Pilgrims’ Progress: Faculty and University Factors in Graduate Student Integration of Faith and Learning

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PILGRIMS' PROGRESS: FACULTY AND UNIVERSITY FACTORS IN GRADUATE STUDENT INTEGRATION OF FAITH AND PROFESSION

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Graduate students' perspectives on integration of faith and profession were investigated using item response to identify underlying constructs. Students (N = 595) from various professions and four universities were sampled. Three factors were supported as separate and important constructs for students. The first two factors were drawn from Sorenson's research on attachment theory, faculty as bulwark of the faith versus fellow sojourner and faculty as emotionally transparent versus emotionally distant. A new domain of integration, environmental factors such as class Scripture reading, was supported as a unique factor. An examination of diversity variables gave preliminary evidence that females and students of color may see emotional transparency and environmental factors as more important in Christian integration than other students.

Educational researchers have rejected paradigms of graduate students as empty banks to be filled or infants to be taught (Gunzenhauzer & Gerstl-Pepin, 2006) and replaced them with varied paradigms where diverse students actively engage in education with their own values and ways of knowing. These varied identities can enrich each profession and develop new pathways of exploration and development for the professions. In this context, Christian graduate education has a distinct challenge. It was developed as a means for creating a learning environment with simultaneously shared and yet diverse Christian values, beliefs and ways of knowing. Thus, the task of Christian graduate education is to engage students in a dialogue to integrate existing shared aspects of the faith into their training for a profession while simultaneously appreciating each student's uniqueness. To borrow a religious narrative, graduate students are pilgrims who travel through the rite of passage called "the university," with faculty serving as potential mentors in order to facilitate each student's calling.

This rite of passage becomes more complex when one notes that faculty and students may not see integration in the same way. For over thirty years, the integration of faith and learning has been studied from theological and scientific perspectives in the Christian academic community (e.g., Holmes, 1975, 1987). Scholars have articulated a variety of opinions on what exactly such integration entails; however, the perceptions of students have been much less investigated. A substantial difference in student views and faculty opinions on this important topic could considerably impact student satisfaction and retention at Christian universities (Morris, Smith, & Cejda, 2003; Schreiner, 2000). The lack of broad-based research on what students
perceive as equating to meaningful integration therefore is disconcerting.

Paradigms of Learning Christian Integration

Concomitant with the great paradigm shifts in academia in general (Girgus, 1999), various conceptualizations exist among those attempting to integrate the Christian faith and scholarship. Badley (1994) identified several different construct paradigms from the literature for integration. In fusion integration, two elements (for example, an academic discipline and Christianity) mesh into a new element that may or may not retain the individual characteristics of the original elements. Incorporation integration, as the name implies, suggests that one element “disappears into” (p. 24) or is incorporated into the other. Correlation integration observes points of common interest or dispute but does not meaningfully combine anything. Dialogical integration conceptualizes a discipline’s interaction with Christianity along ethical, political, or moral lines. Finally, perspectival integration emphasizes how the Christian worldview impacts the entire educational process, from the academic discipline to the university setting itself and beyond, where “disparate and even conflicting elements cohere as they fit into a larger framework of thought and practice” (p. 25). Admittedly, this last conceptualization is much broader than the former definitions. For the purposes of this research, however, perspectival integration provides the most useful conceptualization because it suggests integration might involve a wide variety of educational aspects, each having potential merit as an avenue of exploration.

On the other hand, construct definitions in the integration literature only become helpful if they are actually applied in the academic setting. University administrations at times promote a particular viewpoint regarding integration, yet what actually happens in the classroom is influenced primarily by the professors’ perspectives and competencies (Ramirez & Brock, 1996). Ream, Beaty, and Lion (2004) performed a qualitative investigation of faculty from four prominent religious research universities to examine their perspectives on how faith and learning are connected. A typology of eight views emerged.

Some faculty considered faith and learning as separate and independent of each other. Others saw faith as relevant to the nonacademic campus environment (extracurricular activities) in order to cultivate a faith-nurtured setting but not as a part of curriculum. In another viewpoint, faith was seen as individual and private rather than a component of the communal and public aspects of the university. Some professors believed that integration essentially focused on reflecting Christian characteristics of honesty, compassion, humility, and care in relation to students and colleagues. For some, faith has a proper place in the curriculum provided it is restricted to a very limited number of classes and is not a component of the rest of the curriculum. Many of these professors expressed the opinion that such limited integration courses should be electives versus required classes. Similar to the “limited classes” perspective, some expressed the belief that integration was pertinent to a few academic disciplines, such as philosophy, theology, and religion, but not to their own disciplines. Other faculty viewed integration in a manner similar to Badley’s (1994) dialogical integration, specifically focused in the areas of moral formation and discipline-related ethics. Finally, some faculty expressed Badley’s (1994) perspectival concept that faith and learning were “inextricably related domains in a Christian university” (p. 365) and that any separation of the two was artificial.

The substantial differences among faculty regarding the place for integration likely impacts students’ experience of learning integration. Christian schools with a significant majority of the faculty teaching from one particular outlook may or may not be meeting the expectations of the diverse students on their campus. Changes in technology, educational paradigms, and research require a renewed assessment of best practices in religious educational institutions. Assessment of student viewpoints is therefore vital.

Students’ Perspectives on Learning Integration

Most of the research on student perspectives on integration has been discipline specific (e.g., Burton & Nwosu, 2003; Lawrence, Burton & Nwosu, 2005), sparse, and lacking in theoretical development. The exception to this atheoretical trend lies in the work of Randall Sorenson with doctoral level clinical psychology students (Sorenson, 1994, 1997; Sorenson, Derflinger, Bufford, McMinn, 2004; Stanton, Sorenson, & Vande Kemp, 1998). Drawing on attachment theory (e.g., Bowlby, 1988; Parkes, Stevenson-Hinde, & Marris, 1993) and contemporary psychoanalysis (e.g., Stolorow & Atwood, 1992), Sorenson hypothesized that the relational
processes between potential mentors and students matter more than a psychology program's integration course content in shaping student perceptions of what constitutes meaningful integration. Graduate psychology training offers students many opportunities for relational attachment to professors. Professors serve as psychological mentors to students, clinical supervisors, the teachers of doctoral courses, and chairpersons for students' dissertations.

Five studies of increasing empirical sophistication have supported Sorenson's views. In the first study, portions of student essays regarding the development of their integration perspective were examined by faculty from that school (Sorenson, 1994). A consistent observation was that most students viewed their therapist as impacting their integration development more than their professors, coursework, or parents. A second study utilizing structural equation modeling with a larger sample replicated this result. Focusing more explicitly on the role of relationships with faculty and integration perspective development, Sorenson (1997) utilized multidimensional scaling with forty-eight clinical psychology doctoral students and found that "evidence of a professor's ongoing process in a personal relationship with God is the single most important dimension that accounts for what students found helpful for their own integration of clinical psychology and faith" (p. 541). The professor's personality characteristics mattered as well. For example, emotional transparency and sense of humor were influential variables. A fourth study replicated this finding with a different graduate clinical psychology population (Staton, Sorenson, & Vande Kemp, 1998). The fifth study applied multidimensional scaling and confirmatory structural equation modeling with a broad student sample from four Christian clinical psychology programs. This study also applied Latent Semantic Analysis to excerpts from interviews with 12 fourth-year doctoral students to further investigate what was meant by "evidence of a professor's ongoing process in a relationship with God." Results supported earlier findings and highlighted that while relational elements were critical in the learning of integration, the specific context and style of relationship that was most helpful varied by student.

Sorenson's research repeatedly found support for two factors as being beneficial in professorial styles of relationship. Each took the form of a continuum. The first was attachment to professors who served as a "bulwark of the faith" (keeping the traditions, being honorable and pious) on one end and those who exemplified the role of "fellow sojourner" (questioning precepts, struggling with experiences, changing perspectives across time) on the other. A second attachment factor related to perceiving the "professor as emotionally transparent." Some students appear to find attachment through an emotionally transparent and interpersonally open faculty member. In contrast, other students find the role boundary between faculty and student important for attachment to take place.

**Literature Review Summary**

As can be seen from the above, numerous definitions of what exactly integration is and how it is accomplished are present among faculty at Christian universities. The investigation of student perceptions of meaningful integration is in its infancy however and has direct implications for faculty efforts to teach students, develop student assignments, and foster an environment that retains students at Christian universities. Faculty and students may be wasting considerable time attempting to integrate in ways that are less fruitful than other methods. Sorenson’s research program has demonstrated that the professor-student relationship is critical in shaping the integration perspective for doctoral-level clinical psychology students at Christian universities. While focusing only on students from one academic discipline, Sorenson’s findings may have applicability to a broader range of disciplines. Exploratory survey research applying a perspectival integration paradigm permits a further investigation of Sorenson’s ideas as well as the identification of other variables that students find important in integration.

**The Current Study**

The current study extends Sorenson’s research in three ways. First, a quantitative item-analysis methodology utilizing factor analysis was used to see if Sorenson’s research can be replicated with this different methodology. Second, the sample consisted of graduate students from various disciplines to determine if the attachment model extends to other professions beyond psychology. Third, an additional factor was added to Sorenson’s two factors, "faculty as sojourner" and "emotional transparency." We believe that the theory’s exclusive focus on attachment to faculty is too narrow and overlooks attachment to environment as a means of learning integration. While
attachment is traditionally defined as a dyadic interpersonal process, we extend that to include attachment or affinity for a place, institution or large group. Students can have strong affinity for their “alma mater” and the collective beliefs, internal culture and ideology of a university or department. A collective identity is formed when students participate in university life; consequently, attachment to the university continues even when individuals have left the institution. We define these environmental factors as university-based spiritual formation practices, and shared faith with peers, faculty and administration.

Research Questions

Are there three factors in accordance with our theory of learning integration? We expect there to be three factors: University environmental attachment, attachment to faculty as sojourners/bulwarks of the faith, and attachment to faculty as emotionally transparent.

What do students see as most important in integrative learning? This question is exploratory to examine what items are rated high or low by students.

What predicts importance of integration? We expect that (a) demographics will not predict how important integration is to students (b) demographics will not predict the three factors, and (c) the three factors (environment, sojourner and emotional transparency) should positively correlate with general importance of integration as a construct validity check.

METHOD

Participant Characteristics

Participants in the study were 595 graduate students drawn from four Christian Universities. Participants consisted of 305 women and 247 men. Median age was between 26-35 years with almost half the participants in the 18-25 age range. Racial composition was as follows: 72.6% identified themselves as Caucasian, 8.7% as African-American, 5.9%, as Asian American, 3% as Hispanic, >1% as Native American, and 1.5% as Other. The majority of students, 88%, were full-time graduate students and 95% identified as primarily on-campus. The largest portion of the participants were law students (n = 223) due to high response rates from several large law classes. Next were counseling and psychology graduate students (n = 152). Trailing behind were communications (n = 28), theology (n = 14), business (n = 11), education (n = 11) and various other degrees in leadership, government or unspecified masters or PhDs. Totals do not add to 595 due to non-response to some items.

Religious affiliation of the students was varied with the highest number identifying as some type of Baptist (n = 152), followed by those that indicated they were non-denominational (n = 132), Evangelical (n = 51), then Catholic (n = 39), Presbyterian (n = 34), Methodist (n = 26), Assembly of God (n = 25), and Pentecostal (n = 24). The remaining identities listed varied with fewer than 10 per group. There were only 2 people who indicated a religion other than Christian: one Hindu and one Mormon. Median church attendance for the sample was weekly with 75% attending church weekly or more than once a week. Eighty percent of the sample indicated that they attend University chapels either “never” or “a few times a year.” Fifty-one percent of the sample attends a small group (Bible study, prayer group, etc.) at least a couple of times a month with only 6% of those attending University organized small groups. The mean score on the religious commitment inventory was 38.05 (SD = 9.28) which is higher than the norm based on public University students (Ripley et al., 2005) which was 23.70 (SD = 11.05). This data on religion of the graduate students indicates that they are highly religiously committed and active, but not in organized religious activities on their campuses.

Procedures

Four universities of Christian higher education with primarily evangelical identities were represented from four regions, two from the east coast (n = 365, 47), one on the west coast (n = 128), and one from the Midwest (n = 30). There was a varied method of data collection due to university constraints with the two east coast university students collected in a random 10% of classes during a week of class. Students from the other two universities were collected through an online data invitation from a faculty member. While the varied method is a methodological limitation, collection from 4 universities allowed the researchers to “see beyond” individual university issues to be able to speak more generally about Christian students in Christian Universities.

Drawing from the three above-described concepts of student integration of faith and learning, the lead researcher developed 30 Likert scale items for
the measure, with responses for level of agreement or level of importance on each. For example, the 5-point Likert scale was anchored with the following: not important, a little important, important, extremely important, and absolutely necessary. The items, their means and standard deviations are found in Table 1. They were then reviewed by the co-authors, two additional experts in Christian integration and a university chaplain and revised based on comments. The items were then distributed to the sample.

RESULTS

Are there three factors in accordance with our theory of learning integration?

A maximum likelihood principal components analysis with varimax rotation was conducted on the items. Initially, a scree plot was examined to determine the number of factors. Eigenvalues of at least one indicated 7 factors. Reproduced correlations found just 6% of residuals greater than .05. However, the scree plot appeared to indicate 3 or 4 factors. A 7-factor model was not tenable with factors containing just one or two items and items crossloading. Following the scree plot and in keeping with the theory of three factors, the items were forced onto a 3-factor model. That model explained 49.64% of the variance. The Kaiser-Meyer-Olkin measure of sampling adequacy was good (KMO = .86). Bartlett’s test of sphericity indicated that the correlation matrix was significantly different than the identity matrix (Bartlett Chi Square (253) = 2532; P < .001). Items were retained if they had component loadings of greater than .40 and differed with other factors at least .20. Of the 30 items, 28 loaded onto 3 factors with two items thrown out. The means, standard deviations and factor loading score for each item are displayed in Table 1.

The environment factor. Factor one consisted of nine retained items and appeared to address the unchanging wisdom and worldviews of faculty, such as faculty with a firm commitment to their faith or faculty who have been in the faith longer than the students. This is in keeping with Sorenson’s (Sorenson, Derflinger, Bufford, & McMinn, 2004) theory regarding students attaching to faculty as unchanging “bulwarks” of the faith. There were no items in this factor that did not meet criteria for assignment to the “bulwark” factor.

The faculty as emotionally transparent/sojourner factor. The third factor consisted of three retained items addressing openness, emotional transparency, and humor and two items that reflect the sojourner perspective. The items clearly fell onto this factor, each addressing issues of faculty in spiritual movement, and open to sharing their journey with their students. The inclusion of two “sojourner” type items may be an artifact of factor analysis, or it may point to some overlap between the sojourner concept and the emotional transparency concept.

Estimates of internal consistency for all three factors were good: Environmental factor Cronbach’s alpha = .83; Bulwark factor Cronbach’s alpha = .84; Openness factor Cronbach’s alpha = .77 (DeVellis, 1991).

What do students see as most important in integrative learning?

Sorenson’s qualitative research found the most common concept endorsed by students was “faculty’s ongoing process of personal relationship with God.” In this current research that concept was turned into an item, which had the second highest score among all the developed items. In examining mean scores there were four items that scored over 4 out of 5 in student’s ratings. Within the bulwark factor three items were high: faculty’s firm commitment to their faith (Mean = 4.27), faculty’s ongoing process of personal relationship with God (4.18), and faculty’s well developed Christian worldview (4.15). In the emotional transparency factor, the question regarding faculty being open to different points of view (4.03) was rated very high. If each factor were treated as a subscale, this sample would have produced the following mean scores: Faculty as bulwark = 4.04, emotional transparency = 3.71, and environment = 3.68. Therefore the bulwark indicators were rated more highly than the other two indicators. Sample mean and standard deviation for each item are presented in Table 1.
**TABLE 1**  
**Items, varimax rotated factor loadings, means and standard deviations for Christian integration measure**

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor</th>
<th>Factor Loading</th>
<th>Mean (standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In considering all the reasons I chose to attend this University,</td>
<td>N/A</td>
<td>N/A</td>
<td>3.83 (117)</td>
</tr>
<tr>
<td>Christian integration is the most important reason I am at my</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important are prayer/devotionals in class b</td>
<td>E</td>
<td>.66</td>
<td>3.57 (104)</td>
</tr>
<tr>
<td>How important are learning appropriate overt or explicit</td>
<td>E</td>
<td>.59</td>
<td>3.74 (101)</td>
</tr>
<tr>
<td>Christian practices/intervention/ techniques relevant to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>my profession b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is a sense of the Holy Spirit’s presence with us</td>
<td>E</td>
<td>.66</td>
<td>3.51 (115)</td>
</tr>
<tr>
<td>as a class b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is the use of the Bible in class and class assignments b</td>
<td>E</td>
<td>.70</td>
<td>3.21 (115)</td>
</tr>
<tr>
<td>How important are University-wide chapels b</td>
<td>E</td>
<td>.66</td>
<td>2.61 (110)</td>
</tr>
<tr>
<td>How important are departmental/Program chapels b</td>
<td>E</td>
<td>.62</td>
<td>2.68 (107)</td>
</tr>
<tr>
<td>How important is training regarding the religious traditions and</td>
<td>E</td>
<td>.56</td>
<td>3.36 (112)</td>
</tr>
<tr>
<td>needs of clients/consumers in my profession b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is participating in research/professional projects</td>
<td>E</td>
<td>.54</td>
<td>3.30 (105)</td>
</tr>
<tr>
<td>that promote a Christian worldview b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is participating in professional organizations</td>
<td>E</td>
<td>.58</td>
<td>3.48 (105)</td>
</tr>
<tr>
<td>to be a Christian witness to the profession b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important are faculty’s firm commitment to Christian beliefs b</td>
<td>B</td>
<td>.77</td>
<td>4.27 (.86)</td>
</tr>
<tr>
<td>How important are faculty’s well developed Christian worldview b</td>
<td>B</td>
<td>.80</td>
<td>4.15 (.87)</td>
</tr>
<tr>
<td>How important are faculty rich in Christian insights and wisdom b</td>
<td>B</td>
<td>.71</td>
<td>3.96 (.88)</td>
</tr>
<tr>
<td>How important are faculty’s evidence of ongoing process in</td>
<td>B</td>
<td>.67</td>
<td>4.18 (.84)</td>
</tr>
<tr>
<td>personal relationship with God b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I learn integration from faculty that are strong in the</td>
<td>B</td>
<td>.68</td>
<td>3.92 (.87)</td>
</tr>
<tr>
<td>unchanging wisdoms of our faith. a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I learn integration from seeing faculty who have practiced their</td>
<td>B</td>
<td>.53</td>
<td>3.89 (.98)</td>
</tr>
<tr>
<td>faith much longer than I have and so can be a role model to me. a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is faculty’s emotional transparency b</td>
<td>T</td>
<td>.49</td>
<td>3.02 (105)</td>
</tr>
<tr>
<td>How important are faculty being open to differing points of view b</td>
<td>T</td>
<td>.86</td>
<td>4.03 (.91)</td>
</tr>
<tr>
<td>How important are faculty being open to new thinking b</td>
<td>T</td>
<td>.83</td>
<td>3.87 (.95)</td>
</tr>
<tr>
<td>How important are faculty’s sense of humor, even about the</td>
<td>T</td>
<td>.64</td>
<td>3.87 (.99)</td>
</tr>
<tr>
<td>things of our faith b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important are faculty’s honest discussion with me in the</td>
<td>T</td>
<td>.56</td>
<td>3.88 (102)</td>
</tr>
<tr>
<td>struggles with their faith. a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is it that faculty tend to change their stance on</td>
<td>T</td>
<td>.53</td>
<td>3.58 (.92)</td>
</tr>
<tr>
<td>spiritual things as they mature and grow in their faith. a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How important is scholarly integration of academic aspects of</td>
<td>X</td>
<td>.52, .49, .50,</td>
<td>3.83 (102)</td>
</tr>
<tr>
<td>classroom theory and theology or Christian/Biblical thought b</td>
<td></td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>How important is classmates that are actively practicing their faith</td>
<td>X</td>
<td>.45, .36, .36,</td>
<td>3.55 (104)</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>-.06</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  
E = Environmental integration factor, B = Faculty as Bulwark of the faith factor, T = Faculty as Emotionally Transparent,  
X = not assigned to factor.
TABLE 2
Summary of Hierarchical Regression Analysis for Factors Predicting Importance of Integration for Students (N=538)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment factor</td>
<td>.06</td>
<td>.01</td>
<td>.34</td>
</tr>
<tr>
<td>Bulwark factor</td>
<td>.06</td>
<td>.02</td>
<td>.19</td>
</tr>
<tr>
<td>Emotional transparency</td>
<td>-.06</td>
<td>.02</td>
<td>-.11</td>
</tr>
<tr>
<td>Religious Commitment Inventory</td>
<td>.01</td>
<td>.01</td>
<td>.09</td>
</tr>
</tbody>
</table>

What predicts importance of integration?

To examine this question a standard regression was conducted with the question "In considering all the reasons I chose to attend this University, Christian integration is the most important reason I am at my University" as the dependent variable. The three factor item total scores were used as three of the predictor variables with the religious commitment inventory (Worthington et al., 2003) as a fourth predictor. Results of the regression indicated that the four factors were able to predict 27% of the variance in the model. The regression ANOVA was significant, \( R^2_{\text{ANOVA}} = 45.46, P < .001 \). Results of the Regression are found in Table 2. The environment factor had the strongest ability to predict importance of integration followed by the bulwark factor. Emotional transparency factor was also a moderate predictor but inversely related. Finally, the religious commitment inventory was moderately low in prediction.

Demographic variables were also examined to determine their ability to predict importance of Christian integration. Using three ANOVAs, gender proved to be a significant variable, \( F(1, 550) = 8.88, p = .003 \), with females (3.94) scoring higher on importance of integration than males (3.65). Age was not a significant predictor, \( F(4, 549) = 1.78, p = .13 \). Ethnicity was also not a significant predictor, \( F(5, 521) = 1.67, p = .14 \).

Does Diversity Matter for Integrative Learning?

In exploratory analyses, diversity variables were examined to see if there were differences in gender and ethnicity (age did not have enough variance to be meaningful) on the three factors. For gender there was a significant difference for environment, \( F(1, 560) = 6.26, p = .01 \) with women scoring higher on importance of items that loaded on the environmental factor (30.00) than men (28.66). There was also a gender difference on emotional transparency, \( F(1, 568) = 45.32, p = .004 \) with women scoring higher on importance of emotional transparency (12.00) than men (11.44). While significant, this may not be a meaningful difference. There was no gender difference for the bulwark factor, \( F(1, 567) = 2.33, p = .13 \). For ethnicity there were too few participants other than Caucasian and African-American, and therefore the data were recoded to all persons of color vs. Caucasians to examine if there were differences with the larger number of participants together. Therefore this is a very blunt measure and evaluation of ethnicity and integration. There was a significant difference in ethnicity for the environment score, \( F(1, 575) = 8.64, p = .003 \). The other two factors were not significant. Caucasians rated the importance of environmental items as less important (28.98) than persons of color (30.77). To break that down in descriptive detail the mean scores for racial identities with number of participants in parentheses were African-American (50) 31.84, Asian American (32) 31.31, Hispanic (17) 30.88, Native American (3) 30.00, and Other (8) 29.87. So in examining descriptive data, it was concluded that persons of color were very similar to one another in rating environmental factors as more important than Caucasian participants. For the faculty attachment as bulwark factor and the emotional transparency factor, there were no differences based on ethnicity.

DISCUSSION

The results of this research provide support for Sorenson's attachment theory of integration with a new group of researchers, a broader set of participants, and an item response theory approach to
the data. These robust results demonstrate that the attachment theory of learning integration should move forward into use as an empirically supported theory of learning Christian integration across multiple disciplines, not just clinical psychology. This research also supported an additional factor of learning integration through environmental attachment.

The investigation of the environment was a unique aspect of this research. This initial query into environmental factors was promising from an item-response theory perspective. While students seemed to rarely mention it in previous open qualitative research, this study identified it as a unique factor with its own variance. Perhaps the environmental factor is not as easily noticed as professorial factors as it is analogous to the “water” the fish swim in. Students also varied in their ratings of the environmental factor’s importance. Further less obvious factors also may exist, such as peer factors.

Students in non-psychology majors have different interpersonal contexts for learning integration. One of the past research findings was that students in clinical psychology programs were attaching most deeply to their therapist as the person from whom they learned integration (Sorenson, 1997). However, many psychology programs have moved away from the model of training. Since the students in this study were not referring to their psychotherapist, we believe some of the differences between this research and past research is due to reference to faculty in more traditional faculty roles. However, Sorenson’s attachment theory holds up well across disciplines in this study and current results do not appear to be due to the unique aspects of psychology training.

Previous research has found a gender difference in how faculty integrate and are perceived as attachment objects for learning integration (Patelis & Sorenson, 1997). In the current study, women placed a slightly higher value on environmental factors than men and rated Christian integration as somewhat more important in general compared to men. In particular in the Patelis and Sorenson study, female faculty tended to rate emotional transparency-related factors as more central to their style of integration. Female students echo that finding in this study but also rate environment differently than do men. These findings need specific theoretically based research before conclusions are made, but the importance of gender has now been established in two studies on learning integration.

Another avenue of research that should be studied is the experiences of diverse groups of students in learning integration. This research found empirically significant differences, particularly for environmental items, for students of color. It may be hypothesized that many of these students have fewer faculty mentors serving as attachment figures who are similar to themselves in universities and therefore they seek Christian environments as a common bond or identity causing environmental factors to increase in importance (Johnson & Huwe 2003; Neal-Barnett, Mitchell, & Boeltar, 2002). Given that ethnic influence is difficult to accomplish in a group or system (Moscovici & Doise, 1994), such viewpoints in learning Christian integration may be overlooked and appear to be “noise” in a dataset when there are actually important overlooked factors left unaccounted for. These preliminary results need further theoretically-based research to determine their meaning. Qualitative research may be particularly useful in generating the unique meanings different factors hold for these students.

One difference between the Sorensen line of research and this study is that emotional transparency, sojourning, and sense of humor held out as unique factors in Sorenson’s research but factored together in the current study. This may be an artifact of quantitative methodology in the current study, whereas qualitative methods used by Sorenson seek distinct factors. It may also be due to the differences in the sample with non-social science majors. However, the continued utility of faculty’s emotional transparency, sojourning and sense of humor as separate attachment-related professor-based factors should be further studied since the results are inconsistent.

In addition, at least two possible lines of research exist for examining the integration of profession and Christianity. The experiential attachment theory line of research would now be considered well developed and should further investigate aspects of attachment, such as attachment events and pedagogical practices that can foster professor-student attachments in learning integration. The conceptual integration theory needs further development since it has not been as well investigated. The companion research by Hall, Ripley, Garzon and Mangis (2009) uses qualitative methodology to find support for both the experiential attachment theory of learning integration and a conceptual integration theory. We propose these two pathways do overlap, as one cannot occur without the other.
Conclusion

Continued high interest in Christian education creates a research frontier regarding the learning of integration itself. Affectively-laden bonds between faculty and students are a key to effective training in Christian integration. The environmental context of these bonds likewise appears important. The current study also extends into the role of diversity in student integration learning based on gender and ethnicity. Such influences were consistent for students in various majors and at several different institutions, suggesting further opportunities for additional exploration in various professions. Taken together, Sorenson’s theory, the addition of environmental attachment as an important variable for pilgrim students, and multicultural variables will likely inspire researchers to create more robust paradigm-based research programs in the future. Clearly, there is more to the story of integration learning, which we hope future research will discover.

References


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