Incorporating Spirituality in the Classroom:
Effects on Teaching Quality Perception

Matthew A. Hiatt, Claflin University, USA

https://orcid.org/0000-0001-7311-711X

Jeffrey S. Reber, University of West Georgia, USA

Alan L. Wilkins, Brigham Young University, USA

Jillian Ferrell, Utah State University, USA

ABSTRACT

This study tested the extent to which professors could be trained to help enhance students' experiences of spirituality in their classes. Three areas of focus that may be important to incorporating spirituality into the classroom were identified in the integration of faith and learning literature: 1) professor self-disclosure, 2) intellectual connections, and 3) interpersonal connections. In a quasi-experimental design, two professors were trained to incorporate these focus areas into four experimental conditions. A sample of 203 student participants attended different teaching conditions and rated their perception of the teaching quality. Statistical tests revealed that professor ratings on general teaching skills and spirituality greatly improved after training; however, ratings also depended on the professor. Results indicated that applying such a pedagogical training can be a useful tool in educating faculty to successfully incorporate spirituality in the classroom and improve student perceptions of their general teaching skills.

KEYWORDS

Higher Education, Integration of Faith and Learning, Intellectual Connections, Interpersonal Connections, Pedagogy, Relationality, Self-Disclosure, Student Learning, Teacher Training

INTRODUCTION

Studies show that a large majority of students have an interest in spirituality and feel that they should be able to express it in college (Astin et al., 2011; Jacobsen & Jacobsen, 2012; Lindholm et al., 2005). Many faculty recognize this and value their personal spirituality (Astin et al., 2011; Edwards, 2008; Lindholm et al., 2005); however, they have several concerns about what role, if any, spirituality should play in their courses (Wilkins & Birch, 2011). Some faculty wonder how to start incorporating spirituality into their teaching; others believe they are unable to find time to do it. Some express concern that bringing up spirituality might jeopardize academic rigor by reducing critical thinking and lowering performance expectations. Perhaps one of the greatest concerns is that spirituality may not fit with a particular discipline. These anecdotal concerns (Wilkins & Birch, 2011) are backed by Edwards (2008) who says that even in some religiously affiliated institutions "faculty rarely mention [their] personal religious or spiritual convictions in [their] scholarship or teaching" (p. 81).

Behind these concerns is an overriding question: How does the introduction of spirituality into the classroom impact the quality of teaching and learning? The present study takes up this question in the following initial ways. First, this study identifies three main aspects of spirituality in the integration of faith and learning literature that are relevant to the college classroom. These aspects are not intended to provide an exhaustive coverage of spirituality, but they offer a useful starting point for professors who may not have a firm grasp of this concept as it relates to the classroom. Second, this study introduces a training protocol that can be followed to help faculty begin incorporating spirituality into their teaching. Third, this study empirically tests the effects of this training on student perceptions. This study makes a unique contribution over the survey, interview, and anecdotal studies done thus far because it is the only study that uses a quasi-experimental design to examine this specific topic.

In the literature review that follows, the authors explain the background needed to understand this study's purpose. Because this study was conducted at a Christian university, focus was narrowed mostly to literature on Christian spirituality. Notably, though, many scholars suggest that spirituality can be incorporated at any college—religiously affiliated or not (e.g., Jacobsen & Jacobsen, 2012).

BACKGROUND

Integration of Faith and Learning (IFL)

The last four decades have seen increasing research attention to IFL in higher education. IFL is an interaction between professors and students (Cooper, 1999) where both seek to make connections between faith and academic disciplines (Hasker, 1992).

In studying IFL, scholars at Brigham Young University (Wilkins & Birch, 2011; A. Wilkins, personal communication with the first author, February 6, 2014) used both student and faculty surveys and focus groups to look at what role faith could play in learning and what students consider important in both their courses and their professors for a spiritually strengthening experience. From this research, the authors identified three main areas of focus that are important to incorporating spirituality into learning and which are used as a foundation in addressing faculty concerns:

1. A focus on the professor's journey, personal experiences, and the ways in which spirituality is working in his or her personal and professional life. (Professor Self-Disclosure)
2. A focus on intellectual connections between spirituality and the discipline and illuminating the meaning that those connections have in students' lives. (Intellectual Connections)
3. A focus on the professor's relationship with students. (Interpersonal Connections)

Although the authors review each of these focuses separately, it is important to bear in mind that they are dynamic parts of a whole and, despite having different emphases, they share a great deal of conceptual and practical overlap.

Professor Self-Disclosure

One of the primary aspects of IFL relates to the first focus, which the authors have labeled "Professor Self-Disclosure". In a Christian context, this focus is marked by professors letting students know through content-relevant self-disclosures that they have a personal relationship with God. Using a sample of students from seven schools affiliated with different Christian denominations, Sherr et al. (2007) found that a professor's personal relationship with God is one of the most important contributors to IFL. They also found that students appreciate it when professors share personal experiences of God in which they refer to or draw on spiritual knowledge to make decisions. One example of this could be where a professor tells the class that one reason why they chose to study in that field was due to a spiritual experience they had.

Intellectual Connections

In IFL, many professors connect their personal experiences—including spiritual ones—to key concepts and topics of their discipline. According to Hasker (1992), when IFL is put into practice, professors do not have to create connections between faith and knowledge, but simply look for the relationships that naturally exist between the two. Professors can then spotlight the inherent connections between their faith and their discipline in the classroom (Sherr et al., 2007). Hasker (1992) also describes IFL as a practice that involves scholarly thinking that is already saturated by religious attitudes and beliefs. For professors, this means recognizing that their faith informs their professional and personal lives in ways that relate to their discipline. To illustrate this, imagine a class having a discussion on social comparisons. The professor connects it to the Pharisees in the Bible who, looking down at the sinners, felt better about their own righteousness. A dialogue about the spiritual and personal impacts of social comparison ensues.

Interpersonal Connections

The third focus, "Interpersonal Connections"—a relational aspect of spirituality—may be the facet that matters most. In defining IFL, Cooper (1999) placed the main emphasis on an open relationship between professors and students. Sorenson (1997) conjectured that the relationship between students and their faculty mentors matters more than the actual content involved in IFL. Professors serve as mentors to students; they play a critical role in student development (Sorenson, 1997). Relationships that form in and continue outside of the classroom have the greatest impact on students (Wilson et al., 1975). Indeed, Cooper (1999) stated that the "interaction between students and faculty members seems to lay the foundation for the integrative process" (p. 386).

Prior studies found that students highly desire interaction with faculty, yet studies have shown that interaction between professors and students in college classrooms can be infrequent and insincere (Feldman & Newcomb, 1969; NSSE, 2006). Wilson et al. (1975) suggested that to increase the interaction between professors and students, professors should be more accessible (see also Frymier, 2013; Witt et al., 2006). However, accessibility is more than just being physically available (Cooper, 1999); it could also mean being spiritually available—being ready to listen to students' faith-promoting, spiritual experiences or questions. One of the authors tries to demonstrate Interpersonal Connections by collecting "Getting to Know You" sheets at the beginning of each semester. He uses this to learn students' names and connect with them on deeper levels throughout the semester.

While the literature on IFL provides support for the three areas of focus, it lacks empirical studies on its impact on student outcomes. The current study aims to demonstrate the extent to which training on how to incorporate the areas of focus into a classroom lecture can improve students' perceptions of teaching quality, including spirituality. Indeed, research suggests that one reason faculty are less interested in spirituality is that they lack education, or training, in addressing the topic (Speck, 2005).

Hypotheses

The quasi-experiment for this study was designed to assess the extent to which professors from different disciplines could be trained to effectively implement teaching that incorporates each of the three focuses identified. The researchers had three hypotheses in this study:

H1: Teaching that incorporates the focus areas (separately and combined) will produce higher ratings of teaching quality than teaching that does not incorporate the focus areas.
H2: The combined incorporation of all three focus areas in the same teaching session will result in an even greater improvement of perceived teaching quality compared to the incorporation of each focus area separately.
H3: When the focuses are incorporated separately, Interpersonal Connections will have a significantly greater effect on perceived teaching quality than each of the other two focus areas.

METHOD

The study was approved by the Institutional Review Board of the private Christian university in the Western United States where all participants were recruited and data collection took place.

Participants

Professors

The selection criteria for the professors were that they must: 1) hold continuing faculty status (roughly equivalent to tenure), 2) have a record of average student ratings on university-administered surveys, and 3) teach a course that has content a variety of students can easily understand. These selection criteria were used because the authors wanted participants who were more available and less concerned about student ratings (as is typical in tenured professors) and who had potential to improve their teaching (as indicated by average student ratings). After obtaining a pool of qualified professors from the university, the authors emailed everyone an invitation to have a conversation about faith and learning. After interviewing willing candidates, the authors selected two professors based on who would be an appropriate fit for this study. Fit was measured by whether they met the established criteria for participation as well as their availability and willingness to participate. Both participants were married, Caucasian men. Professor 1 was 38 years old, had a Doctor of Philosophy degree, and worked in the College of Fine Arts and Communications. Professor 2 was 42 years old, had a Juris Doctor degree, and worked in the College of Life Sciences. The demographics of the participants were representative of the typical tenured professor at the university. The authors chose to use faculty from different disciplines to help counter the argument some faculty make that spiritual teaching does not fit with the subject matter of their discipline. Only two professors were selected due to limitations in resources, including available student participants.

Students

A convenience sample of 203 undergraduate students consisted of 97 males (48.7%) and 101 females (50.8%); five students did not specify their gender. The average age was 21.5 years ($SD = 4.60$). Other demographic data are listed in Table 1. Forty-one percent of the student participants ($n = 83$) selected a teaching session randomly assigned to Professor 1; 59% of student participants ($n = 120$) selected a teaching session randomly assigned to Professor 2.

Materials

Reading Excerpts

Each professor provided relevant reading excerpts on topics of their choice from an area of their own expertise that could easily be taught to students from different majors. Professor 1 provided a reading excerpt from the Linear Kinematics chapter of an exercise science textbook. Professor 2 provided a reading excerpt from his own writing on the First Amendment.

Teacher Rating Questionnaire

The Teacher Rating Questionnaire (see Appendix A) measures teaching quality through students' perceptions of their experience and the professor's capabilities. It is composed of 59 Likert-type items (adapted from three sources: Feldman & Prohaska, 1979; Ratemyprofessors.com; Silva et al., 2008) on three nine-point subscales. Additional questions were also generated and validated (via pilot study) to measure the use of the three areas of focus. Reliability tests on three factors of this questionnaire—as determined by a factor analysis—indicate good reliability: Cronbach's $\alpha = .97$ (General Teaching Skills), .94 (Spirituality), and .89 (Openness and Respect).

Procedure

Procedure for Students

At the start of each study condition session, the students were given 20 minutes to read the provided excerpt. They then participated in a 30-minute lecture relating to the reading material. After the professor taught and left the room, the participants rated him using the Teacher Rating Questionnaire. Students were unaware of their assigned professor and teaching condition.

Procedure for Professors

A baseline teaching condition was established before the professors went through a pedagogical training session. In this condition each professor taught a group of students for 30 minutes. In order to reduce the chance of incorporating the three focuses into their teaching, professors were instructed to treat the control condition as if they were giving a lecture as part of a job interview at a state university.

One week after teaching in the control condition, each professor separately attended a 60-minute training session where three of the researchers taught them how to incorporate the three areas of focus into their teaching. Specifically, they were trained to teach in four experimental conditions—one class session for the incorporation of each of the areas of focus separately and one for the three focuses simultaneously. The researchers followed a written training protocol to ensure the training was both consistent and tailored to the professors' teaching materials.

Before the training session, the professors received a training handout (see Appendix B) designed to help them think of ways in which they could: 1) share personal experiences or stories related to the material that would reveal something important about their values, weaknesses, and/or spiritual commitments; 2) make spiritual connections to particular topics in the material; and 3) show the students that they care about them and about learning the material. These three aspects correspond to the areas of focus—1) Professor Self-Disclosure, 2) Intellectual Connections, and 3) Interpersonal Connections— and were used to help the professors integrate faith and learning.

To begin the training session, the professors watched a faith and learning video created by the university. They then planned specific ways they could incorporate their handout ideas (IFL ideas) into the four different experimental conditions. The key focus of the training was to discuss the principles of each focus area and then have the professors apply the principles to their teaching style and material in a genuine manner.

Beginning one week after the training, each professor taught four groups of students from various majors over a two-week period—covering four experimental conditions—for 30 minutes each. The order of single-focus teaching conditions was counterbalanced between the two professors to correct for any practice effects.

RESULTS

Manipulation Check

A manipulation check was performed by analyzing each teaching session to ensure that professors taught according to the conditions' specifications. Table 2 indicates the percent of time each professor spent in each condition on each focus area. Both professors naturally incorporated Professor Self-Disclosure and Interpersonal Connections in the control condition. As expected, the professors' natural, baseline ways of teaching carried through each experimental condition to some extent. This is especially the case for Professor 1. The pattern demonstrated in the table shows that the manipulation was effective overall. The findings also reveal that Professor 2 incorporated the training much more successfully than Professor 1: he spent more time emphasizing the focuses within and across all four experimental conditions, and he did so more cleanly.

Data Reduction

All data were screened and analyzed using Stata 14. The researchers analyzed the Teacher Rating Questionnaire using Exploratory Factor Analysis to determine what aspects of teaching qualities to use as dependent variables. A total of nine items were eliminated from analysis because they failed to meet a minimum criterion of having a primary loading factor of .4 or above or cross-loaded at .4 or above. A factor analysis using a promax rotation was conducted with the remaining 50 items. Due to the nature of the items that loaded onto each factor, the first factor (33 items) was labeled "General Teaching Skills", the second factor (11 items) was labeled "Openness and Respect", and the third factor (six items) was labeled "Spirituality". The factors explained 69%, 12%, and 8% of the variance, respectively.

Composite scores ranging from one to nine were created for each of the three factors based on the mean of the items in each factor. Higher scores indicated higher ratings on each factor. The average rating was 5.80 ($SD = 1.51$) for General Teaching Skills, 7.29 ($SD = 1.16$) for Openness and Respect, and 5.91 ($SD = 2.07$) for Spirituality.

Significance Tests

Basic descriptive data for each group are listed in Table 3. This table gives a snapshot of the ratings across the three factors for each professor and condition. It also displays the rating scores for the experimental conditions as they differ from the control condition within each professor.

The researchers ran a 5 (condition) X 2 (professor) multivariate analysis of variance (MANOVA) with the three factors from the factor analysis as dependent variables to compare evaluations of professor quality both between conditions and between professors. This assessed the extent to which incorporating the areas of focus improved upon students' perceptions of teaching quality. The main effect for condition was significant, $F(4, 193) = 18.11$, $p < .0001$, partial $\eta^2 = .270$. The main effect for professor was also significant, $F(1, 193) = 33.07$, $p < .0001$, partial $\eta^2 = .342$. There was also a significant interaction between the two independent variables, $F(4, 193) = 4.12$, $p < .0001$, partial $\eta^2 = .079$, indicating that the effect of condition on perceptions of teaching quality depends on the professor. Two-way ANOVA follow-ups for each factor revealed significant differences between both condition and professor for General Teaching Skills and Spirituality but not for Openness and Respect.

General Teaching Skills

On the General Teaching Skills variable the main effect for condition was significant, $F(4, 193) = 6.51$, $p < .001$, partial $\eta^2 = .119$, indicating a medium to large effect. The main effect for professor was also significant, $F(1, 193) = 36.30$, $p < .0001$, partial $\eta^2 = .158$, a large effect. In this case, Professor 1 had significantly higher ratings on General Teaching Skills than Professor 2. There was a significant interaction between the two independent variables, $F(4, 193) = 5.91$, $p < .001$, partial $\eta^2 = .109$, a medium to large effect.

Figure 1 graphically displays the evaluation ratings across professors and conditions on General Teaching Skills. Post hoc tests—namely, Tukey's honest significant difference (HSD) pairwise comparisons—indicated that there were a few significant differences for this variable. Average professor evaluations for the Interpersonal Connections ($M = 6.76$) and combined conditions ($M = 6.02$) were significantly higher than the control condition ($M = 5.14$), lending partial support for H1 which says that there will be higher ratings on perceived teaching quality in the experimental conditions than the control condition. The average evaluations for the Interpersonal Connections condition were also significantly higher than the Professor Self-Disclosure ($M = 5.54$) and Intellectual Connections ($M = 5.82$) conditions, lending some support for H3 which says that there will be higher ratings on teaching quality in the Interpersonal Connections condition compared to the other two conditions. No support for H2 was found.

Tukey's HSD tests further indicated that the mean scores for evaluations of Professor 1's General Teaching Skills in the control, Professor Self-Disclosure, and Intellectual Connections conditions were significantly higher than the mean scores for Professor 2 in those conditions. Since Professor 2 was rated lower than Professor 1 in the control condition, the researchers did follow-up analyses comparing the relative change in teaching quality ratings from the control to experimental conditions within each professor. Table 3 displays these differences. The analyses showed that Professor 1 had significantly more positive change in the Professor Self-Disclosure condition, but significantly less change in the Interpersonal Connections and combined conditions compared to Professor 2.

Spirituality

The main effect for condition on the Spirituality variable was significant, $F(4, 193) = 48.58, p < .0001$, partial $\eta^2 = .502$, indicating a very large effect. The main effect for professor was also significant, $F(1, 193) = 9.79, p = .002$, partial $\eta^2 = .048$, a small to medium effect. In this case, Professor 2 had significantly higher ratings on Spirituality than Professor 1. There was a significant interaction between the two independent variables, $F(4, 193) = 2.94, p = .022$, partial $\eta^2 = .057$, a small to medium effect.

Figure 2 graphically displays the ratings across professors and conditions on Spirituality. For this variable, Tukey's HSD tests indicated that the mean scores for evaluations for all the experimental conditions ($M = 6.89, 6.55, 5.63, 6.78$, respectively), were significantly higher than the control condition ($M = 2.94$), offering strong support for H1. In addition, the Interpersonal Connections condition ($M = 5.63$) significantly differed from the other three experimental conditions, having the opposite effect than what was predicted in H3. At least across conditions, no support for H2 with the Spirituality quality was found.

Tukey's HSD tests indicated that on Spirituality the mean score for evaluations for Professor 2 in the combined condition ($M = 7.38$) was significantly higher than the mean score for Professor 1 ($M = 5.57$). Additionally, post hoc analyses comparing the relative change in Spirituality ratings from the control to experimental conditions within each professor showed that Professor 2 had significantly more positive change in the Intellectual Connections and combined conditions compared to Professor 1.

DISCUSSION

A couple of important findings emerged from the results. First, independent ratings indicate that the professors effectively incorporated the three areas of focus into their teaching, with even minimal incorporation paying notable dividends. Additionally, incorporating the three areas of focus led to a positive increase in students' perception of the teaching quality.

Effective Training

One of the most practical findings is that the professors' training was successfully incorporated into their teaching. The findings displayed in Table 2 are particularly relevant on this matter and warrant careful attention. For both professors in this study, there was a significant increase in time spent emphasizing the focus areas from the control condition to the experimental conditions. There was, however, a difference between the professors' emphasis on the focuses. In this study, Professor 2 fared much better than Professor 1 at spending time incorporating the proper focus in each condition. One reason for this could be that the professors may have had different comfort levels with the focus areas.

Teaching Quality Improvement

In the present study, the professors' incorporation of the training improved students' perceptions of their teaching skills and spirituality. For General Teaching Skills, professors received significantly higher ratings in the Interpersonal Connections and combined conditions, with Interpersonal Connections having the largest effect. For Spirituality, professors received significantly higher ratings in all the experimental conditions, with Interpersonal Connections having the smallest effect. This is interesting

because this is opposite from what the researchers predicted. One possible explanation for this finding is that students are less likely to see the teachers' instruction as spiritual when it focuses on the relationship because spirituality is not explicitly discussed as much within this focus area. This is especially likely at religious institutions where there may be a tendency to think of spirituality as related to the use of religious terms and explicit intellectual connections.

One reason why the training had no effect on the Openness and Respect variable could be that the professors were naturally adept at demonstrating those qualities that made up that factor. The baseline ratings for Openness and Respect were already very high (indicating a ceiling effect), so there was little room for significant improvement. Of note, however, is that the means (see Table 3) show that both professors improved from the control condition to the experimental conditions on this factor (except for Professor 2 in the Professor Self-Disclosure condition), even though the differences are not statistically significant. Future studies may find that professors who have low ratings on the Openness and Respect factor could benefit from the training.

The results also indicate that professors differed significantly from one another on the General Teaching Skills and Spirituality qualities. Professor 1 had higher absolute ratings on General Teaching Skills than Professor 2 in the Professor Self-Disclosure and Intellectual Connections conditions. This is not surprising given that he already had higher ratings on this variable in the control condition. This could be an indication that he may be more naturally adept at those skills than Professor 2. Alternatively, perhaps Professor 2 was more able to modulate his behavior to teach as though he were at a state university and then to change as instructed in the experimental conditions. One reason why Professor 1's ratings on General Teaching Skills in the Interpersonal Connections and combined conditions did not significantly differ from the control condition could be that Professor 1 made only minor changes in incorporating spirituality, unlike Professor 2 who was observed to make major changes. Professor 2 also had higher ratings on Spirituality than Professor 1. This, too, is not surprising given how much Professor 2 integrated the focuses into the experimental conditions and how slight Professor 1's changes were. From these findings, it is important to highlight that even when Professor 1 incorporated IFL minimally, there still was an effect on perceived teaching quality.

This key finding may help to bridge the gap between student and faculty expectations around faith and learning. It suggests that even a slight increase in time spent on the spiritual emphases—for example, a slight increase in disclosures about their personal spirituality—may help ease the mind of professors who have expressed concerns around integrating spirituality into their teaching as they can still reap great rewards on perceived teaching quality.

While there were significant differences in these teaching qualities across both professors and conditions, significant interactions indicate that student ratings of their professors depend on the teaching condition. This highlights how professors may excel in one focus area and struggle in others. This also could be an indication of the challenges of incorporating spirituality into classes with different disciplinary material. However, despite very different disciplines, both professors were able to increase the amount of class time spent on the focuses in such a way that increased student perceptions of General Teaching Skills and Spirituality. These findings speak to the concern faculty have about spirituality and the fit with their discipline. Future research could investigate which other disciplines produce similar results when incorporating spirituality.

Limitations and Suggestions for Future Research

The present study is the first quasi-experiment to compare different ways of spiritual teaching empirically and, as such, it has several limitations. First, the method of students self-selecting class times meant that the conditions were not truly randomly assigned and resulted in unequal group sizes. As a result, it is possible that there were systematic differences between students in varying conditions. Where possible, future research should randomly assign participants to conditions to avoid this issue.

There can be many reasons for why the professors in this study incorporated the training with varying degrees of success. One possibility is that the nature of the discipline or topic made it more or

less difficult to incorporate the training. This may have influenced the treatment fidelity. As expected, the professors' baseline time spent on the focuses seemed to have carried through each condition. Since a control condition reveals natural teaching tendencies, it helps explain how the focuses may have "leaked" into the experimental conditions. This makes treatment fidelity a concern because it is difficult to know how much of the change from the control to the experimental conditions is due to natural tendencies. Notably, though, this specific finding is mainly applicable to Professor 1 because Professor 2's control condition percentages are almost non-existent. This challenge of fidelity clouds the ability to be fully confident that a particular area of focus had a specific effect. By improving the treatment fidelity there may be increased power to detect effects. Understandably, treatment fidelity is difficult when dealing with a live teaching session that involves participation from the students (Reber et al., 2017). It is also difficult to maintain when one is dealing with aspects of spirituality that are interrelated, as evidenced by the literature. Although the professors were trained to teach the focus of each condition, some variation across conditions was unavoidable. Thus, like Reber et al. (2017) note in a similar study, this was a study of teaching emphasis, not teaching purity.

Among the concerns that faculty have about addressing spirituality in the classroom is that it might jeopardize academic rigor (Wilkins & Birch, 2011). Since student perceptions are not objective measures, future research could examine cognitive learning outcomes (see Allen et al., 2006). However, the results of this study strongly suggest the possibility that teachers do not have to sacrifice the rigor of their teaching or their coverage of discipline-specific material in order to integrate even a modicum of spirituality into their teaching.

While this study was conducted at a Christian university, the authors wonder how a training that emphasizes spirituality can be adapted at other universities—religious or secular. Jacobsen and Jacobsen (2012) have noted that spirituality can be incorporated at any university, but it will likely look different. Would the findings observed in this study hold up? What effects might spirituality in the classroom have on students who are not spiritual/religious or who practice a religion that is different from the professor? These questions need to be explored.

CONCLUSION

The current study is like many of the studies that Witt et al. (2006) analyzed: an experimental design and "time-bound snapshot" (p. 160) that limits the ability to look at outcomes over time. Seeing that an hour-long training elicited improvement on General Teaching Skills and Spirituality in a 30-minute lecture, it would be interesting to test what effect a similar training has in an actual classroom setting over a whole semester. Considering that the goal is not simply academic improvement in a single course nor successful completion of a program of study, but may also be about becoming more spiritually strengthened, incorporation of spirituality in a course and across an entire curriculum may have positive and meaningful long-term consequences. In a longitudinal study, what kind of outcomes would one see? Would the training still be effective? Can professors effectively incorporate the focuses throughout the semester?

In planning a training that involves incorporating spirituality, researchers and administrators must first consider the specific religious affiliation (if any), mission, values, and goals of the institution. They must also consider the personal values of the individual faculty and students. But more importantly, as Astin et al. (2011) advocate,

how students define their spirituality or what *particular meaning they make of their lives is not at issue. Rather, [the] concern is that the relative amount of attention that colleges and universities devote to the "inner" and "outer" aspects of our students' lives has gotten way out of balance.* (p. 2, underline added, italics in original)

A major part of the "inner" aspect of students' lives is their spirituality.

REFERENCES

Allen, M., Witt, P. L., & Wheeless, L. R. (2006). The role of teacher immediacy as a motivational factor in student learning: Using meta-analysis to test a causal model. *Communication Education*, *55*(1), 21–31. doi:10.1080/03634520500343368

Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011). *Cultivating the spirit: How college can enhance students' inner lives*. Jossey-Bass.

Cooper, M. V. (1999). Faculty perspectives on the integration of faith and academic discipline in Southern Baptist higher education. *Religious Education (Chicago, Ill.)*, *94*(4), 380–395. doi:10.1080/0034408990940402

Edwards, M. U. Jr. (2008). Why faculty find it difficult to talk about religion. In D. Jacobsen & R. H. Jacobsen (Eds.), *The American university in a postsecular age* (pp. 81–97). Oxford University Press.

Feldman, K. A., & Newcomb, T. M. (1969). *The impact of college on students*. Jossey-Bass.

Feldman, R., & Prohaska, T. (1979). The student as Pygmalion: Effect of student expectation on the teacher. *Journal of Educational Psychology*, *71*(4), 485–493. doi:10.1037/0022-0663.71.4.485

Frymier, A. B. (2013). Teacher immediacy. In J. Hattie, E. M. Anderman, J. Hattie, E. M. Anderman (Eds.), International guide to student achievement (pp. 425-427). Routledge/Taylor & Francis Group.

Hasker, W. (1992). Faith-learning integration: An overview. *Christian Scholar's Review*, *21*, 234–248. https://www.apu.edu/live_data/files/219/faith_learning_integration_an_ overview.pdf

Jacobsen, R. H., & Jacobsen, D. (2012). *No longer invisible: Religion in university education*. Oxford University Press. doi:10.1093/acprof:oso/9780199844739.001.0001

Lindholm, J. A., Astin, H. S., & Astin, A. W. (2005). *Spirituality and the professoriate: A national study of faculty beliefs, attitudes, and behaviors*. Higher Education Research Institute, UCLA.

NSSE. (2006). *Engaged learning: Fostering success for all students.* Annual Report of the National Survey of Student Engagement. University of Indiana. http://nsse.iub.edu/NSSE_2006_Annual_Report/docs/NSSE_2006_ Annual_Report.pdf

Reber, J. S., Downs, S. D., & Peterson-Nelson, J. A. (2017). Effects of three pedagogies on learning outcomes in a Psychology of Gender lecture: A quasi-experimental study. *Teaching of Psychology*, *44*(2), 134–144. doi:10.1177/0098628317692617

Sherr, M., Huff, G., & Curran, M. (2007). Student perceptions of salient indicators of integration of faith and learning (IFL): The Christian vocation model. *Journal of Research on Christian Education*, *16*(1), 15–33. doi:10.1080/10656210701381080

Silva, K. M., Silva, F. J., Quinn, M. A., Draper, J. N., Cover, K. R., & Munoff, A. A. (2008). Rate my professor: Online evaluations of psychology instructors. *Teaching of Psychology*, *35*(2), 71–80. doi:10.1177/009862830803500202

Speck, B. W. (2005). What is spirituality? *New Directions for Teaching and Learning*, *2005*(104), 3–13. doi:10.1002/tl.207

Sorenson, R. (1997). Doctoral student's integration of psychology and Christianity: Perspectives via attachment theory and multidimensional scaling. *Journal for the Scientific Study of Religion*, *36*(4), 530–548. doi:10.2307/1387688

Wilkins, A. L., & Birch, A. J. (2011). *Spiritually strengthening and intellectually enlarging faculty: What students want.* http://faithandlearning.weebly.com

Wilson, R. C., Bavry, J. L., Gaff, J. G., Wood, L., & Dienst, E. R. (1975). *College professors and their impact on students*. Wiley.

Witt, P. L., Wheeless, L. R., & Allen, M. (2006). The relationship between teacher immediacy and student learning: A meta-analysis. In B. M. Gayle, R. W. Preiss, N. Burrell, & M. Allen (Eds.), *Classroom communication and instructional processes: Advances through meta-analysis* (pp. 149–168). Lawrence Erlbaum Associates Publishers.

APPENDIX A. TEACHER RATING QUESTIONNAIRE

Part A: Disagree (1 to 3) Agree (4 to 6) Strongly Agree (7 to 9)

1. This teacher seemed to be helpful.
2. This teacher presented the material in an unclear way.
3. It would be difficult to succeed in a class if it were taught by this teacher.
4. Overall, this is a quality teacher.
5. This lesson was difficult to understand.
6. This lesson was interesting.
7. The lesson materials and activities were effective.
8. This teacher was competent.
9. This teacher was intelligent.
10. I did not like the way this teacher taught.
11. I would recommend this teacher to a friend.
12. This teacher was well organized.
13. This teacher was enthusiastic.
14. This teacher had a poor knowledge of the topic.
15. This teacher did a good job stimulating students' interest.
16. If this teacher were to teach a class, I would sign up to take a class from them next semester.
17. This teacher was spiritually inspiring.
18. This teacher has an ongoing personal relationship with God.
19. This teacher integrated the gospel into the subject.
20. This teacher developed a good working relationship with the students.
21. If I had this teacher for a class, I could develop good rapport with him/her.
22. I would feel uncomfortable approaching this teacher for help.
23. This teacher was open to questions.
24. This teacher allowed us to connect with each other.
25. If I had this teacher for a class, I could get closer to the other students.
26. This teacher has interest in student learning.
27. This teacher gave opportunities for us to get help.
28. This teacher responded to students respectfully.
29. This teacher explained concepts effectively.
30. This teacher promoted active student involvement.
31. My testimony was strengthened because of this teacher.
32. My intellectual skills were developed because of this teacher.
33. This teacher contributed to the aims of the university (Spiritually Strengthening, Intellectually Enlarging, Character Building, Lifelong Learning and Service).

Part B: Disagree (1 to 3) Agree (4 to 6) Strongly Agree (7 to 9)

34. Approachable/Personable (Smiles, greets students, invites questions, responds respectfully to student comments)
35. Authoritative (Maintains classroom order)
36. Confident (Speaks clearly, makes eye contact, and answers questions correctly)
37. Creative and Interesting (Uses interesting, relevant, and personal examples; not monotone)

38. Effective Communicator (Speaks clearly/loudly; uses precise English; gives clear, compelling examples)
39. Enthusiastic About Teaching and About Topic (Smiles during class, prepares interesting class activities, uses gestures and expressions of emotion to emphasize important points)
40. Flexible/Open-Minded (Pays attention to students when they state their opinions, accepts criticism from others)
41. Good Listener (Doesn't interrupt students while they are talking, maintains eye contact, and asks questions about points that students are making)
42. Happy/Positive Attitude/Humorous (Tells jokes and funny stories, laughs with students)
43. Humble (Admits mistakes, never brags, and doesn't take credit for others' successes)
44. Knowledgeable About Subject Matter (Easily answers students' questions, does not read straight from the book or notes, and uses clear and understandable examples)
45. Prepared
46. Presents Current Information (Relates topic to current, real-life situations; talks about current topics)
47. Promotes Class Discussion (Asks controversial or challenging questions during class, and involves students in group activities during class)
48. Promotes Critical Thinking/Intellectually Stimulating (Asks thoughtful questions during class)
49. Punctuality/Manages Class Time (Presents relevant materials in class, leaves time for questions)
50. Rapport (Makes class laugh through jokes and funny stories, initiates and maintains class discussions)
51. Respectful (Does not humiliate or embarrass students in class, is polite to students [says thank you and please, etc.], does not interrupt students while they are talking, and does not talk down to students)
52. Sensitive and Persistent (Makes sure students understand material before moving to new material, repeats information when necessary, and asks questions to check student understanding)
53. Understanding (Doesn't lose temper at students, takes extra time to discuss difficult concepts)
54. Spiritual (It is clear he/she has a testimony, demonstrates an ongoing relationship with God)
55. Spiritually intellectual (Cares about connections between the gospel and the material, shows the relevance of such connections)
56. Interpersonal (Demonstrates concern for students, develops a working relationship with students, helps students relate to each other)
57. Genuinely Cares for Learning (Interested in students' learning, willing to help students work though difficult problems related to the subject matter even outside of class)

Part C: Poor (1 to 3) Good (4 to 6) Excellent (7 to 9)

58. How would you rate the overall lesson?
59. How would you rate the teacher overall?

APPENDIX B. SAMPLE TRAINING HANDOUT

1) Creating a community of learning

What can you do to show the students that you care about them and about learning this material?

2) Topic 1

What spiritual connections would help students to see the importance of this concept?

Think of a personal example or story that would show how you have experienced this concept and that would reveal something important about your values, your weaknesses, and/or your spiritual commitments.

APPENDIX C. TABLES AND FIGURES

Table 1. *Student demographic comparisons by quasi-experimental condition and professor*

	Professor 1					Professor 2				
Condition	White	Female	Freshman	Sophomore	Junior	White	Female	Freshman	Sophomore	Junior
Control	88.2%	47.1%	17.6%	17.6%	41.2%	100%	55.6%	44.4%	22.2%	11.1%
Self-Disclosure	100%	25%	8.3%	33.3%	41.7%	85.7%	60.7%	32.1%	25.0%	17.9%
Intellectual Connections	92.9%	3.6%	32.1%	17.9%	21.4%	77.7%	48.1%	29.6%	29.6%	14.8%
Interpersonal Connections	100%	25.0%	25.0%	37.5%	25.0%	88.9%	50.0%	38.9%	16.7%	16.7%
Combined	3.3%	40.0%	13.3%	26.7%	20.0%	85.7%	64.3%	42.9%	21.4%	10.7%

Table 2. *A comparison of the time spent in each condition incorporating the three focuses*

Area of Focus by Condition	Professor 1			Professor 2			Percentage Difference
	Time (seconds)	% of time		Time (seconds)	% of time		
Control	1915			1775			
Professor Self-Disclosure	132	6.89		18	1.01		5.88*
Intellectual Connections	0	0.00$_a$		0	0.00$_b$		0.00
Interpersonal Connections	171	8.93		37	2.08$_c$		6.85*
Total focuses	303	15.82		55	3.10		12.72*
Overlap time	0	0.00		0	0.00		0.00
Experimental 1	1797			1822			
Professor Self-Disclosure	**322**	**17.92**		**1213**	**66.58**		**48.66***
Intellectual Connections	35	1.95		88	4.83		2.88*
Interpersonal Connections	331	18.42		49	2.69$_c$		15.73*
Total focuses	628	34.95		1332	73.11		38.16*
Overlap time	60	3.34		18	0.99		2.35
Experimental 2	1776			1801			
Professor Self-Disclosure	61	3.43		551	30.59		27.16*
Intellectual Connections	**322**	**18.13**		**1108**	**61.52**		**43.39***
Interpersonal Connections	217	12.22		141	7.83		4.39*
Total focuses	557	31.36		1426	79.18		47.82*
Overlap time	43	2.42		374	20.77		18.35*
Experimental 3	777			1817			
Professor Self-Disclosure	281	15.81		601	33.08		17.27*
Intellectual Connections	0	0.00$_a$		0	0.00$_b$		0.00
Interpersonal Connections	**539**	**30.33**		**723**	**39.79**		**9.46***
Total focuses	798	44.91		1312	72.21		27.30*
Overlap time	22	1.24		12	0.66		0.58
Experimental 4	1912			1871			
Professor Self-Disclosure	**192**	**10.04**		**615**	**32.87**		**22.83***
Intellectual Connections	**112**	**5.86**		**651**	**34.79**		**28.93***
Interpersonal Connections	**251**	**13.13**		**496**	**26.51**		**13.38***
Total focuses	514	26.88		1630	87.12		60.24*
Overlap time	41	2.14		132	7.06		4.92*

Note. The proper focuses for each condition are in boldface for convenience. "Overlap time" indicates the time the professor spent incorporating more than one focus at a time. "Total focuses" is calculated by adding up the time the professor spent on each focus and subtracting the overlap time. Percentages sharing a common subscript denote no statistical difference between the control and experimental conditions at $\alpha = .001$ according to a difference between proportions test; all other percentages are significant.

*$p < .001$.

Table 3. *Basic descriptive statistics and difference scores for evaluation data across the three extracted factors*

Condition		Professor 1				Professor 2		
	n	**GTS**	**OR**	**S**	*n*	**GTS**	**OR**	**S**
Control	19	5.86[a] (1.44)[b]	6.99 (1.46)	3.12 (1.18)	18	4.38 (1.21)	7.09 (1.13)	2.75 (1.30)
Professor Self-Disclosure	12	7.49 (0.87) **1.63[c]***	8.09 (0.95) **1.10***	6.56 (1.09) **3.44**	28	4.71 (1.26) **0.33**	6.96 (1.08) **-0.13**	7.04 (1.36) **4.29**
Intellectual Connections	29	6.40 (1.42) **0.54**	7.40 (1.17) **0.41**	6.20 (1.63) **3.08**	27	5.18 (1.22) **0.80**	7.20 (1.19) **0.11**	6.93 (1.28) **4.18***
Interpersonal Connections	8	6.67 (1.30) **0.81**	7.35 (0.86) **0.36**	5.15 (1.91) **2.03**	17	6.81 (1.10) **2.43***	7.91 (0.95) **0.82**	5.86 (1.63) **3.11**
Combined	15	6.30 (1.25) **0.44**	7.35 (0.96) **0.36**	5.57 (1.69) **2.45**	30	5.87 (1.22) **1.49***	7.17 (1.15) **0.08**	7.38 (1.23) **4.63***

Note. Difference scores are in boldface. The asterisks (*) indicate significant differences in difference scores between professors as determined by Tukey's HSD tests. GTS = General Teaching Skills. OR = Openness and Respect. S = Spirituality.

[a]Mean.[b]SD. [c]Mean difference from the control condition

p < .05

Figure 1. Average student evaluation ratings on the General Teaching Skills variable across professors and conditions. Error bars represent standard errors. Points are offset horizontally so that error bars are visible. Recall that the order of the first three experimental conditions were randomized; therefore, this is does not reflect chronological order.
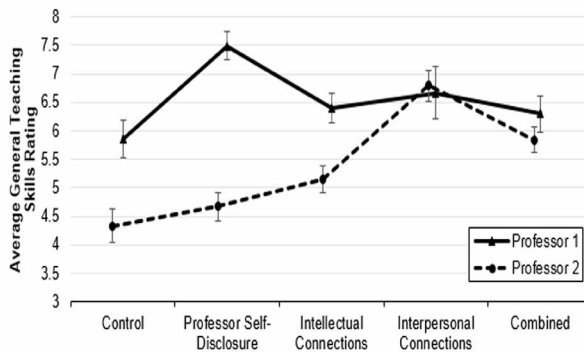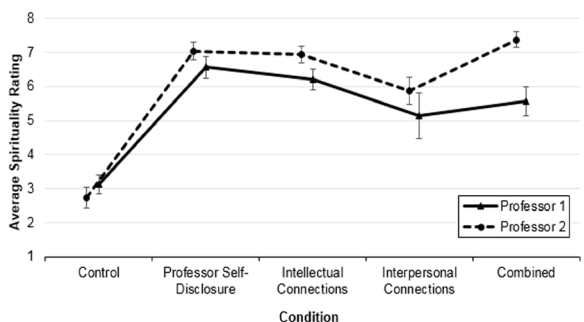

Figure 2. Average student evaluation ratings on the Spirituality variable across professors and conditions. Error bars represent standard errors. Points are offset horizontally so that error bars are visible. Recall that the order of the first three experimental conditions were randomized; therefore, this is does not reflect chronological order.

Matthew A. Hiatt is an Assistant Professor of Psychology at Claflin University where he serves as the Psychology Program Coordinator. He received his PhD in Applied Social Psychology from Brigham Young University in Provo, UT in 2016. He earned a BS in Psychology from Brigham Young University-Idaho in 2010. He has research interests in social psychology in the classroom, relational teaching, higher education, group/team dynamics, and spirituality. He teaches a variety of courses in psychology with emphasis on social psychology, research methods, and statistics.

Jeffrey S. Reber is associate professor and chair of the department of psychology at University of West Georgia. His PhD is in general psychology with a dual emphasis in theoretical/philosophical psychology and applied social psychology. His research and teaching philosophies are informed by a relational approach to psychology that promotes critical thinking about the relationship between assumptions, implications, and alternative perspectives as they impact human sociality and consciousness. He is editor-in-chief of Issues in Religion and Psychotherapy, associate editor of the Journal of Theoretical and Philosophical Psychology, and he sits on the editorial boards of four academic peer-review publication outlets. Dr. Reber served as the president of the Society for Theoretical and Philosophical Psychology (Division 24 of the APA) in 2014.

Alan Lee Wilkins received bachelor's and master's degrees from BYU and a doctorate in Organizational Behavior from Stanford University in 1979. He served as Department Chair of Organizational Behavior, as Associate Academic Vice President for Faculty, and as Academic Vice President at BYU. He was serving as Director of the Faculty Center at BYU prior to his recent retirement. His scholarship, which has been published in several of the top scholarly journals in his field, focuses on understanding organizations as cultural entities and helping them to improve. He has also published research on religious research universities.

Jill Ferrell is a sixth-year PhD student at Utah State University in the Combined Clinical/Counseling/School Psychology program. She has worked as a psychology department instructor, graduate student therapist at Utah State University Counseling and Psychological Services, and as an instructor, learning specialist, and consultant for USU's Academic Success Center. She has research interests in identity, spirituality, and human and animal bonds and animal-assisted interventions. Jill particularly enjoys qualitative research methods that allow for deeper exploration of intersectionality, lived experience, and relationships between individuals and their contexts and gives voice to marginalized or unheard individuals and groups. After internship, Jill hopes to continue to work in the university setting in multiple roles as a therapist, researcher, and course instructor.