groups the item fit well with the others.

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified **medium**.

### **Experience of Intercourse**

112. Have you ever had sexual intercourse (gone all the way, made love)?

- (1) *No*; (2) *Once*; (3) *Twice*; (4) *3 times*; (5) *4 or more times*

### **Experience with Eating Disorders**

113. Are you now, or have you ever been involved in any eating disorder (throwing-up, avoiding eating)?

- (1) *No*; (2) *Once*; (3) *Twice*; (4) *3 times*; (5) *4 or more times*

### **Violation of Adventist Behavioral Standards**

How often, if ever, did you do each of the following during the last year?

- Choose from these answers: (1) *never*; (2) *less than once a month*; (3) *about once a month*; (4) *2 or 3 times a month*; (5) *about once a week*; (6) *several times a week*; (7) *once a day*; (8) *more than once a day*

114. Smoke tobacco
115. Wear jewelry
116. Listen to hard rock music
117. See a movie at a movie theatre
118. Go to a club to dance
119. Play a violent video game
120. Go to a party where people use alcohol

### **Dissatisfaction with Adventist Standards Enforcement**

WHETHER OR NOT YOU ARE A SEVENTH-DAY ADVENTIST, in your experience with the Adventist Church, how often are these things true?

Choose from these answers: (1) *No opinion*; (2) *Never true*; (3) *Rarely true*; (4) *True once in a while*; (5) *Sometimes true*; (6) *Often true*; (7) *Almost always true*; (8) *Always true*

121. Students breaking a school standard or rule in Adventist schools are punished too harshly.
122. Some adults insist on certain rules or standards for younger Adventists that they do not observe themselves.
123. The feeling is conveyed in the Adventist Church that how one behaves is more important than what one believes.
124. Emphasis on Adventist rules and standards is so strong that the message of Christianity gets lost.
125. People respect Adventists for their high moral standards.
126. Non-Adventists laugh when they hear what Adventists choose not to do.
127. Adventists are loaded down with too many restrictions.
128. Adventist rules and standards just don't make sense.

#### *Comments*

Items 121-124, 127, and 128 were combined into a

### **Dissatisfaction with Standards Enforcement Scale.**

*The Dissatisfaction with Standards Enforcement Scale had reliabilities from .82 (7th grade girls) to .86 (8th grade boys).*

A **high** scale score was an average of 5.0 or high on the scale items; a **low** scale score was an average of 3.0 or lower on the scale items; all other scores were classified **medium**.

### **Personal Endorsement of Adventist Standards**

How much do you personally agree or disagree with each of these standards of behavior?

Choose from the following answers: (1) *I definitely disagree*; (2) *I tend to disagree*; (3) *I'm not sure*; (4) *I tend to agree*; (5) *I definitely agree*

129. One should not use tobacco.
130. One should not drink beer or liquor.
131. One should not wear jewelry.
132. One should not listen to rock music.
133. One should not watch movies in movie theatres.

- 134. One should not dance.
- 135. One should not use illegal drugs.
- 136. Sex should only occur in marriage.
- 137. One should not eat unclean meats.
- 138. One should observe the Sabbath.
- 139. One should wear modest clothes.
- 140. One should not engage in competitive sports.
- 141. One should exercise daily.
- 142. Married persons should not wear a wedding ring.
- 143. One should not use drinks with caffeine.
- 144. One should not play violent video games.

*Comment*

This group of items is essentially the same one used on previous versions of the survey, with the exception of item 144. As with previous analyses, it was divided into three subscales: the **Drug Standards Scale** (items 129, 130, 135); the **Popular Culture Standards Scale** (items 131-134, 140, 142, 143) and the **Adventist Lifestyle Scale** (items 136-139, 141).

*The Drug Standards Scale had reliabilities from .80 (10th grade girls) to .86 (6th grade girls).*

*The Popular Culture Standards Scale had reliabilities from .83 (6th grade boys) to .87 (11th grade boys).*

*The Adventist Lifestyle Scale had reliabilities from .57 (6th grade boys) to .72 (11th grade boys).*

The relatively low reliabilities for the **Adventist Lifestyle Scale** were due to item 142 "Married persons should not wear a wedding ring." Item analysis indicated that this particular item was not well-correlated with the others in the scale, and its removal resulted in small (e.g., .02) increases in the reliability, as opposed to the decrease that would be expected from decreasing the number of items in the scale.

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified **medium**.

### **Denominational Loyalty**

Item 145. (See item 110, above)

### **Consumption of Meat and Dairy**

Items 146-147 have the following response options: (1) *Never*; (2)

*Occasionally, but less than once a month*; (3) *Between once a week and once a month*; (4) *1 to 3 days a week*; (5) *3 to 6 days a week*; (6) *daily*

146. How often do you eat any kind of meat (for example, beef, chicken, fish)?

147. How often do you eat any kind of dairy product (for example, milk, ice cream, cheese, yogurt)?

### **Strictness of Enforcement of Adventist Standards**

IF YOU ARE NOT A SEVENTH-DAY ADVENTIST, please skip to question 165. If you are a Seventh-day Adventist, please continue. For each of the following, indicate how strictly it is enforced by (1) your family and (2) the Adventist school you now attend. Please omit the school section if it does not apply.

Choose from the following answers: (1) *Not at all strictly enforced*; (2) *Somewhat strictly enforced*; (3) *Quite strictly enforced*; (4) *Very strictly enforced*

- 148. Not smoking tobacco
- 149. Not drinking beer and alcohol
- 150. Not wearing jewelry
- 151. Not listening to rock music
- 152. Not dancing
- 153. Not attending movie theatres
- 154. Not using illegal drugs
- 155. Having sex only in marriage
- 156. Not eating unclean meat
- 157. Observing the Sabbath
- 158. Wearing modest clothing
- 159. Not doing competitive sports
- 160. Exercising daily
- 161. Not wearing a wedding ring
- 162. Not using drinks that contain caffeine
- 163. Not playing violent video games
- 164. Not watching R-rated videos

#### *Comment*

This group of items is essentially the same one used on previous versions of the survey, with the exception of item 144. As with previous analyses, it was divided into three subscales: the *Drug Standards Strictness Scale* (items 148, 149, 154); the *Popular Culture Standards Strictness Scale* (items 150-153, 159, 161, 162) and the *Adventist Lifestyle Strictness Scale* (items 155, 156, 157, 158, 160).

Scale analysis indicated that the item concerning illicit drug use did not fit well with the other two items of the Drug Standards Strictness Scale for students in the lower grade, although this effect dwindled as the age of the students increased. Removing that item resulted in an increase in the reliability by up to .04; it averaged about .015

Similarly, the item concerning daily exercise did not fit well with the Adventist Lifestyle Strictness Scale, most likely because positive attitudes toward daily exercise are not unique to Adventism. Removing that item resulted in an increase in the reliability by up to .06; it averaged about .03

*The Drug Standards Strictness Scale for families had reliabilities from .78 (8th grade girls) to .88 (12th grade boys).*

*The Drug Standards Strictness Scale for schools had reliabilities from .76 (8th grade boys) to .90 (12th grade female).*

*The Popular Culture Strictness Scale for families had reliabilities from .81 (6th grade boys) to .88 (12th grade girls).*

*The Popular Culture Strictness Scale for schools had reliabilities from .76 (8th grade boys) to .90 (12th grade female).*

*The Adventist Lifestyle Strictness Scale for families had reliabilities from .63 (7th grade girls) to .74 (12th grade girls).*

*The Adventist Lifestyle Strictness Scale for schools had reliabilities from .51 (6th boys boys) to .69 (12th grade boys).*

A higher scale score was an average of 3.0 or high on the scale items; all other scores were classified lower.

### **Attitude Toward Adventist Schools**

For each of the following statements, tell how much you agree or disagree.

Items 165-168 have the following response options: (1) *No opinion*; (2) *I definitely disagree*; (3) *I tend to disagree*; (4) *I'm not sure*; (5) *I tend to agree*; (6) *I definitely agree*

165. Adventist schools provide a better academic program than do public schools.

166. Adventist schools should be a top priority among Adventist leaders.

167. Adventist schools should spend more time enforcing Adventist standards.

168. Adventist schools should spend more time teaching about God's grace

### **Family Composition**

169. Do you live all or most of the time in a family with two parents?

(1) *No*; (2) *Yes*

170. Are your parents divorced or separated?

(1) *No*; (2) *Yes*; (3) *My parents were never married*; (4) *I'm not sure*

### **Religious Affiliation of Parents**

Items 171 and 172 have the following response options: (1) *This question does not apply to me*; (2) *No*; (3) *Yes*

171. Is your father presently a Seventh-day Adventist?

172. Is your mother presently a Seventh-day Adventist?

### **Frequency of Conversations with Parents**

173. How many times in the last month have you had a good conversation with one of your parents that lasted 10 minutes or more?

(1) *Never*; (2) *Once*; (3) *Twice*; (4) *3 times*; (5) *4 or more times*

### **Family Climate**

How much do you agree or disagree with each of the following?

Items 174-179 have the following response options: (1) *No opinion*; (2) *I definitely disagree*; (3) *I tend to disagree*; (4) *I'm not sure*; (5) *I tend to agree*; (6) *I definitely agree*

174. My family life is happy.

175. There is a lot of love in my family.

176. I get along well with my parents.  
 177. My parents give me help and support when I need it.  
 178. My parents often tell me they love me.

*Comment*

Before analyzing these items, the option "I have no opinion" was coded to missing data.

*The reliability of the **Family Climate Scale** based on based on these five items ranged from .85 (6th grade girls) to .90 (12th grade boys).*

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified medium.

### **Parental Enforcement**

179. If I break one of the rules set by my parents, I usually get punished.  
 (1) *No opinion*; (2) *I definitely disagree*; (3) *I tend to disagree*; (4) *I'm not sure*; (5) *I tend to agree*; (6) *I definitely agree*

### **Parental Concern Over Alcohol Use**

180. If you came home from a party and your parents found out that you had been drinking, how upset do you think they would be?  
 (1) *Not at all upset*; (2) *A little upset*; (3) *Somewhat upset*; (4) *Very upset*;  
 (5) *Extremely upset*

*Comment*

This item was included because previous research indicated that this particular item predicted the students' involvement toward a wide range of at-risk behaviors.

### **Parental Strictness**

If you live with your parents or guardian, how often do they do the following?

Items 165-168 have the following response options: (1) *Never*; (2) *Rarely*;  
 (3) *Sometimes*; (4) *Often*

181. Help you with your homework.  
 182. Limit the amount of time you can spend watching television.  
 183. Limit the amount of time for going out with friends on school nights.  
 184. Limit the amount of time for going out with friends on weekends.  
 185. Limit the types of music you listen to.  
 186. Limit time spent playing video games.  
 187. Limit time spent on the internet.

*Comment*

A scale of Parental Monitoring was created using items 182-187.  
*The reliability of the **Parental Monitoring Scale** ranged from .75 (6th grade boys) to .85 (12th grade boys).*

A **high** scale score was an average of 3.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified moderate.

### **Criteria for Comfort at Church**

188. To feel comfortable bringing a friend to church, what needs to happen? (Select as many as apply)

- (1) *Good music*; (2) *Younger worship leaders*; (3) *Acceptance*; (4) *Shorter sermons*; (5) *More people of your age*; (6) *Friendliness*; (7) *No guilt trips*; (8) *Doctrines preached*; (9) *Grace preached*; (10) *Social events*

### **Religiousness of Parents**

Items 189-190 have the following response options: (1) *This question does not apply to me*; (2) *S/he is not religious at all*; (3) *S/he is not very religious*; (4) *S/he does religious things, but it doesn't seem to matter much how s/he leads his life.*; (5) *Although s/he is religious, it is not easy to tell how it influences his/her life.*; (6) *S/he is deeply religious. It is evident that his/her faith has a big impact on how s/he lives his life.*

189. Which of the following best describes, in your opinion, the way your FATHER is religious?

190. Which of the following best describes, in your opinion, the way your MOTHER is religious?

### **Frequency Conversations with Parents About Faith**

Items 191-194 have the following response options: (1) *This question does not apply to me.*; (2) *Never*; (3) *Less than once a month*; (4) *About once a month*; (5) *About 2-3 times a month*; (6) *About once a week*; (7) *Several times a week*; (8) *Once a day*; (9) *More than once a day*

191. How often does your FATHER talk with you about his faith or religious experiences he has had?

192. How often does your MOTHER talk to you about her faith or religious experiences she has had?

193. How often do YOU and your FATHER talk together about faith or religion?

194. How often do YOU and you MOTHER talk together about faith or religion?

### **Comfort with Faith Talk**

How comfortable are the following people in talking with others about their faith and what God means to them?

Items 195-197 have the following response options: (1) *This question does not apply to me*; (2) *Not comfortable*; (3) *Comfortable*; (4) *Very comfortable*

195. Your father

196. You mother

197. You

### **Family Worship**

198. How often does your family have family worship (prayers or religious devotions you have together as a family away from church)?

(1) *Never (skip to question 202)*; (2) *Less than once a month*; (3) *About once a month*; (4) *About 2-3 times a month*; (5) *About once a week*; (6) *Several times a week*; (7) *Once a day*; (8) *More than once a day*

When you think about family worship or other religious events in your home, which of these apply? Answer yes or no to each one.

Items 195-197 have the following response options: (1) *No*; (2) *Yes*

199. Interesting

200. Meaningful

201. A waste of time

### **Frequency of Depression**

202. How often have you felt sad or depressed during the last month?

(1) *Not at all*; (2) *Once in a while*; (3) *Some of the time*; (4) *Most of the time*; (5) *All the time*

### **Frequency of Suicide Attempts**

203. Have you ever tried to kill yourself?

(1) *No*; (2) *Yes, once*; (3) *Yes, twice*; (4) *Yes, more than two times*

### **School Climate**

How much do you agree or disagree with each of the following statements concerning the school you now attend?

Choose from these answers: (1) *Strongly disagree*; (2) *Disagree*; (3) *Agree*; (4) *Strongly agree*

204. Students often feel put down by teachers.

205. There is real school spirit.

206. Discipline is fair.

207. The teaching is good.

208. Teachers are interested in students.

209. When students work hard on schoolwork, teachers praise their efforts.

210. Teachers listen to what their students say.

211. Students have a say in how the school is run.

212. I like my school.

*Comment*

A school climate measure was constructed by reversing the first item (scoring it so that agreement was scored low and disagreement was scored high.)

*The reliability of the **School Climate** scale ranged between .78 (7th grade boys) to .85 (8th grade boys).*

### **Quality of Religious Education**

Think about your experience with religious education at your church. (Religious education includes Sabbath School, Bible studies, youth

groups, camping projects, AY, and other programs.) For each of these statements, tell how true it is for you. If you were never involved, mark Does not apply.

Choose from these answers: (1) *Does not apply*; (2) *Not at all true*; (3) *Slightly true*; (4) *Somewhat true*; (5) *True*; (6) *Very true*

- 213. Programs at my church are interesting.
- 214. Programs at my church make me think.
- 215. My teachers or adult leaders know me well.
- 216. My teachers or adult leaders are warm and friendly.
- 217. I can be myself when at church.
- 218. My teachers or adult leaders care about me.
- 219. I look forward to going to things at my church.
- 220. I go to things at church because I want to.

#### *Comment*

A scale of Quality of Religious Education was constructed using each of the items except 217, which was not closely related to the others. Individuals choosing the "Does not apply" response to one or more items were not included.

*The Quality of Religious Education Scale had reliabilities from .87 (6th grade boys) to .90 (11th grade boys).*

A **high** scale score was an average of 4.0 or high on the scale items; a **low** scale score was an average of 2.0 or lower on the scale items; all other scores were classified medium.

#### **At-Risk Behaviors**

How many times, if ever, during the last 12 months did you do each of the following?

Items 221-228 have the following response options: (1) *Never*; (2) *1-2 times*; (3) *3-5 times*; (4) *6-9 times*; (5) *10-19 times*; (6) *20-39 times*; (7) *40 or more times*

- 221. Drink alcohol (beer, wine or liquor) while alone or with a friend
- 222. Use marijuana (grass, pot)
- 223. Use cocaine (coke, snow, crack)
- 224. Have five drinks or more in a row (a drink is a glass of wine, a can of beer, a shot of liquor, or a mixed drink)
- 225. Hit or beat up someone
- 226. Take something from a store without paying for it
- 227. Get into trouble at school
- 228. Use tobacco

#### *Comment*

Two "at-risk" scales are available for analysis. Both consist of items 202, 203, 221-227, and 229. The first counts the number of times that the student engaged in any of these behaviors in the time period mentioned in the question. The second, called the At-Risk Index allows for a certain degree of experimentation with various behaviors. Specifically, a student is scored as having engaged in an at-risk behavior if they

- have been depressed more than "once in a while" in the last month (item 202)

- drank alcohol alone or with a friend (item 221) more than five times in the last year;

- used marijuana (item 222); used cocaine (item 223); hit or beat someone up (item 225); shoplifted (item 226); or gotten in trouble at school (item 228) more than twice in the last year. The remaining items remain at the "ever" threshold.

It may be noted that the "smoking" item was not included in this index. research on at-risk behaviors in adolescence indicates that smoking is a singularly powerful "flag" or predictor for a wide variety of other at-risk behaviors; it was therefore considered best to keep it as a separate measure.

### **Physical Abuse**

229. Have you ever been physically abused by an adult (that is, when an adult caused you to have a scar, black and blue marks, welts, bleeding, or a broken bone)?

*(1) Never; (2) Once; (3) 2 or 3 times; (4) 4 to 10 times; (5) more than 10 times*

### **Grade**

230. What is your grade in school?

*(1) 6th; (2) 7th; (3) 8th; (4) 9th; (5) 10th; (6) 11th; (7) 12th*

### **Nature of Family Worship**

231. Which of the following best describes the way in which your family most often worships together?

*(1) We don't have family worship; (2) We hardly ever worship together; (3) Mostly reading together; (4) Mostly praying together; (5) Mostly sharing our ideas with each other; (6) Usually a combination of the above*

### **Age at Baptism**

232. At what age were you baptized? .

*(1) I have not been baptized.; (2) 9 or under; (3) 10; (4) 11; (5) 12; (6) 13; (7) 14; (8) 15; (9) 16; (10) 17; (11) 18 or over*

### **Influences on Religious Development**

How much has each of the following helped you develop your religious faith?

Choose from these answers: *(1) Does not apply to me; (2) Not at all; (3) Not too much; (4) Somewhat; (5) Very much*

233. Sabbath School

234. Personal devotions

235. Church service

236. Dormitory or morning worship at school

237. Weekly chapel at school
238. Bible classes at school
239. Week of Prayer at school
240. Student Week of Prayer at school
241. Bible/Leadership Camps through school
242. Community Outreach at school
243. The Bible teacher
244. Short-term mission project
245. Religious youth organization such as AY (Adventist Youth) or MV (Missionary Volunteers)
246. Pathfinders
247. Family worship
248. Mothers faith
249. Fathers faith
250. Grandparents faith
251. My friends faith
252. Teachers faith
253. The family I grew up in
254. Attending an Adventist school
255. Conference youth camps
256. Evangelistic outreach (giving Bible studies, distributing literature, etc.)
257. Conference youth rallies
258. The church pastor
259. The youth pastor

*Comment*

A subset of these items were chosen to reflect spiritual influences that were considered to be particularly strong: items 234-243, 252, and 254. Individuals who chose "does not apply" for one or more items were excluded.

*The reliability of the **Spiritual Influences Scale** ranged from .87 (11th grade girls) to .94 (8th grade boys).*

### **Faith-Related Experiences**

In the last few years, how often did you do or experience each of these things? Mark one answer for each statement.

Choose from these answers: (1) *Never or rarely*; (2) *Sometimes*; (3) *Often*

260. Participate in family projects to help other people
261. Experience the feeling that adults in my local church care about me
262. Experience the feeling that youth in my local church care about me
263. Talk to a teacher at school about God or faith
264. Participate in church programs or events that include youth and adults together
265. Talk to my mother about faith
266. Talk to my father about faith
267. Talk to a pastor about faith

### Interest in School Program Topics

What kinds of programs and events interest you? For each one, mark an answer to show how interested you would be in learning more about it. Choose from these answers: (1) *Not interested*; (2) *Slightly interested*; (3) *Somewhat interested*; (4) *Interested*; (5) *Very interested*

- 268. Sexuality
- 269. Drugs and alcohol
- 270. Adventism
- 271. The Bible
- 272. Gaining a deeper relationship with God
- 273. Other races and ethnic groups
- 274. How to talk with my parents
- 275. How to talk to a friend about faith

### Youth Ministry Programs at Church and School

- 276. There is a regular youth ministry program in my (a) Church (b) School  
(1) *Never*; (2) *Once a month*; (3) *Every two weeks*; (4) *Every week*; (5) *More than once a week*
- 277. I find the youth or young adult programs meaningful at my (a) Church (b) School  
(1) *Yes*; (2) *No*
- 278. There is a youth pastor at my church.  
(1) *Yes*; (2) *No*
- 279. How well do you know him/her?  
(1) *Very well*; (2) *Quite well*; (3) *Not well*; (4) *Not at all*; (5) *No youth pastor*
- 280. Youth and young adults regularly take leading roles in the worship services at my church  
(1) *Yes*; (2) *No*

### Semantic Differential Ratings of Adventist Schools and Churches

Please indicate the image of the Seventh-day Adventist CHURCH/SCHOOL you have come to know over the years. Please check each row (or pair). For example, the first row has the "dull - exciting" pair and the last row has the "closed - open" pair.

- 281/301. Dull / Exciting
- 282/302. Cold/ Warm
- 283/303. Disorganized / Organized
- 284/304. Rigid/Stiff / Flexible
- 285/305. Not growing / Growing
- 286/306. Rude / Kind
- 288/307. Dark / Bright
- 289/308. Exclusive / Inclusive
- 290/309. Unfair / Fair
- 300/310. Closed / Open

*Comment*

Note that there was a numbering error such that there was no item 287.

The technique used for these questions is referred to as the "semantic differential" technique, which was originally developed in order to undertake *The Measurement of Meaning* (Osgood, Suci, & Tannebaum, 1957). While there is no set group of adjectives used in the research, application across a wide variety of cultures found three basic "dimensions" -- activity (e.g., fast/slow), evaluation (e.g., good/bad) and potency (strong/weak). In the present context, however, all of the ratings seemed to create a single good-bad dimension, with items rating predictably ("good" being warm, bright, fair, organized, etc.). Apparently other adjectives would be required to exam the "potency" and "activity" dimensions of these concepts.

**Intrinsic/Extrinsic Religious Orientation**

Indicate how much you disagree or agree with these statements.

Choose from these answers: (1) *I strongly disagree*; (2) *I tend to disagree*; (3) *I'm not sure*; (4) *I tend to agree*; (5) *I strongly agree*

311. I enjoy reading about my religion.

312. I go to church because it helps me to make friends.

313. It doesn't much matter what I believe so long as I am good.

314. Sometimes I have to ignore my religious beliefs because of what people might think of me.

315. It is important to me to spend time in private thought and prayer.

316. I have often had a strong sense of God's presence.

317. I pray mainly to gain relief and protection.

318. I try hard to live all my life according to my religious beliefs.

319. What religion offers me most is comfort in times of trouble and sorrow.

320. My religion is important because it answers many questions about the meaning of life.

321. I would rather join a Bible study group than a church social group.

322. Prayer is for peace and happiness.

323. Although I am religious, I don't let it affect my daily life.

324. I go to church mostly to spend time with my friends.

325. My whole approach to life is based on my religion.

326. I go to church mainly because I enjoy seeing people I know there.

327. I pray mainly because I have been taught to pray.

328. Prayers I say when I'm alone are as important to me as those I say in church.

329. Although I believe in my religion, many other things are more important in life.

338. I would prefer to go to church:

(1) *A few times a year or less*; (2) *Once every month or two*; (3) *Two or three times a month*; (4) *About once a week*; (5) *More than once a week*

*Comment*

The measures of Intrinsic and Extrinsic Religious Orientation and scales derived from them are among the most frequently used scales in the psychology of religion (for a basic review, see Donahue, 1985). Factor analysis indicated the presence of two separate factors corresponding to intrinsic and extrinsic religiousness. Item analysis indicated that for this Adventist population, the scales were best constructed as follows:

Intrinsic Religious Orientation, 311, 315, 316, 318, 320, 325, 338

Extrinsic Religious Orientation, 312, 313, 314, 323, 324, 326, 327

It should be noted that because the population involved were adolescents, rather than the adults on whom the scale was originally developed, an item measuring how often the students would prefer to attend church was used, rather than a measure of actual church attendance.

*The **Intrinsic Religious Orientation Scale** had reliabilities from .78 (6th grade girls) to .85 (8th grade boys).*

*The **Extrinsic Religious Orientation Scale** had reliabilities from .70 (10th grade girls) to .78 (6th grade boys)*

Some research has also used a fourfold taxonomy based on splitting both scales into "high" and "low." It has been found that while those who score high on the Intrinsic Religious Orientation Scale and low on the Extrinsic Religious Orientation Scale know as intrinsics show the benefits of devout (low in prejudice and dogmatism, for example), those who score high on both scales, known as proreligious display the opposite characteristics. (Those who score low on both scales are called nonreligious, and those who score low on the Intrinsic Religious Orientation Scale and high on the Extrinsic Religious Orientation Scale are known as extrinsics. In the Valuegenesis2 reports, these high-low splits were taken by using the midpoints of the scales (rather than using mean or median splits).

A **high** scale score was an average of 3.0 or high on the scale items; all other scores were classified low.

**Nature of Interpersonal Relationships**

These questions have to do with your relationships. Answer as honestly as you can. Below, "3" is neutral.

330. Do you feel your PARENTS accept you unconditionally?

(1) Yes; (2) Y; (3) Neutral; (4) N; (5) No

331. How important to you are your relationships with other STUDENTS on your campus?

(1) Important; (2) I; (3) Neutral; (4) U; (5) Unimportant

332. How important for you are your relationships with TEACHERS at your school?

(1) Important; (2) I; (3) Neutral; (4) U; (5) Unimportant

333. How willing are you to seek out relationships with TEACHERS?

(1) Willing; (2) W; (3) Neutral; (4) U; (5) Unwilling

334. Generally speaking, how available are TEACHERS at your school to talk to in times of need?

(1) *Available*; (2) *A*; (3) *Neutral*; (4) *U*; (5) *Unavailable*

### **Willingness to Talk About "Serious Issues"**

Items 335-337 have the following response options: (1) *Willing*; (2) *W*; (3) *Neutral*; (4) *U*; (5) *Unwilling*

335-337. How willing are your TEACHERS/PARENTS/PASTORS at your school to talk to you about sensitive issues (sex, drugs, etc.)?

### **Preferred Frequency of Church Attendance**

338.[Incorporated into the Intrinsic Religiousness Scale scale; see item 110, above]

### **How Religious Are You?**

339. How religious do you consider yourself to be?

(1) *Not at all religious*; (2) *Somewhat religious*; (3) *Very religious*

### **Educational Aspiration**

340. How far in school do you think you will get?

(1) *I will drop out of school before I get a high school diploma*; (2) *I will finish high school only*; (3) *I plan to go to a vocational or trade school after high school*; (4) *I plan to go to two years of college or a community college*; (5) *I plan to graduate from college (4 years)*; (6) *I hope to get a Master's degree*; (7) *I hope to get a Ph.D. degree.*; (8) *I plan on a post graduate degree in medicine, dentistry, teaching, or other professional program.*

### **Following My Religion**

341. I try to follow the teachings of my religion.

(1) *Agree very much*; (2) *Agree somewhat*; (3) *Disagree somewhat*; (4) *Disagree very much*; (5) *I have no opinion about this statement*

### **Religiousness of Friends**

How closely do the following statements describe YOUR CLOSEST FRIENDS - for each statement please indicate if it is completely true, somewhat true, somewhat untrue, or completely untrue.

Items 342-345 have the following response options: (1) *It is completely untrue*; (2) *It is somewhat untrue*; (3) *It is somewhat true*; (4) *It is completely true*

342. My friends attend church almost every week.

343. My friends like to go to church-sponsored social events.

344. My friends belong to church-sponsored groups for teenagers

345. My friends are very religious minded

## Parenting Style

If you are NOT in high school, skip to question 371. High school only - this section lists various attitudes and behaviors of parents. Write a number in the space provided which best describes to what extent your MOTHER and FATHER were like or unlike each of the statements. Respond to each item in terms of your first 16 or so years of life.

Choose from these answers:

Items 346-370 have the respondent indicate whether first their Mother and then their Father were ; (1) *very unlike this*; (2) *moderately unlike this*; (3) *moderately like this*; (4) *very like this*

346. Spoke to me with a warm and friendly voice
347. Did not help me as much as I needed.
348. Let me do those things I liked doing.
349. Seemed emotionally cold to me.
350. Appeared to understand my problems and worries.
351. Was affectionate to me.
352. Liked me to make my own decisions.
353. Did not want me to grow up.
354. Tried to control everything I did.
355. Invaded my privacy.
356. Enjoyed talking things over with me.
357. Frequently smiled at me.
358. Tended to baby me.
359. Did not seem to understand what I needed or wanted.
360. Let me decide things for myself.
361. Made me feel I wasn't wanted.
362. Could make me feel better when I was upset.
363. Did not talk with me very much.
364. Tried to make me dependent on her/him.
365. Felt I could not look after myself unless she/he was around.
366. Gave me as much freedom as I wanted.
367. Let me go out as often as I wanted.
368. Was overprotective of me.
369. Did not praise me.
370. Let me dress in any way I pleased.

### *Comment*

Recall that only 9-12th graders responses were scored for these scales.

These items, originally used on the Australian Valuegenesis instrument, examine parenting style. They are scored as two bipolar scales, one for "caring," the other for "overprotectiveness."

For consistency with previous, items are scored from 0 to 3, rather than 1 to 4. Some of the items are "reversed scored:" agreeing with them produces a low score toward the total of the corresponding index, while disagreeing with them produces a high score. These item reversals are indicated by an "R" in the listings below.

The **Caring Parenting Style Scale** consists of items 346, 347R, 349R, 350, 351, 356, 357, 359R, 361R, 362, 363R, 369R.

The **Overprotective Parenting Style Scale** consists of items 348R, 352R, 353, 354, 355, 358, 360R, 364, 365, 366R, 367R, 368, 370R.

The reliabilities for the students' ratings of their father's **Overprotective Parenting Style** ranged from .75 (9th grade girls) to .85 (12th grade boys)

The reliabilities for the students' ratings of their father's **Caring Parenting Style** ranged from .88 (9th grade boys) to .93 (12th grade girls).

The reliabilities for the students' ratings of their mother's **Overprotective Parenting Style** ranged from .80 (9th grade girls) to .85 (12th grade girls)

The reliabilities for the students' ratings of their mother's **Caring Parenting Style** ranged from .88 (10th grade boys) to .92 (12th grade girls).

Those scoring over the midpoint on the Overprotective Parenting Style Scale (in this case 19.5) are considered overprotective; those below it are labeled as promoting independence. Those scoring over the midpoint on the Caring Parenting Style Scale (in this case 18) are considered caring; those below it are labeled as indifferent.

*Overprotective + caring = affectionate constraint*

*Overprotective + indifferent = affectionless control*

*Promoting independence + indifferent = neglectful parenting*

*Promoting independence + caring = optimal parenting*

### **Characteristics of Adventist Schools**

The following set of questions has to do with the need for change in Adventist SCHOOLS.

Choose one answer: (1) I definitely disagree; (2) I tend to disagree; (3) I'm not sure; (4) I tend to agree; (5) I definitely agree

371. Schools need to become more modern in their thinking.

372. Schools are exciting and interesting.

373. Schools should stay just as they are.

374. Are turning young people off to Adventism.

375. Are in need of a great deal of change.

376. Need to put more emphasis on traditional Adventist values.

377. Are healthy.

378. Are dying.

379. Are helping young people accept and appreciate Adventism.

### **Interest in Sermon Topics**

Pick only five of the following sermon topics that hold the most interest for you. Number those five from least important to most important by telling us those choices. (1= your first choice and so on until number 5= your fifth choice).

- 380. Last day events
- 381. Personal devotional life
- 382. How to study your Bible
- 383. How to overcome personal problems
- 384. How to understand God's will
- 385. Understanding Bible doctrines
- 386. Following Christ everyday
- 387. Relationships
- 388. Sabbath observance
- 389. Witnessing and sharing ones faith
- 390. Forgiveness
- 391a. God's grace
- 391b. Christ's ministry
- 392. Living for Christ in a modern world
- 393. Standards and behaviors
- 394. Bible books and their contents
- 395. Bible people and their lives of faith
- 396. Application of Bible principles to every day life

### **Positive Influences**

The first Valuegenesis study listed a group of "effectiveness factors" which were related to the development of mature faith and denominational loyalty. The current report refers to them as "positive influences" in the areas of family school and church, while retaining the original numbering system for the sake of comparability. missing numbers indicate that a particular item was not assessed in the Valuegenesis2 survey.

#### *Positive Family Influences*

- PFI 1 Mother comfortable with faith talk: "comfortable" or "very comfortable based on item 196.
- PFI 2 Family enforces drug standard: a "more strict" rating based on the Family Enforcement of Drug Standards Scale.
- PFI 3 Parents oppose alcohol use: based on parents being "very" or "extremely" upset about attendance at a drinking party, item 180.
- PFI 4 Family worship interesting, meaningful: family worship rated as both based on items 199 and 200.
- PFI 5 Father comfortable with faith talk: "comfortable" or "very comfortable based on item 195 (R)
- PFI 6 Loving, caring family: based on scoring "high" on the Family Climate Scale.
- PFI 7 Punish wrong behavior: based on rating "tend to or definitely agree for item 179. (R)
- PFI 8 Mother is highly religious: based on item 190 (R)
- PFI 9 Enforces SDA way of life standards: based on rating "more strict" on the Adventist Lifestyle Enforcement Scale
- PFI 10 Father is highly religious: based on item 189.

- PFI 11 Parent-child communication: based on having a good 10 minute talk three or more times in the last month; see item 173.
- PFI 12 Frequent family worship: once or more a week based on item q198.
- PFI 13 Parents set limits: based on scoring "moderate" or "high" on the Parental Monitoring Scale.
- PFI 14 Parent "often" help with homework based on item 181.
- PFI 15 Mother often talks to child about faith: once or more a month based on item 192(R)
- PFI 16 Father often talks to child about faith: once or more a month based on item 191 (R)
- PFI 17 Enforces popular culture standards: "more strict" on the Popular Standards Enforcement Scale
- PFI 18 Mother and child often talk faith together: more than once a month, based on item 194. (R)
- PFI 19 Family helping projects: family engages in helping projects "sometimes" or "often" based on item 260
- PFI 20 Father and child often talk faith together: more than once a month, based on item 194 (R)

#### *Positive Church Influences*

- PCI 4 Warm climate: High on the "Warmth" scale.
- PCI 5 Programs are interesting: based on rating this statement true or very true (item 213)
- PCI 6 Programs are thought-provoking: based on rating this statement true or very true (item 214)
- PCI 7 Teachers are caring / supportive: based on rating both of these statements true or very true (items 216, item 218)
- PCI 8 "Often" experience caring peers: based on item 262.
- PCI 10 Experience frequent intergenerational programming: based on item 264.
- PCI 12 Has a thinking climate: : High on the "Thinking" scale.

#### *Positive School Influences*

- PSI 1 Good, competent teachers: based on rating item 207 "agree" or "strongly agree"
- PSI 3 School spirit is high: based on rating item 205 "agree" or "strongly agree"
- PSI 4 Teachers don't put down students: based on rating item 204 "disagree" or "strongly disagree"
- PSI 5 Caring, supportive teachers: based on rating both items 208 and 210 "agree" or "strongly agree"
- PSI 6 Enforces SDA way of life standards: rating of "more strict" on the Adventist Lifestyle Enforcement Scale
- PSI 9 Students talk to teachers about faith: based on saying this occurs "sometimes or often (item 263).

## References

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