

**Assessing Spiritual Development in Business Students:
Lessons Learned and a Suggested Process**

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Abstract

As Christian higher education institutions increasingly engage in continuous quality improvement and outcome measurement, research on spiritual development is filtering down to undergraduate business programs. This paper presents lessons learned from a pilot cross-sectional survey of Abilene Christian University undergraduate business students who completed the Faith Maturity Scale (Benson, Donahue & Erickson, 1993) and responded to other questions about faith development. Based on the results, a number of helpful observations were made for the ACU business program. A method and process for assessing spiritual development at multiple Christian colleges is proposed.

Our Aim

Regional US accrediting agencies and business accrediting bodies (e.g., The Association of Collegiate Business Schools and Programs (ACBSP), and Association for the Advancement of Collegiate Schools of Business (AACSB International)) are encouraging colleges and universities to engage in continuous quality improvement, and for good reason. Rather than simply claim—through anecdote, historical belief, and desire—that certain outcomes are produced in graduates, institutions are being pressed to measure actual performance. Once measured, schools are better equipped to know what to improve in the educational process.

Assessment poses a challenge for Christian colleges and their business programs which claim to foster a student=s spiritual development. Indeed, many colleges assert that the integration of faith and learning is the single most important quality distinguishing them from public institutions. Some are quick to claim that spiritual development is impossible to measure, and in large part, that=s true. We will never see into the recesses of the heart as God does (1 Samuel 16:7), nor can we easily plumb the subtle differences across the patchwork of Christian faith traditions.

But perhaps surprising to some, many scales and instruments measuring various aspects of religiosity have been carefully developed and tested during the past three decades (cf. Hill & Hood, 1999), and much thought has been given to the process of spiritual development. Additionally, Christian colleges have more than a decade of experience with quantitative measures of spiritual maturity since Moberg's (1971) initial conceptualization of spiritual well-being. These quantitative approaches complement qualitative assessment approaches (e.g., Andrews, Bovee, Roller & Walenciak, 2000). Because these scholarly trails have been well

¹Appreciation is expressed to Douglas A. Foster and Jan Meyer of Abilene Christian University, and to Jane Thayer of Andrews University, for their counsel on the methods and interpretation of this study. Responsibility for the study, however, remains with the authors.

trod—though each school cuts its own path, as this study will show—business schools are in an excellent position to make ready use of scales and theoretic perspectives that better inform them of their students' spiritual development.

Our aim in this paper is threefold: To: a) Sample the rich spiritual development literature; b) summarize findings from a pilot test of business students' faith maturity, and; c) suggest a revised process for assessing and fostering spiritual development among college students.

What We Know about Spiritual Development

To use the apostle Paul's architectural metaphor (1 Corinthians 3:9-15), three main aspects of faith construction have been studied: Foundation laying, or introducing people to Jesus Christ; various architectural styles, materials, and trades, or faith building; and demolition, or the disaffection of people from faith. Each of these dynamics has been examined from a variety of disciplinary perspectives. Theologies and methodologies of introducing people to Jesus have been labored over by theologians, missiologists, and church growth specialists. Sociologists, psychologists, and educators have addressed various facets of faith building. And social scientists of many ilk have researched the disaffection of members from communities of faith.

Turning specifically to faith development in youth, many scholars have addressed the process and stages of faith in adolescence (e.g., Bisset, 1997; Francis & Katz, 2000; Gillespie, 1988; Hendricks, 1993; Hoge, McGuire & Stratman, 1981; Strong, 1998). Faith development in college students has been examined as well (e.g., Cureton, 1989; Wheeler, 1989), and approaches for enhancing faith development in college youth have been proposed (e.g., Cannister, 1998; Hertzberg, 1994; Powell, 2000).

In large part, however, this research has not permeated life within many Christian traditions, nor broken the surface in many Christian colleges. Not only is there often discomfort on the part of many with the melding of social science and faith, but the notion of spiritual development is surprisingly shallow for many Christian disciples and theologies. Theologian William Hendricks (1993, pp. 276-277) writes:

Over the course of the church's history, some brilliant thinking has been put forward on the nature and process of salvation, or justification. Likewise, good work has been done on the question of our future hope in Christ, or glorification. But, there's a gap in our theology when it comes to sanctification. What happens between coming to faith and meeting Christ?

If we return to the substance of the aforementioned studies of youth, we find some intriguing observations. Some scholars have wondered whether the Christian college environment provides enough moral and ethical challenge to strengthen a student's character (Holmes, 1991), but research suggests that students in Christian higher education institutions develop in moral thinking (Buier, Butman, Burwell & Van Wicklin, 1989; McNeel, 1991). One study showed that students decline in extrinsic religiosity (religion to serve self), but also decline in their sense of religious well-being (Buier et al., 1989). Another study found that Christian students who attend non-faith-based institutions increase in intrinsic religiosity (heart-felt religion) over their college years at a rate faster than that of Christian college students (Foster & LaForce, 1999). Several of these findings are non-intuitive. Extant studies represent the hem of the garment for institutional research and program assessment on spiritual maturation.

Spiritual development meets some sizable obstacles and may progress at Christian institutions less than many have been assumed. Or, faith may increase dramatically, or even regress. Without data, we are left to guessing, and are unlikely to make effective and efficient improvements in the spiritual nurture of business students.

The Subtleties of Institutional Research: A Case Study

Measures and Method

Abilene Christian University (ACU) students ($n = 264$) enrolled in at least one of seven business classes during the Spring 2001 semester, were asked to complete a survey instrument on spiritual development. (The present cross-sectional study was anticipated to be a pilot for a subsequent longitudinal study wherein we would track individual students' growth over four years). Students completed the 38-item Faith Maturity Scale (Benson, Donahue & Erickson, 1993), and were asked to report their participation in various campus activities. Students also were asked to estimate the degree to which various events and people influenced their spiritual growth while in college. Basic demography questions also were asked. (A copy of the complete survey is provided at the end of this paper.)

The Faith Maturity Scale (FMS) was selected for two reasons: The scale's psychometric construction and performance appeared to be acceptable, and the scale's foundational theology appeared biblical and balanced; that is, it addressed orthodoxy, orthopraxy, and orthocardia—encompassing love for God and others in belief, desire, and action (Mark 12:33) (cf. Bottom, King & Venugopal, 1997; Clapper, 1997; Sider, 1993).²

While several scales of spiritual development and well-being have been used in Christian colleges (Nonneman, 1998), many have not held up well psychometrically (cf. Bassett, Camplin, Humphrey, Dorr, Biggs, Distaffen, Doxtator, Flaherty, Hunsberger, Poage & Thompson, 1991;

²After data were collected and analyzed, a study critical of the FMS's psychometrics was found: Thayer (1993). Also see Donahue's (1993) reply.

Ledbetter, Smith, Fischer, Vosler-Hunter & Chew, 1991). We bypassed other instruments because they measured something besides spiritual development, or reflected primarily devotional or doctrinal aspects of Christian development, but omitted a measure of social responsibility and stewardship.

The FMS did have a drawback for the present study, however: It was normed in mainline protestant denominations and thus, might not reflect the basis for spiritual maturity as held by a conservative protestant student body. This objection was dismissed again, however, by a judgment that the scale items reflected a generally biblical balance between loving God and loving others (Matt. 22:37-40). The FMS and demography and spiritual growth questions were distributed to students in the seven business classes taught by the researchers at the end of the Spring 2001 semester.

Findings

Since we were interested in assessing the spiritual development of undergraduate business students, we omitted responses from non-business majors and graduate students ($n = 65$). We also omitted responses from students reporting no religious affiliation or a non-Christian affiliation ($n = 7$). Undeclared majors were left in the sample since many, if not all, were freshmen who were considering a business major and would have had curricular experiences similar to the freshmen business majors. This left a total sample of 192 from the original 264 instruments completed.

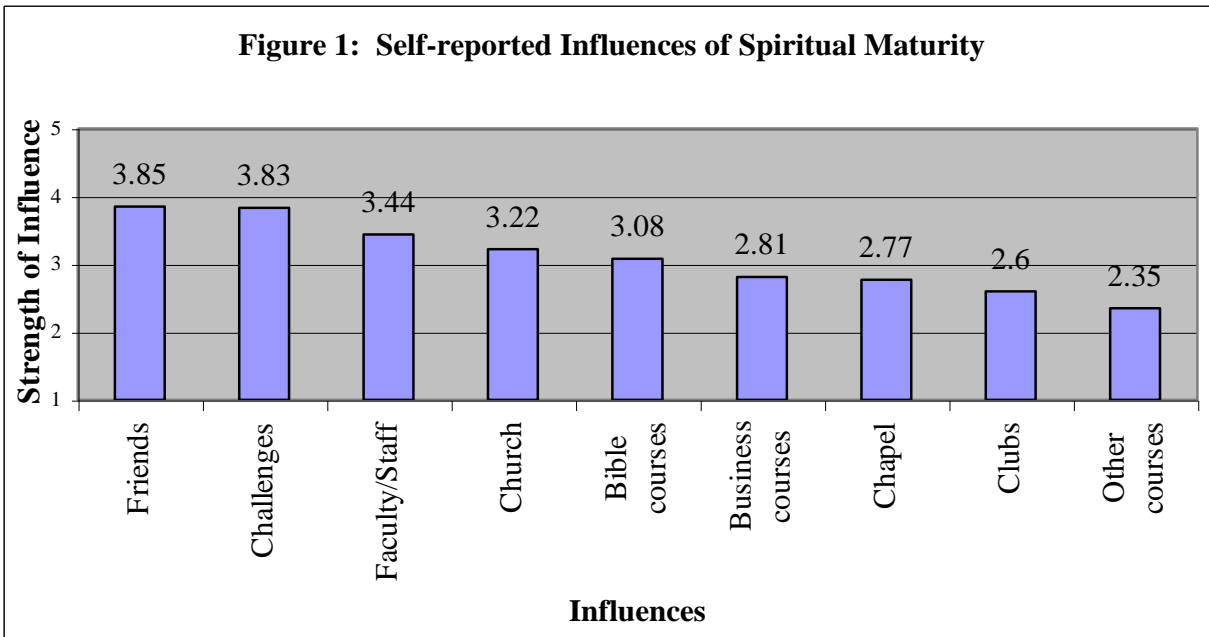
The sample adequately represented each undergraduate student classification with a high of 65 freshmen and a low of 33 sophomores. Females constituted 39% of the sample which is similar to the college's percentage of females (42%). The majority of the respondents (75%) claimed membership in Churches of Christ. An additional 10% were Baptist, 4% were non-denominational in affiliation, 4% were Catholic, and the remainder were associated with other protestant traditions.

Self-reported Faith Development Influences

Students were asked to estimate the degree to which they perceived various influences to have affected their spiritual maturity. Although self-reported, we believed that student perceptions would themselves offer insights on nurturing spiritual maturity. Students self-reported (on a scale of 5 = "very much" to 1 = "not at all") that the strongest influences in their spiritual maturation were ones which have the opportunity to engage them personally and directly in matters of faith (see Figure 1).

Specifically, students ranked close friends ($x = 3.85$; $sd = 1.13$), personal challenges and difficulties ($x = 3.83$; $sd = 1.05$), and faculty and staff ($x = 3.44$; $sd = 1.04$) as the strongest positive influences on their spiritual development. Moderate influences were: Involvement in a local church ($x = 3.22$; $sd = 1.23$); Bible, ministry, and missions classes ($x = 3.08$; $sd = 1.22$), and; business classes ($x = 2.81$; $sd = 1.05$). The lowest but still positive influences were daily

chapel ($x = 2.77$; $sd = 1.19$), student club and organization involvement ($x = 2.60$; $sd = 1.37$), and arts and sciences courses ($x = 2.35$; $sd = 0.98$).



The influences perceived as strongest—friends, challenges, and faculty/staff—are consistent with evidence and argument elsewhere. Morr (2000) argues how friends play a powerful role in spiritual formation. James and Samuels (1999) found that high (negative) stress is associated with an increase in overall spiritual orientation, and for males, in faith maturation. Pargament (1990) and Barrett (1999) provide a broad theoretical treatment of the interplay between religion and coping. Cannister (1998) found faculty mentoring to enhance freshmen student perceptions of their spiritual well-being. Dykstra (1999) argues for congregational influences in faith maturation.

Although students are exposed to some of these influences in different amounts across their four years (e.g., arts and science course enrollment generally decrease during the last two years; club involvement generally begins the sophomore year; etc.), the only influence which differed significantly across student classifications was “business courses”: From freshman to senior years, business courses became increasingly stronger perceived influences on faith development ($\chi^2 = 25.55$; $\alpha = .012$). This increase in effect may occur because students have more business courses as they move toward their junior and senior years, and thus the potential of courses to be influential increases. Or, it could be that there is increased opportunity in upper level courses to engage faith issues and critical thinking. Still, business courses have only a moderately positive impact on spiritual development as perceived by students ($x = 2.81$).

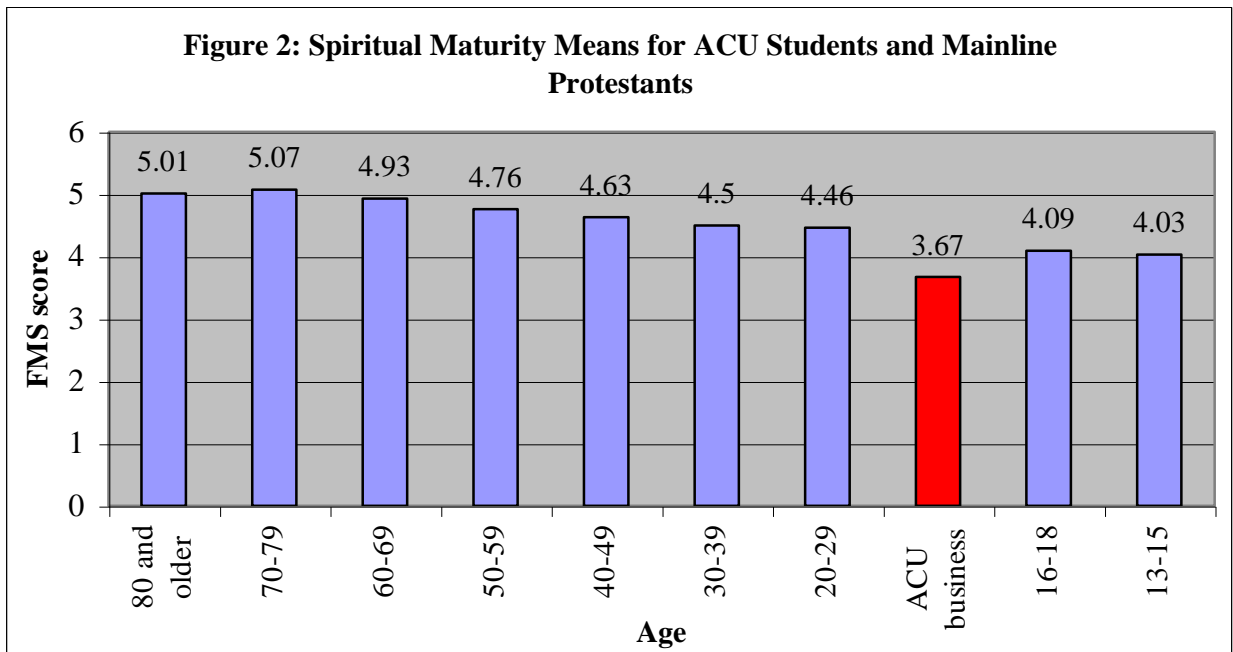
The mean on individual Faith Maturity Scale (FMS) items for undergraduate business students ($n = 192$) is presented in Table 1. All questions were answered on a 5-point scale (5 = “strongly agree”; 1 = “strongly disagree”). The students’ overall mean is 3.67. Disappointingly, this score

Table 1: Mean Scores of Individual Items on the Faith Maturity Scale

<u>Score</u>	<u>Item#</u>	<u>Rank</u>	<u>Item</u>
4.92	2	1	I know that Jesus Christ is the Son of God who died on a cross and rose again
4.53	11	2	Every day I see evidence that God is active in the world
4.47	7	3	My faith helps me know right from wrong
4.45	38	4	I am spiritually moved by the beauty of God's creation
4.37	30	5	My life is committed to Jesus Christ
4.28	24	6	My life is filled with meaning and purpose
4.30	19	7	As I grow older, my understanding of God changes
4.23	3	8	My faith shapes how I think and act every day
4.20	27	9	I am confident that I can overcome any problem or crisis no matter how serious
4.15	23	10	I feel God's presence in my relationships with other people
4.09	17	11	I accept people whose religious beliefs are different from mine
4.00	34	12	I have a real sense that God is guiding me
3.98	36	13	I like to worship and pray with others
3.86	4	14	I help others with their religious questions and struggles
3.81	31	15	I talk with other people about my faith
3.71	29	16	I try to apply my faith to political and social issues
3.67	37	17	I think Christians must be about the business of creating international understanding and harmony
3.65	33	18	I go out of my way to show love to people I meet
3.63	20	19	I feel overwhelmed by all the responsibilities and obligations I have
3.64	15	20	I take time for periods of prayer or meditation
3.64	14	21	I seek out opportunities to help me grow spiritually
3.59	12	22	I take excellent care of my physical health
3.59	25	23	I do not understand how a loving God can allow so much pain and suffering in the world (R)
3.54	10	24	I have a hard time accepting myself (R)
3.52	35	25	I do not want the churches of this nation getting involved in political issues (R)
3.52	6	26	In my free time, I help people who have problems or needs
3.42	1	27	I am concerned that our country is not doing enough to help the poor
3.40	28	28	I care a great deal about reducing poverty in the United States and throughout the world
3.37	32	29	My life is filled with stress and anxiety
3.34	9	30	I devote time to reading and studying the Bible
3.26	8	31	I do things to help protect the environment
3.26	18	32	I feel a deep sense of responsibility for reducing pain and suffering in the world
3.13	21	33	I give significant portions of time and money to help other people
3.03	22	34	I speak out for equality for women and minorities
3.00	13	35	I am active in efforts to promote social justice
2.80	5	36	I tend to be critical of other people (R)
2.69	16	37	I am active in efforts to promote world peace
2.00	26	38	I believe that I must obey God's rules and commandments in order to be saved (R)

(R) = Indicates item is reverse scored.

is lower than the lowest normed score (for youth aged 13-15) measured by the developers of the FMS (see Figure 2), even though the average student age in the present study was 20 years.



Note: Data except ACU business are from Benson et al. (1993).

Faith Maturity

The mean on individual Faith Maturity Scale (FMS) items for undergraduate business students ($n = 192$) is presented in Table 1. All questions were answered on a 5-point scale (5 = “strongly agree”; 1 = “strongly disagree”). The students’ overall mean is 3.67. Disappointingly, this score is lower than the lowest normed score (for youth aged 13-15) measured by the developers of the FMS (see Figure 2), even though the average student age in the present study was 20 years.

Overall, students followed a pattern of spiritual maturation found elsewhere: They increased from freshmen to junior years and then declined during their senior year (Thayer, 2001) (see Figures 3a and 3b). This pattern may suggest that students carried the secure faith of their parents to college, but began questioning and owning a personal faith in their final year of upper-level collegiate studies (cf. Parks, 1991). But, differences among student classification (e.g., freshman, sophomore, etc.) did not correlate significantly with spiritual maturity ($r = .02, \alpha = .79$). Additionally, age correlated significantly but *negatively* with the FMS scores ($r = -.15, \alpha = .04$). This finding runs against the current of other work.

Figure 3a: Spiritual Maturity by Classification

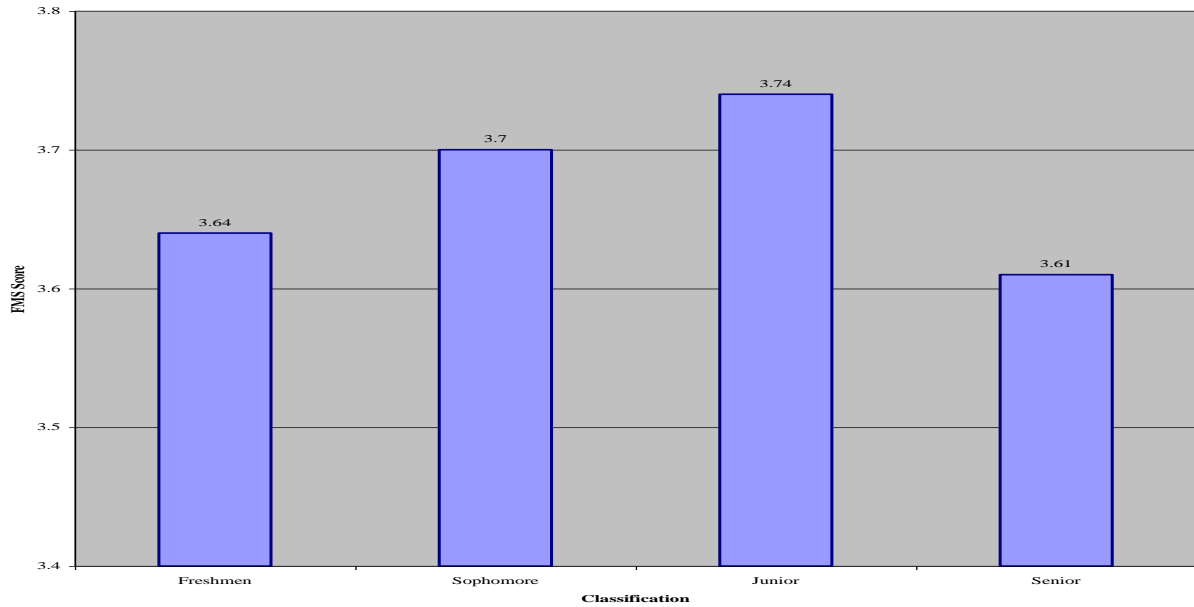
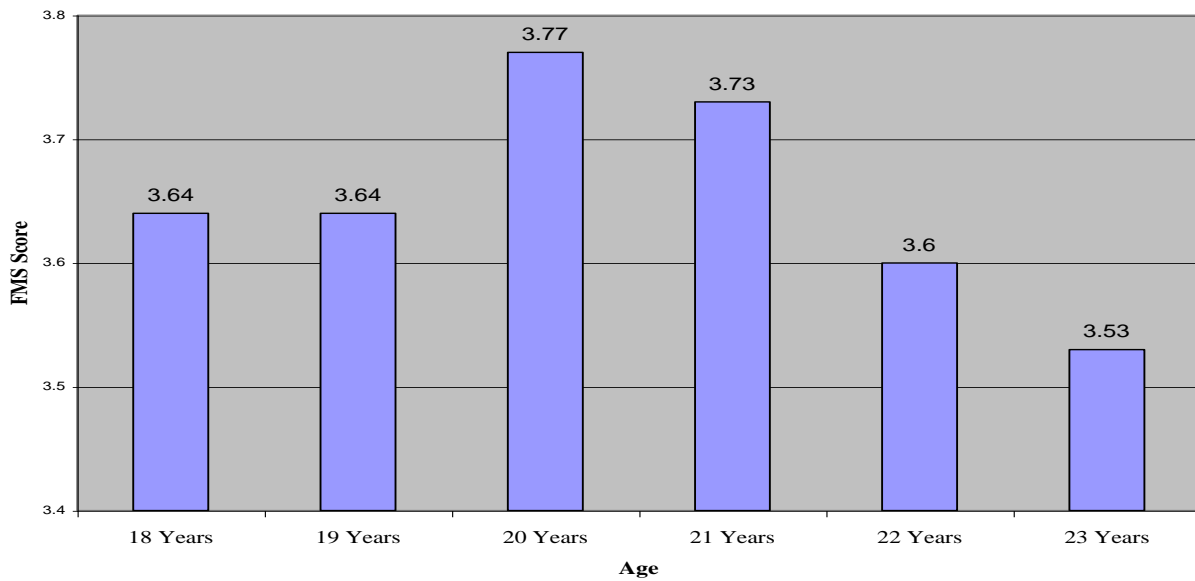


Figure 3b: Spiritual Maturity by Age

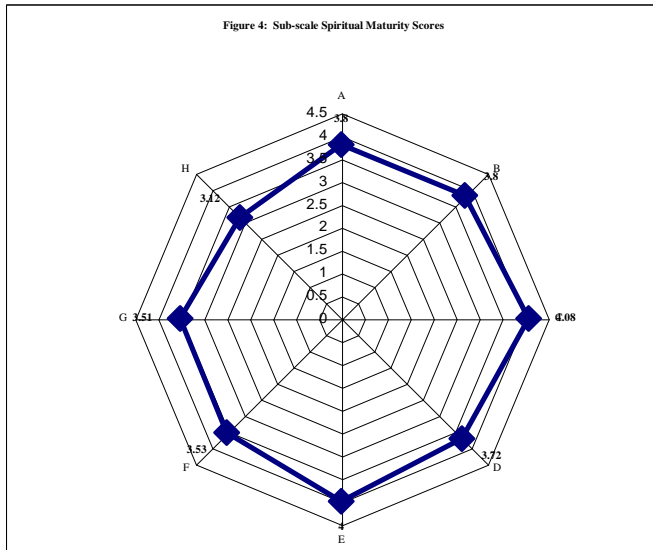


FMS Sub-scales

Benson and his colleagues (1993) developed the Faith Maturity Scale items by asking 410 mainline Protestant adults to describe “whether a person has a deep, vibrant, and mature religious faith.” The researchers then generated a taxonomy of eight core faith dimensions using the descriptions, adding items from social science and theological literature, and then filtering all the statements through three advisory panels. The eight FMS sub-dimensions are (quoted from Benson et al, 1993, p. 6):

- A - Trusts in God’s saving grace and believes firmly in the humanity and divinity of Jesus.
- B - Experiences a sense of personal well-being, security, and peace.
- C - Integrates faith and life, seeing work, family, social relationships, and political choices as part of one’s religious life;
- D - Seeks spiritual growth through study, reflection, prayer, and discussion with others.
- E - Seeks to be part of a community of believers in which people give witness to their faith and support and nourish one another.
- F - Holds life-affirming values, including commitment to racial and gender equality, affirmation of cultural and religious diversity, and a personal sense of responsibility for the welfare of others.
- G - Advocates social and global change to bring about greater social justice.
- H - Serves humanity, consistently and passionately, through acts of love and justice.

The ACU student mean sub-scale scores are presented in Figure 4.³ They score highest in “E - Experiences and nurtures faith in community,” “A - Trusts and believes,” and “B - Experiences the fruit of faith,” and lowest in “AH - Acts and serves.” Once again, no significant differences were identified for any of the eight dimensions when compared across ages or classifications.



- Legend:
- A - Trusts and believes
 - B - Experiences the fruit of faith
 - C - Integrates faith and life
 - D - Seeks spiritual growth
 - E - Experience and nurture faith in community
 - F - Holds life-affirming values
 - G - Advocates social change
 - H - Acts and serves

³The items for each sub-scale are:

- | | | |
|-----------------------|------------------------|---------------------------|
| A - 2, 11, 25, 26, 34 | B - 10, 20, 24, 27, 32 | C - 3, 7, 29, 30, 33 |
| D - 9, 14, 15, 19 | E - 4, 23, 31, 36 | F - 5, 12, 17, 18, 22, 38 |
| G - 1, 28, 35, 37 | H - 6, 8, 13, 16, 21 | |

What Did We Learn about Spiritual Development?

Did We Aim at the Right Target?

First, we must return to the concept of spiritual development before addressing the findings. For those existing in a world of outcome assessment and continuous quality improvement, measuring spiritual development seemed to be a natural and straight-forward task. We discovered along the way, however, a lengthy deep scholarly debate about the theological correctness of developmental psychology and the definition of spiritual maturity. After embracing developmental theories for a decade, many Christian education scholars have argued that “moral development,” or merely “spiritual development” (non-Christian) presents an incomplete conceptualization of the Christian pilgrimage in covenant with God (cf. Drovdahl, 1992; Dykstra, 1981; Ratcliff, 1995; Wanak, 1997; Yeatts, 1992). Although much of the debate addresses Kohlberg’s model of moral maturity, several questions are relevant signposts for the present study:

- ∃ Do spiritual development models provide stages as they occur or as they *should* occur? Are they sociologically descriptive or theologically prescriptive?
- ∃ Where are Christian conversion experiences addressed in development models?
- ∃ Are the work of the Holy Spirit and grace in the Christian disciple’s journey allowed for?
- ∃ Is holistic Christian life addressed, that is: Intellect, emotion, social relationships, behaviors, volition, and ethics?
- ∃ Does spiritual maturation follow predictable stages or rather, plateaus, reversals, leaps, and loops?
- ∃ Is the increasing release of one’s will to God a more accurate reflection of biblical theology than spiritual “maturity” or “development”?

Did We Use the Right Measure?

Because there was no significant difference of FMS scores across student classifications, and a negative correlation of FMS with age, our findings might suggest that students majoring in business do not mature spiritually while they are enrolled at Abilene Christian University. Furthermore, the overall score was quite low compared to respondents of similar age in the Benson et al. (1993) study, signifying that ACU business majors are at a low level of maturity spiritually when they enter and graduate from the university. Since ACU students often express a vibrant commitment to Christ, participate in many faith-focused activities, and score high on the UCLA annual survey of faith measures (CSS, 2001), these results are both puzzling and disappointing. But further thought suggests that there are lessons to be learned about both the method of measuring spiritual growth and the meaning of the results.

One possible explanation is that the Faith Maturity Scale is flawed in its construction. Indeed, some research suggests this. We factor analyzed data from the individual scale items in our study and found 11 factors with an eigenvalue of 1.0 or higher. Together these factors accounted for only 65% of the variance. The factors that were produced didn’t correspond to the scale’s

eight sub-factors used by Benson et al. (1993) to design the scale, nor were the items with large loadings within each factor, grouped in any discernable pattern.

Another explanation, however, is that the sample didn't fit the scale. While also finding problems with the scale's construction, Thayer (1993) and Dudley (1994) found that the FMS did not measure spiritual maturity in Seventh-day Adventist university and younger students because the constellation of doctrinal beliefs held by the population did not match the theology of the FMS. We chose the FMS because it reflected a balanced view of loving God and loving others, but individual scale items may not have communicated these two concepts to the students according to their template of belief. The difference is not due to conservative-liberal but to deeply rooted views in the place of politics and economics in faith.⁴

Significant differences between Catholic and Protestant respondents has been found on some spiritual maturity scales (Bassett et al., 1991). Southern Baptists responded so differently from mainline church members on the original FMS study that the authors excluded Baptists from the analysis (Benson et al., 1991). The students in our sample who claimed mainline denomination membership (e.g., Presbyterian, Lutheran, and Methodist) were too few in number to separate them for analysis and compare them to the more conservative Protestant adherents. A look at the average scores on individual items on the FMS, however, sheds some light on the results, although the interpretation is by nature artistic rather than systematic.

Scale items (see Table 1) that ranked 1st, 5th, and 38th indicate an acceptance of salvation through the grace of Jesus Christ and a desire to live under his lordship. Items ranked 7th, 11th, and 36th suggest a modified Calvinistic high view of God and low view of man to discern truth and understand God's revelation. Several other items (ranked 2nd, 3rd, 4th, 6th, 8th, 9th, 12th) suggest a Wesleyan, pietistic personal application and interpretation of faith. Social justice items were ranked low (25th, 27th, 28th, 31st, 32nd, 34th, 35th, 37th) except for two ranked 16th and 17th, and these may have been interpreted in a personal way rather than organized social action—voting (conservatively probably) and interacting positively with individuals from other countries. Biblical study was (surprisingly) relatively low (30th).

Even if the FMS is not a valid measure overall for an Evangelical sample such as ours, individual items illuminate the faith beliefs and practices of ACU business students. The score on some items seems to fit the historical, intellectual roots of Churches of Christ, such as

⁴In an in-depth study of 42 individuals, Hart (1992, p. 169) concluded: "What the depth-interview respondents tell us...casts grave doubt on the idea that one can disentangle the social implications of faith from other influences by including as truly rooted in faith only certain political views, only those views expressed by particularly 'religious' people, or only those views expressed by people with particular kinds of theological slants. It is clear from the respondents' statements that many different economic stances can be rooted in Christian ideas with a clear descent from undeniably orthodox themes, that these connections can be made by people with an amazing variety of theological perspectives, and that they are found in the thinking of people who vary in the kind of 'commitment' survey researchers typically define."

salvation through Jesus and minimal involvement in social issues. Some reflect more recent trends within the movement, such as a devotional, pietistic dimension of life. And others—such as little Bible study, salvation without works, and a low view of man to discern truth—run counter to restoration movement history (cf. Childers, Foster & Reese, 2000). That Churches of Christ have historically been relatively silent on sanctification additionally may contribute to the lack of movement in FMS scores over time, although the mismatch of the scale and sample obscures a clear measure of this point.

In sum, we believe that the observable indicators of faith commitment, maturity, and action are under-represented by the FMS. While the scale may fit mainline students, it does not provide a measure of conservative students' faith maturity. We cannot tell what maturation occurs over time without a measure better fitted to the sample's theology. The students' insights on influences of their faith and scores on the individual items of the FMS, however, give valuable glimpses of the beliefs of ACU business students.

A Revised Method for Assessing Spiritual Formation

Although faith development studies have been completed at several Council for Christian Colleges and Universities (CCCU) schools, few such studies have not filtered down yet to inform and advance the faith development aspects of business programs within these institutions (a notable exception is Andrews, Bovee, Roller & Walenciak, 2000). Insights gained from this pilot study can help other programs leapfrog portions of the experimentation phase of this assessment. Several specific recommendations may be offered under the rubric of three steps.

Step 1: Deepen your understanding of spiritual formation with biblical theology along with an understanding of your students' faith heritage

You don't have to start from scratch on this—Parks (2000) offers a pertinent discussion, as does Loder (1998). Several models of faith development already exist as well, scattered across the twin axes of theology and the social sciences (e.g., Darling quoted in Ratcliff, 1995; Fleck, Ballard & Reilly, 1975; Fortosis, 2001; Fowler, 1981/1999; LaPierre, 1994; Westerhoff, 1976; Willett, 1997). Nor do you have to try to narrow to a single theoretic model of faith maturation. A better informed sense of faith development in college youth is the goal; an understanding that penetrates surface assumptions and impressions with the rich, thoughtful perspectives of the biblical text and of scholars and thinkers.

Such an understanding is not arrived at easily. It inscrutably intertwines elements a biblical theology of sanctification and pneumatology with human cognitive and social development, the social-psychology of a particular generation and culture, and the intellectual history of a particular Christian tradition. There are even thoughtful considerations that the concept of "growth in faith" is foreign to the biblical text. Huebner (1986, pp. 515, 517) makes this point well:

[Faith is] a clearing in the midst of the busy-ness of life, in the jungle of our doings, concerns and worries. It is not mere emptiness. It is a clearing for God's presence, the Spirit.... Faith is the openness to God, which is itself a gift of God. It does not grow. The clearing for God in our understanding and our human world may be only a tiny clearing, no bigger than a mustard seed. "How do we make it grow?" is not the question. It is more appropriate to ask "Where faith—the clearing in which we acknowledge, seek, and than God—is located in that part of us that is socially constructed?" and "How it can be located in other aspects of our being?"

Add to this general understanding, an image of spirituality within the Christian tradition represented by students at the host institution. After years of thought, no single definition of spirituality can be agreed upon by scholars. Rather, there are unique gems of spirituality, colored and cut by the influences of various Christian traditions and historical and cultural influences (cf. Collins, 2000).

Even if the theology of sanctification is not crystal clear, struggling with the biblical text and the mind and belief students will enrich the process. Regardless of what understanding and models are adopted, grabbing a simplistic model of spiritual maturation is almost guaranteed to produce to a poor understanding and assessment of faith development.

Step 2: Pilot test one or more scales which address your understanding of faith maturity, are robust psychometrically, and communicate the intended meaning to students⁵

Spirituality and religiosity can be defined in many ways. Hill and Hood (1999) review the psychometric quality of over 120 religiosity scales, organizing them into the following categories:

- ∃ Religious beliefs and practices
- ∃ Religious attitudes
- ∃ Religious orientation
- ∃ Religious development
- ∃ Religious commitment and involvement
- ∃ Religious experience
- ∃ Religious/Moral values aor personal characteristics
- ∃ Multidimensional religiousness
- ∃ Religious coping and problem-solving
- ∃ Spirituality and mysticism
- ∃ God concept
- ∃ Religious fundamentalism
- ∃ Views of death/afterlife

⁵Some CCCU institutions administer a scale to all or most matriculating students. If these data are adequate, administering a separate scale may be unnecessary.

- ∃ Divine intervention/Religious attribution
- ∃ Forgiveness
- ∃ Institutional religion
- ∃ Related constructs

Omitted from this list are numerous scales which address ethical reasoning, biblical knowledge, and values, each of which could be appropriate measures for stated institutional outcomes. And new scales are being developed, such as the promising Christian Spiritual Participation Profile and the Discipleship Index (Thayer, 2001) and Regent University's Christian Continuous Improvement Index (<http://www.assess-yourself.org>). RCOPE, a recent scale of religious coping (Pargament, Koenig & Perez, 2000) may be insightful for some college purposes as well. In sum, there are many scales from which to choose.

The Council for Christian Colleges and Universities (CCCCU) sponsored a National Assessment Conference at Lee University in 1998 to compare the success of measuring spiritual maturation at CCCCU institutions. Several member schools reported using various scales to assess institution-wide spirituality (cf. Nonneman, 1998). Drs. Jane Thayer at Andrews University (thayerja@andrews.edu) and Will Slater at Bluffton College (slaterw@bluffton.edu) are currently studying comprehensive research of spiritual maturity instruments used in Christian higher education. Their groundwork on scales—some of which have been used for decades in Christian higher education—will allow schools just getting into assessment to leapfrog mistakes and build on existing knowledge of students' faith maturity.

Scale reliability and validity are important considerations to insure that what is being purported to be measured is indeed being measured (Rudner, 1993). It is wise to remember that construct validity—whether the scale measures its intended target—cannot simply be indicated by a numerical value. In each application, construct validity is measured by how well the scale fits the respondents. Psychometrics are easy to gloss over, but the adage of “garbage in, garbage out” is prophetic. Sophisticated statistical analysis of student outcomes cannot remedy the ills of a scale which defines faith maturity differently than do the respondents.

Beyond the psychometric considerations, is the issue of whether scale items communicate to students at one's institution. As has been discussed, the FMS may meet all of the above qualifications but may not communicate the same meaning to conservative Christians. We suggest carefully reading each item in a scale for clarity of meaning for the Christian traditions represented in the sample.

One final note about scales. Most spiritual development models depict *stages* of development; most scales, on the other hand, depict lesser and greater degrees of continuous variables (Bassett, et al., 1991). Thus, in the past there's been a disconnect between the theory and the scales. Both approaches have arguable value. One's model of faith development may provide clarity in resolving this difference.

Step 3: Design an administration-feedback-action loop which will sustain continuous quality improvement for the business academic unit

Rather than administering a scale once, an institution might consider administering measures on an annual schedule. Since data from surveys such as these energize important institutional changes, it is critical that reported data be as accurate as possible. Thus, administrators may want to consider the survey milieu, including: Avoiding survey fatigue—giving the instrument around the time other scales or surveys are given; insuring that respondents are not rushed; avoiding biasing students in the introduction of the scale, and; avoiding giving the scale at a time of spiritual low or high (e.g., shortly after a spiritual retreat, or at a time in the semester when anxiety is high).

The process also needs to address how many students and at what time of year they complete the survey. We administered ours at the end of the year so students could reflect on the year that had passed. It might have been instructive to have surveys from entering freshmen too. Our intent is to follow up this study with a longitudinal one that will allow us to compare faith maturity for individual students from one time to another rather than across groups of students.

Sizer, Spee, and Bormans (1992) argue that performance measures in higher education can aid in monitoring, evaluation, dialogue, rationalization, and allocation of resources. Thus, “Who is responsible for doing what with the data?” is an important question to clarify so the assessment loop is closed and the process yields continuous improvement in program quality.

Several other steps may be considered as well, including evaluating the undergraduate business curriculum for intentional spiritual formation. Tenelshof (2000) and Coe (2000) report on the implementation of such an approach at the Talbot School of Theology. There are also implications from this line of research suggesting benefits for faculty seeing themselves in a new light, as spiritual mentors (Schroeder, 1993) or coaches (Leyda & Lawson, 2000).

We end with a confession that our understanding of spiritual maturation may be enhanced significantly with assessment, but that we are dependent upon the Holy Spirit as an enabler of spiritual growth.

Future Steps

Payne and Whitfield (1999) describe a process of measuring student outcomes from business programs at state universities in Georgia, and sharing data among the institutions. One idea is for several schools—which emphasize spiritual development and have similar student bodies in terms of Christian belief—to give a common assessment instrument and share data. Raw data could be reported back to each institution, and aggregate data from the all other participating schools could be reported as well. Such a sharing of data might catalyze an avenue for sharing ideas to enhance spiritual maturity.

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