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# Developing a Discipleship Measurement Tool

## Introduction

One of the key postulations of Christianity is that there is an inherent link between becoming a Christian and being a disciple. For many, the church is seen as having been called into existence for the purpose of making disciples, and only as it undertakes this endeavor is its original commission fulfilled (Burrill 1996:22). But the identification of a “link” between becoming a Christian and being a disciple implies that there is a difference between the two. While some go so far as to assert that it is not possible to be a Christian unless one is also a disciple (Bonhoeffer 1959:45-46), others have drawn the distinction between believer and disciple to highlight a major dilemma facing contemporary Christianity. Mark Brown, for example, contends that “the Church is teaching people how to become Christians, but not disciples” (2012:2). This distinction can be useful in that it highlights the dual focus in the Great Commission: first, to make disciples, and second, to teach them to obey Jesus’ commands (Matt 28:19-20). The distinction can also be characterized as the difference between making disciples, and growing disciples.

A Christian disciple can be defined as one who follows Christ in order to learn from him, live like him, and grow more like him (Taylor 2013:10-11). The emphasis is on the development of Christ-like characteristics over time. The primary means by which this is seen as occurring is through a close and personal relationship between the disciple and Christ. “In this relationship, one is to be constantly learning more about the person, while at the same time living in subjection to that person. The person being disciplined is never completely disciplined, but [is] always in the process of being disciplined” (Burrill 1996:101).

Zerbe (2013:4) argues that the true meaning of discipleship is found within the notion of Christian citizenship, where a person finds an identity that transcends all prior notions of personal identity. The Christian faith is thus viewed as a “dynamic loyalty” operating within all arenas of life and cutting across all other citizenship identities; being “sometimes in harmony with them [and] sometimes in conflict with them” (Zerbe 2013:8). Cherry (2016:198) contends this process will be evidenced through a sense of “transcendent purpose,” where a person moves beyond the horizon of one’s own interests and desires, to that of the Master’s.

This development of Christian faith, being centered around a relationship with Christ, appears to be an intangible and ostensibly beyond scientific measurement. Marking (2005:38) argues, however, that faith is defined by our choices and actions and is far from abstract in its daily-life application. Waggoner (2008:10) contends that God designs a radically different lifestyle for those who choose to follow him and that this change is inherently observable. This idea also echoes the thoughts of Ellen White (1898:57).

That regenerating power, which no human eye can see, begets a new life in the soul; it creates a new being in the image of God. While the work of the Spirit is silent and imperceptible, its effects are manifest. If the heart has been renewed by the Spirit of God, the life will bear witness to the fact. (57)

This belief that the impact of the Holy Spirit on a person’s life can be measured in a quantifiable way has led to the construction of various instruments for the purpose of identifying the growth that is occurring. At times these have been created for the purpose of attempting to gauge the spiritual condition of a group of believers. In other instances, the focus is at the individual level with the instrument designed to promote personal feedback and reflection. In the context of this report, the development and use of such a tool may be an effective way to substantiate or refute Brown’s (2012:2) contention that the Church is not teaching people how to become disciples; at the very least, it holds the potential to identify key areas where resources are needed to support and grow disciples in their walk with Christ.

## **Existing Frameworks for Measuring Discipleship**

Tools that currently exist to measure discipleship are generally based on a self-report survey utilizing a selected response, Likert-type scale. Each is based on a particular framework reflecting a distinct understanding of what discipleship looks like and thus what it is that should be observed and measured. These frameworks in turn dictate the type of questions

asked and the categories of feedback provided to participants. The following paragraphs briefly summarize and analyse a number of these existing frameworks.

The *Summit Point Discipleship Assessment Test* (Styron 2004:58) suggests seven key areas of growth that can be measured: *willingness to follow and obey Christ, identification with Christ, willingness to grow and learn, total surrender, ongoing relationship with Christ, growing in Christ-like character and evangelism, and victory over sin*. The assessment is a pen and paper instrument of 72 scrambled items based on a six-point Likert scale. Response categories range from Strongly Agree to Strongly Disagree, with no neutral response option. A scoring guide is provided, allowing participants to calculate a final mark in each of the seven areas. Styron admits that there was “an insufficient pool of test respondents to permit conventional statistical analysis to be applied” (72). While it is thus not possible to determine the psychometric properties of the instrument, field-testing was carried out within seven different church groups (on six separate occasions) with the ensuing feedback providing numerous revisions both to the instrument and to the self-scoring procedures. These multiple pilot trials assisted in ensuring the construct validity of the instrument (62). Specific information is not provided as to the method for sample selection, though from the details provided the best description (as is common to most tools covered in this review) would be that of convenience sampling (Cohen, Manion, and Morrison 2011:155).

The *Anatomy of a Disciple Self-Assessment* (Taylor 2013:44) is based on a multi-layer model where *humble-submission* is placed at the center. The layers within the model are represented as *The Core* (humbly submitted, biblically formed), *Choices* (sacrificially generous, morally discerning, relationally healthy, personal choices) and *Compassions* (intentional blessing, culturally engaged, inclusive community). The instrument consists of 144 questions containing theme and recurring theme grouping (non-scrambled). The assessment originated from and was tested at the Well Community Church in Fresno, California, with approximately 900 attendees completing the assessment (M. J. Alanis, January 21, 2015, email to author).

Overall results from the trial were reported as positive, though a few constructs demonstrated non-normality. “These [constructs] were primarily in the area of believing, which seems reasonable that such results would be distributed higher given the religious beliefs of the church” (M. J. Alanis, January 21, 2015, email to author).

The *Together Growing Fruitful Disciples* (TGFD) framework and online assessment tool (Together Growing Fruitful Disciples 2014) is the result of a collaborative initiative between the General Conference of Seventh-day

Adventists and Andrews University. It contains four central pillars: *Connecting* (with God, self, family, church, and others); *Understanding* (spiritual growth, nature of God, sin and suffering, redemption, restoration), *Equipping* (being discipled and discipling others in connecting understanding and ministering); and *Ministering* (personal vocation, friendships, community service, stewardship, evangelism). The online questionnaire consists of 63 scrambled items predominantly utilizing a six-response Likert scale (*never true through to always true*), though in places a scale with three responses was used (*very little or not at all, some, very much or a lot*). Following the completion of the online assessment, a summary of results is published under each of the 21 subheadings (within the four key pillars). Opportunities are provided for individuals to “learn more” and to determine a course of action based on their assessment results. In addition to the full 63-item inventory, a short-form 20-item inventory has been constructed by the authors, with a self-scoring facility. Information on the testing of this instrument was not available at the time of writing this report.

The *Growing in Discipleship* instrument (Pratt 2014:1) is a model based on five key areas: *Connecting, Worshipping, Growing, Sharing, and Serving*. It purports to utilize key themes, approaches, and terminology from the following four sources: TGFDF (Together Growing Fruitful Disciples 2014), Gracelink (General Conference of Seventh-day Adventists 2015), Ben Maxson’s program: Steps to Discipleship, and the iFollow Discipleship Resource (North American Division of Seventh-day Adventists 2010). No formal testing of the instrument has been carried out.

*The Transformational Discipleship Assessment* (Geiger, Kelley, and Nation 2012:223) bases its approach on eight attributes it considers will be consistently displayed in the lives of mature believers: *Bible engagement, obeying God and denying self, serving God and others, sharing Christ, exercising faith, seeking God, building relationships, and being unashamed* (transparency). This online assessment contains 82 scrambled items and upon completion provides a printout of “achievement” in each area along with a list of the lowest scores within each category. Answers by the respondent are recorded on a five-point Likert scale with a neutral response provided as option 3. No information about the testing of the instrument is available.

*The Christian Life Profile Assessment Tool* (Frazee 2005:6) is a discipleship kit designed to enable churches to assess beliefs, practices and attitudes within 30 key competencies. The tool formed the basis for the Willow Creek Church Reveal Spiritual Life Survey.

*The Follow Discipleship Roadmap* (North American Division of Seventh-day Adventists 2010) is based on the first Value Genesis Report (Benson and Donahue 1990, 1) and is designed to be a spiritual assessment tool for use by both individuals and groups. Although a theoretical framework

is not outlined, the items cover areas such as: *social justice, community engagement, faith in Christ, personal devotions, generosity, helping others, and faith sharing*. The online questionnaire contains 38 scrambled questions that respondents rank on a seven-point Likert scale ranging from *Never True to Always True* (no neutral selection). Upon submitting the completed questionnaire, personal results are correlated with the iFollow discipleship curriculum with computer generated results suggesting a number of lessons to pursue. Over 100 lessons in PDF and PowerPoint format are available, with a small number being automatically selected based on the responses provided. While the instrument is based on the Value Genesis project of the North American Division of Seventh-day Adventists, the application to the iFollow discipleship curriculum has not been validated (Dave Gemmell, January 24, 2015, email to author).

*The Spiritual Assessment Inventory (SAI)* (Hall and Edwards 2002:341) consists of two primary dimensions (Quality of Relationship with God, and Awareness of God) and six subscales: *Awareness, Realistic Acceptance, Disappointment, Grandiosity, Instability, and Impression Management*. “The quality dimension of the SAI was designed to assess different developmental levels of relationship with God from an object relations perspective” (342). For the purpose of testing the instrument, a total of 79 items were administered to a sample of 438 subjects from a private Protestant university. These items were initially subjected to an exploratory factor analysis (oblique rotation using direct oblimin). To test the overall model a confirmatory factor analysis was performed using Amos to test the fit of the data. The completed instrument contains 54 questions within six scales. Reliability analyses confirmed good internal consistency (alpha) for all scales.

In examining the tools resulting from these frameworks, it was noted that few had been tested to determine the psychometric properties or the reliability of the scales within the instrument. This is considered an important process in ensuring that the instrument is measuring what it purports to measure and that the results are valid and reliable (Cohen, Manion, and Morrison 2011:180-184). Thus within the current study the testing of the instrument was considered an important part of the development process.

## The Current Study

The current project was initiated in response to a commission by the South Pacific Division of the Seventh-day Adventist Church, to investigate the nature of Discipleship (see Hattingh et al. 2016:156-171). The project brief included the development of an instrument whereby the attainment of discipleship could be measured within an Adventist context.

After considering the various options available for constructing an instrument, a self-report survey design was selected. Survey methodology allows the collection of large amounts of data in a relatively short period of time, using well-defined terminology and questions that can be reproduced by different researchers at different times, thus producing results that can be compared and contrasted (Hartas 2010:258). Research conclusions can be supported by large data banks, providing the ability to generalize the findings (within given parameters), and the capacity to determine the degree of confidence associated with a particular set of findings (Cohen, Manion, and Morrison 2011:256-257).

The first part of this project involved a study of discipleship within scripture, an examination of the writings of Ellen White on discipleship and a review of current literature within this area. This data was complemented by a qualitative analysis of interviews conducted with 28 leaders within the South Pacific Division of Seventh-day Adventists and 12 Adventist leaders from other parts of the world (see Hattingh et al. 2016:156-171). From this, a definition of discipleship was formed and a model for expressing visible aspects of discipleship was developed (see figure 1).

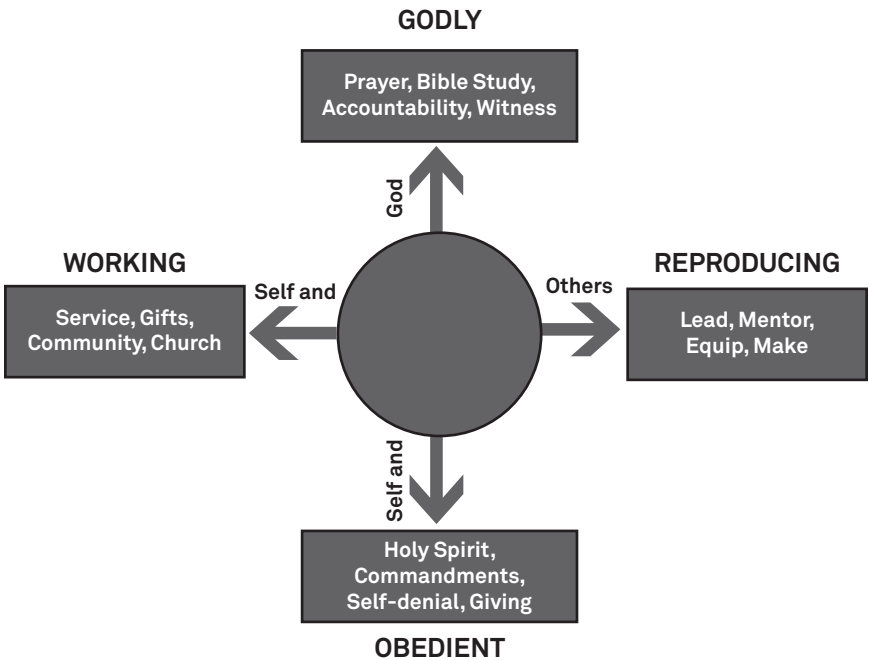


Figure 1. Working model of “The Growing Disciple”

The initial model became the foundation for the development of survey items. Key terms and concepts associated with the four dimensions of the model guided and assisted the researchers in developing sets of questions that addressed key concepts in multiple ways. Over 100 items were initially proposed; over time this was refined to 80 for reasons described below.

## Survey Construction

There is a long standing acknowledgement that care needs to be taken with the wording of survey questions/statements, due to the significant impact that even relatively minor changes can make on the understanding of respondents and thus to the accuracy of the data collected (Lavrakas 2008:657). Numerous principles have been suggested by researchers as the means to accomplish this. These include the need for brevity, clear and unambiguous question, avoiding the use of double negatives, with each question or statement seeking to only measure a single idea (Muijs 2011:43-44). Gorard (2001:107) stresses the need for the questions to have an explicit purpose, and further, to carefully avoid hypothetical situations, jargon, technical language, and ambiguity. Yet while there is a need for simple and clear wording, it is recommended to adopt a relatively formal style throughout the survey as this is considered helpful in ensuring respondents take the questions/statements seriously (107). Each of the above mentioned principles were considered when constructing the survey instrument for the current study.

Though a number of methods exist by which respondents can provide answers on survey instruments, it has been found that selected-response or “forced choice” items, improve consistency, make data tabulation easier, and enhancing the ease of data analysis (Cohen, Manion, and Morrison 2011:256). The Likert scale is the most widely used scale within survey research, and is considered the most straight-forward to administer (Dowling and Brown 2010:75, 76). In line with this, the current study initially selected a four-point Likert scale for measuring each item, ranging from *Strongly Agree*, to *Strongly Disagree*.

Agreement is not universal regarding the use of an “unsure” or “undecided” category. Some argue it is best omitted (Cox and Cox 2008:9-16) in order to ensure respondents commit to a particular degree of feeling about a given statement. It is posited that *questionnaire drift* may set in, with respondents using this category in place of making a decision about the given statement (Wilkinson and Birmingham 2003:13). Others however support the validity of a neutral response, arguing that without it, respondents may simply omit items, or select both *agree* and *disagree*,



if not permitted to answer in a neutral manner (Dowling and Brown 2010:76). The current study has not included an *unsure* category, requiring respondents to commit to either agreeing or disagreeing with the given statements.

## Sample Selection

Cohen, Manion, and Morrison (2011:143) suggest a number of factors that should be considered when selecting the sample for a study. These include sample size, representativeness and sample parameters, access to the sample, and the sampling strategy to be used. The target sample within the current study was Seventh-day Adventist Church members within the South Pacific Division. An online version of the survey (using Survey-Monkey) was selected as the collection method, with advertising occurring through a South Pacific-wide publication, in addition to communication at both conference, local mission and church level.

It is recognized that samples extracted through volunteer participation can be biased (Cohen, Manion, and Morrison 2011:160) with specific reasons why particular groups of individuals are involved more than others. It is likely within the current study for example that respondents living in areas where Internet access was not readily available (such as certain areas within the island-fields) may be under-represented in the overall sample of respondents. This may result in a sample that is not representative of the wider population, making it more difficult to generalize the findings (Bryman 2012:176-177).

## The Pilot Study

A pilot study or test-run of a research instrument helps to ensure that the instructions and questions are clear, and provides an opportunity to revise areas of the questionnaire as needed (Gall, Gall, and Borg 2010:41). It has been suggested that pilot studies are ideally carried out with between five and ten subjects (Wiersma and Jurs 2009:198).

The current research carried out an initial pilot study using nine adults, representing a variety of ages and backgrounds. Information collected from participants included feedback on the following: clarity of instructions, clarity of questions, comprehension of key vocabulary and phrases, overall perceptions of the survey exercise, and level of difficulty to complete. In order to explore the clarity of statements, participants were asked to paraphrase, explain, and discuss a number of the statements.

Based on feedback obtained from the pilot study a number of changes to the instrument were made:



1. A number of survey items (n=23) were identified that were considered best answered using an *Always True to Never True* scale as opposed to *Strongly Agree to Strongly Disagree*. The survey was thus split into two parts, each utilizing a different scale.
2. The Likert Scale was altered from a four-point to a six-point scale.
3. Eight survey items were reworded to ensure the intent had greater clarity.

All participants completed the survey in under 10 minutes and found the instructions to be clear and unambiguous. Participants reported the survey items to be of good length and simply worded, allowing them to select responses quickly and easily.

### Testing the Instrument

The resulting instrument (Growing Disciples Survey) contained 80 questions within two sections: the first 23 items asked respondents to rate how often they perceived something to be true (on a six-point Likert scale ranging from *Always True to Never True*). The remaining 57 items required participants to rate how strongly they felt about certain statements (on a six-point scale ranging from *Strongly Agree to Strongly Disagree*). Following the collection phase, data were transferred to SPSS21 for analysis. Items 1-23 were coded as follows: Always True = 6, Almost Always True = 5, Usually True = 4, Sometimes True = 3, Seldom True = 2 and Never True = 1. Similarly, items 24-80 were coded: Strongly Agree = 6, Agree = 5, Slightly Agree = 4, Slightly Disagree = 3, Disagree = 2, Strongly Disagree = 1.

A total of 200 people responded to the invitation to complete the survey. A small number of respondents left a majority of the survey incomplete and these were deleted from the analysis, leaving a sample of 185 to be considered.

The two sections of the survey were subjected (separately) to a principal components analysis (PCA). Oblique rotation was selected (Direct Oblimin); this being considered the most appropriate method when it is believed a significant correlation exists between underlying factors within the variables (Tabachnick and Fidell 1996:659-730). The following section outlines the PCA analysis and subsequent reliability analyses for each section.

### Analysis: Questions 1-23

A PCA was performed on 23 items. The Kaiser-Mayer-Olkin measure verified the sampling adequacy for the analysis, KMO = .936, exceeding the recommended value of .6 (Kaiser 1974:31-36) and Bartlett's Test

of Sphericity (Bartlett 1954:296-298) reached statistical significance, supporting the factorability of the correlation matrix (Sig = .000). Four factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 65.81% of the variance. The scree plot was ambiguous and showed inflexions that would justify retaining either 2 or 4 factors. The results of a Parallel Analysis however revealed only three components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (23 variables by 185 respondents). The three-component solution explained a total of 60.72% of the variance.

All three components demonstrated a number of strong loadings, with component 1 representing the concept of Spiritual Disciplines; component 2 Loving my Community; and component 3 Faithful Participation. Most items loaded strongly on a single component, though 8 items loaded on two components, with one item loading on all three components. In all cases the item was retained within the component with the strongest loading.

The internal reliability of each scale was tested to determine Cronbach's Alpha (CA). The following table summarizes for each scale: the number of total items, items deleted in response to *Alpha if Item Deleted*, the final number of items in each scale, and the final Alpha value for each scale.

**Table 1. Scale summaries**

Scale	Total number of items	Item/s Deleted	Adjusted number of items	Final Alpha for each scale
Spiritual Disciplines	9	No. 10	8	.912
Loving My Community	10	–	10	.895
Faithful Participation	4	–	4	.776

The following are the three resulting scales (with items listed in order of loading strength):

#### A. Spiritual Disciplines

1. I spend time reading the Bible each day.
16. I commit daily time to meditating on the Word of God.

2. Every day I ask God to send the Holy Spirit to guide me.
13. I spend time each day memorizing Scripture passages.
23. I ask God to be part of my life each day.
12. I sense God's presence in my daily life.
5. I confess my wrong thoughts and actions to God and ask for His forgiveness.
6. What I watch and listen to shows that God is my first priority.

#### B. Loving My Community

19. I show patience and kindness to those around me, even when I am mistreated.
22. I confess to others when I have wronged them in some way.
18. I seek forgiveness from those I hurt.
4. I show love for my family by unselfishly trying to meet their needs.
3. My words and actions show my commitment to imitate Christ's example, even when it is difficult.
20. I do my best for God in all I do.
14. By God's grace, I forgive others who hurt me.
21. I seek God's guidance for the decisions I make.
17. I do what God wants me to, even if it means I suffer hardship.
11. I am willing to accept advice and guidance from some other Christians.

#### C. Faithful Participation

15. I attend church each week.
8. I attend Sabbath School each week.
7. My loyalty to following Christ stays strong even when things go wrong.
9. I am willing to do what God asks of me.

### **Analysis: Questions 23-80**

A PCA was performed on the remaining 57 items. The Kaiser-Meyer-Olkin measure verified the sampling adequacy,  $KMO = .939$ , and Bartlett's Test showing significance ( $Sig = .000$ ). Nine factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 73.76% of the variance. The scree plot suggested the possibility of 4 factors with a Parallel Analysis confirming the suitability of a 4 component solution. The four-component solution explained a total of 60.64% of the variance.

All four components demonstrated strong loadings, with component 1 representing the concept of Spiritual Identity; component 2 Serving My Community; component 3 Sharing Jesus; and Component 4 Spiritual Gifts. While most items loaded strongly on a single component, 10 items loaded on two components, with no item loading on more than 2 components. In each case the item was retained on the component demonstrating the strongest loading.

The internal reliability of the scales was tested to determine Cronbach's Alpha (CA). The following table summarizes for each scale: the number of total items, the items deleted (in response to *Alpha if Item Deleted*), the final number of items in each scale and the final Alpha value for each scale.

Scale	Total number of items	Item/s Deleted	Adjusted number of items	Final Alpha for each scale
Spiritual Identity	24	76, 43, 36, 66	20	.959
Serving My Community	5	44, 50	3	.869
Sharing Jesus	17	77, 65	15	.966
Spiritual Gifts	11	–	11	.903

The following are the four resulting scales (with items listed in order of loading strength):

#### A. Spiritual Identity

- 67. God gives me the desire to obey Him.
- 51. I accept Jesus' righteous, perfect life, as a substitute for my own sinful life.
- 25. Every Christian is called to be a disciple of Jesus Christ.
- 75. I pray regularly for my friends and family.
- 60. I intentionally seek to connect with Jesus throughout the day.
- 64. I enjoy spending time in God's Word.
- 46. I feel convicted by the Holy Spirit when I do wrong.
- 80. My faith in God has grown over the past year.
- 48. God answers my prayers.
- 34. I feel totally forgiven by God.
- 58. The Holy Spirit is at work in my life, changing me.
- 49. God has given me a personal experience with Him that I can share.

- 38. I regularly pray for people who don't know God.
- 56. Christ lives in me.
- 27. The Holy Spirit provides daily guidance in my life.
- 26. My neighbors know that I am a Christian.
- 41. The people I work with know that I am a Christian.
- 32. God is living in me through His Spirit.
- 55. I feel a deep burden for those who don't yet know Jesus.
- 69. I am able to explain the reasons for my faith in God if someone asks me.

#### B. Serving My Community

- 61. I look for people who are in need that I can help.
- 63. I make personal sacrifices so that I am able help others.
- 74. I willingly give of my time so that I can help others.

#### C. Sharing Jesus

- 57. I regularly talk with people outside my church family about my faith.
- 68. I regularly talk with others about my faith in Jesus.
- 39. I look for opportunities to speak about Jesus to others.
- 35. I invite friends to attend worship or small group gatherings with me.
- 79. I actively look for opportunities to share my faith with others.
- 29. I am currently developing significant friendships outside my church community for the purpose of sharing my faith.
- 62. I look for opportunities to talk with my friends about God.
- 78. I help my friends better understand what God is like.
- 31. I talk with other people about my faith in Jesus.
- 30. I use my spiritual gifts to share Jesus.
- 40. I look for ways to help others understand Scripture better.
- 45. I look for ways in which I can help other people build a stronger relationship with Christ.
- 73. I intentionally develop meaningful relationships with other Christians.
- 72. I actively try to help my friends grow stronger in their faith.
- 59. I encourage others to use what they have to serve God.

#### D. Spiritual Gifts

- 42. I see positive results from using the spiritual gifts God has given me.

54. Other Christians have identified and encouraged my spiritual gifts.
24. I am aware of the spiritual gifts God has given to me.
47. God opens opportunities for me to use my spiritual gifts.
52. I am regularly serving in a ministry within my church.
71. I use the spiritual gifts God has given me to help others.
70. I regularly contribute my time to the church I attend.
37. I encourage others to use their spiritual gifts.
53. I have Christian friends I can share my personal needs or struggles with.
28. I have Christian friends I share my spiritual journey with.
33. I help others to reflect on Christ's life and teachings.

Thus a total of seven scales form the final survey instrument, with 71 items retained from the original 80. The items from these seven scales were scrambled in order to produce the final survey instrument.

### **The Seven Discipleship Scales**

Scales were created on SPSS21 for the seven identified Growing Discipleship scales. Descriptive statistics were utilized to explore the properties of these scales. Boxplots revealed eight significant outliers that required further examination, resulting in the deletion of one case from the analysis (n=184). A comparison of scale means with 5% trimmed means suggest that remaining outliers were having little overall effect on results (<.1) (Pallant 2011, 64-65).

### **Preliminary Findings from Participant Responses**

Though the primary purpose of the current study was to test the validity and psychometric properties of the proposed instrument, preliminary analysis was also carried out on data content. Five questions collected demographic information: gender, ethnicity, age, education and baptism status. Nineteen respondents did not provide demographic information (N=166). A slightly higher number of females than males completed the survey, with the highest rate of completion by those in the 45-64 age category. As expected, most respondents were baptized members of the Seventh-day Adventist Church.

## Results

Within the current study, the seven scales created by the SPSS analysis necessitated a modification of the Growing Disciple model. While the four key areas (*Godly*, *Reproducing*, *Obedient* and *Working*) remained the same, some aspects within these key domains altered.

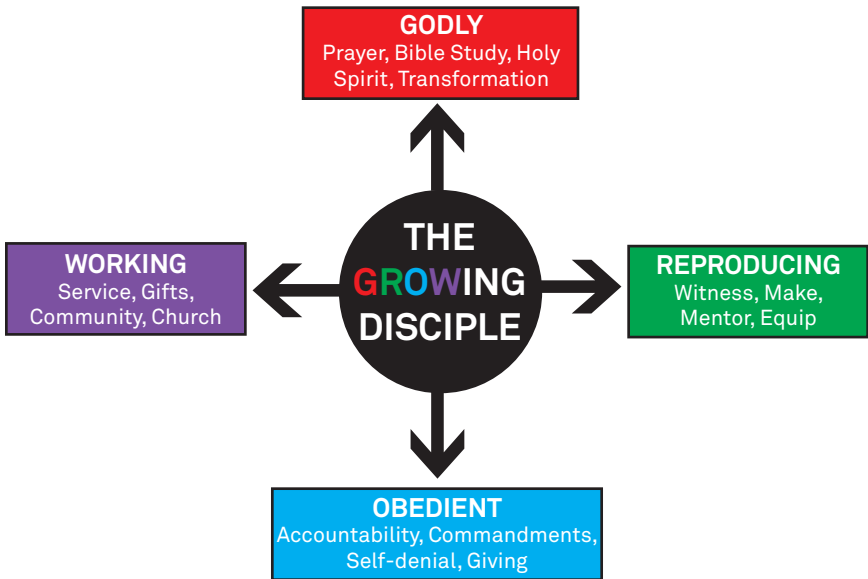


Figure 2. Final model of "The Growing Disciple"

The majority of instruments for attempting to measure discipleship have not been tested to determine the psychometric properties or the reliability of the scales within the instrument. It is possible that it is more convenient for those who develop models of discipleship to retain the adopted model as originally conceived and endeavor to keep survey items matched to this pre-determined framework. Within this approach, however, care must be taken to avoid claims regarding the reliability of scales and indeed that these instruments are measuring what they actually purport to measure (Cohen, Manion, and Morrison 2011:200-201).

## Limitations

A significant limitation of this study is that data were collected exclusively online. As previously discussed, it is likely that not all portions of



the Seventh-day Adventist membership within the South Pacific Division have equal opportunity to respond to an online survey. Certain areas of the South Sea Island fields have less than reliable or regular Internet access. Further studies using this instrument will need to be carried out in hard-copy form in a variety of places to provide further testing of the properties of the instrument.

It is also acknowledged that the number of respondents was not high. Though being sufficient to conduct a factor analysis, further studies will need to be carried out with larger samples in order to replicate these results.

## Conclusion

This instrument responds to the need for validated survey instruments. Ensuring validity led to significant changes in the discipleship model, resulting in a reformed and more reliable discipleship model. Modifications in response to reliability testing also has some significance in the overall philosophy of the model. While disciples undoubtedly lead people to Christ, the model signifies that all relationships between disciples should be reciprocal, non-hierarchical, and mutually edifying. As mature Christians co-labor with new disciples, exercising spiritual gifts and acts of service in love, fruit is produced and the cycle of reproduction continues with and for Christ. With Christ as the Head of the Church (Col 1:18), all members are called to grow in him through discipleship (de Waal et al. 2015:38).

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