

Faith-Learning Integration: Making the Student the Locus Through an Interdisciplinary Research Approach

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ABSTRACT: We explore the challenges students encounter when integrating Christian faith and learning within the business classroom. We also propose strategies to address these challenges and foster effective faith-learning integration. Students may find it challenging when given the task of reconciling the Christian faith with business concepts. We suggest that these challenges stem from the broader difficulties students face in interdisciplinary work. To overcome these barriers, we propose a framework that distinguishes between the processes of assimilation and accommodation in interdisciplinary learning. Additionally, we offer a practical pedagogy designed to support both teachers and students in achieving meaningful faith-learning integration within the classroom. We find evidence that the proposed framework helps students' perceptions of ability and confidence to start and engage in faith-learning integration research.

KEYWORDS: faith-learning integration, interdisciplinary work, assimilation and accommodation, locus of integration, pedagogy

INTRODUCTION

Faith-learning integration is a concept about which much has been written, yet determining a precise definition is not an easy task. Frank Gaebelein, one of the first to coin the term, called faith-learning integration “a living union between Christianity and education” (Gaebelein, 1956, p. x). Roso et al. (2022) and Hasker (1992) bring further clarity at the university level by defining faith-learning integration as the development of integral relationships between the Christian faith and the various academic disciplines, where both the Christian faith and the disciplines are knowledge traditions in and of themselves. The terms “union,” “integral relationships,” and “disciplines as knowledge traditions” factor greatly in our understanding of faith-learning integration and are most pertinent to our study. This understanding has informed our thinking about the interdisciplinary nature of

faith-learning integration work as well as our application of a model of assimilation and accommodation to the task of integration itself.

The authors work closely together at a Christian university, where one is a business professor and the other a business librarian. Each quarter, when co-teaching research workshops in business classes, we observe that many students seem overwhelmed when tasked with integrating Christian faith with business concepts. An assignment prompt such as “What might be a Christian view on the topic of profit?” is challenging in any case, but it becomes even more challenging for students who may be uncertain in their own faith or who do not adhere to a Christian worldview. Faith-learning integration is a complex endeavor that requires critical thinking and the ability to synthesize knowledge from multiple disciplines, each with its own body of intricate content (Holmes, 2000). This knowledge, and our desire to make

this task of faith-learning integration more approachable for our students, has resulted in this study.

To guide this inquiry, we propose the following research question: What challenges do students encounter in faith-learning integration, and how can faculty effectively address these challenges using principles of interdisciplinarity, assimilation, and accommodation?

In the following section, we review the literature on the challenges of faith-learning integration, followed by a discussion of how faith-learning integration can be considered interdisciplinary. We then examine the barriers of interdisciplinary research in the context of faith-learning integration, proposing a pedagogical framework to guide students through the process of interdisciplinary research. Finally, we describe our application of an assimilation/ accommodation model of cognitive development as it applies to faith-learning integration.

LITERATURE REVIEW

Challenges of Faith-Learning Integration

The literature of faith-learning integration demonstrates that its importance is well recognized particularly in the context of liberal arts education at faith-based institutions (Hasker, 1992; Holmes, 2000). However, instructors and students may not always be prepared or equipped to engage in faith-learning integration (Rasmussen & Rasmussen, 2005). Particularly within a liberal arts context, a student must first absorb the foundational knowledge of their discipline before considering how to integrate faith with it (Holmes, 2000). Additionally, instructors and students often possess varying levels of biblical literacy and hermeneutical skills (Alleman et al., 2016). Moreover, students may have compartmentalized their faith from their academic pursuits (Reader & Pacino, 2013). Potential differences in epistemological perspectives between students and their instructors must also be taken into account—differences noted by McMahon et al. (2015) in an examination of millennials and more recently in a study of the iGeneration (Smith & LaShaw, 2021). In the latter study, Smith and LaShaw reveal a difference in spiritual and classroom perspectives found in the iGeneration, reporting that 60% of young adults say that God and religion are not important in their lives. The iGeneration is noted to be the first generation raised entirely with smartphones and tablets and is characterized as “anxious, agnostic, and technology obsessed” (p. 117).

While much attention in the literature has been given to faculty as the primary agents of integration (Kim, 2020), less focus has been placed on the role of students in this pro-

cess. Studies often find that students perceive faith-learning integration as a faculty-led process, thus relegating themselves to a passive or reactive role at best (Bailey, 2012). A more recent study by Roso (2018) encourages bringing the student to the fore, with the author’s recommendation that “Christian faculty put more focus on the student aspect of faith-learning integration through developing assignments and assessments ... with student change as the goal” (p. 19). This recommendation is seconded by Mun and Bermejo (2023) in their examination of how students perceive changes in their faith-learning integration over the course of a university semester.

Badley (2009) also considers both faculty-centered and student-centered integration endeavors and expands on these by naming two additional locations where faith-learning integration may occur. Badley proposes a locus of integration framework that defines four loci: the curriculum, the teacher, the scholarly research, and the student. These four loci are distinct, and while our study touches on each one, we focus primarily on the loci of the scholarly research and the student. This is an important distinction because focusing primarily on the faculty’s role in faith-learning integration risks overlooking the diversity in students’ learning abilities, faith backgrounds, and understandings of the integration process. Moreover, neglecting the student’s role can hinder faculty from developing pedagogies that would support students in engaging with faith-learning integration and enabling them to pursue it with confidence.

By re-centering the student as a central focus of faith-learning integration, the value of exploring the challenges students face when integrating faith and learning is underscored, thus motivating the development of strategies to help overcome these challenges. In the following section, we provide a brief definition of interdisciplinary work and outline our approach to conceptualizing faith-learning integration as a form of interdisciplinary scholarship.

Definition and Description of Interdisciplinary Work

Klein (1990) offers a succinct definition of interdisciplinary research that spans the humanities, social sciences, and natural sciences, stating, “Interdisciplinarity is a means of solving problems and answering questions that cannot be satisfactorily addressed using single methods or approaches” (p. 196). Klein provides valuable insights into the relationship between interdisciplinary work and integration, which has led us to explore this connection in the context of faith-learning integration. Given that faith-learning integration often involves comparing, contrasting, making connections, and synthesizing information from multiple disciplines, it is logical to draw parallels between faith-learning integration

and interdisciplinary work. This has proven relevant in the business context at our Christian university, where students are frequently asked to incorporate a Christian perspective with their research on business topics.

Faith-Learning Integration as Interdisciplinary Work and its Challenges for Students

Our roles as a professor and a librarian have influenced our conception of faith-learning integration as a form of interdisciplinary research, with the disciplines of business and Christianity being the two disciplines at play. Roso et al. (2022) and Hasker (1992) both describe faith-learning integration as the intersection of two fields of knowledge, Christian faith and the academic disciplines, bringing further emphasis to the interdisciplinary nature of faith-learning integration. Eckel (2015) and Reeder and Pacino (2013) have highlighted the fact that faith-learning integration is particularly challenging due to its interdisciplinary nature, which confirms our view that the difficulties associated with faith-learning integration stem from the barriers encountered in interdisciplinary work. Thus, an examination of the challenges of interdisciplinary research offers insights into the obstacles students face in faith-learning integration and can help identify strategies for facilitating more productive experiences. Using this approach, students can achieve integration by developing the skills to search for information across multiple disciplines, a critical step in the interdisciplinary research process.

While studying the experiences of students as they do interdisciplinary research, Savard (2018) found that they encounter common barriers, including information overload, unfamiliar disciplines, new terminology, and limited access to broader sources. Examining these barriers within the context of faith-learning integration can offer valuable insights into the difficulties our students encounter. Our study seeks to identify these specific challenges in the overall integration process and propose strategies to address them. By doing so, we aim to contribute to the scholarship of faith-learning integration by providing practical recommendations that empower students to actively engage in the integration process and to take ownership of their own faith-learning integration journey.

In the following section, we introduce two frameworks of integration that may assist students in navigating these challenges. First, we elaborate on Badley's (2009) locus of integration framework, which emphasizes the intrinsic motivation behind faith-learning integration—the *where* of integration. Next, we consider Lattuca's (2001) assimilation/ accommodation model of interdisciplinary integration, which outlines two distinct levels of integration and

provides a process-oriented approach for students—the *how* of integration.

PROPOSITIONS FOR FAITH-LEARNING INTEGRATION

Steps Toward Student-Centered Faith-Learning Integration

Badley's (2009) locus of integration framework, which names the four loci of faith-learning integration as the curriculum, the teacher, the scholarly research, and the student, suggests that the approach to integration should vary depending on the specific problem being addressed ((as cited in Bailey, 2012). As such, Badley's framework can help identify where integration might best occur, based on the type, stage, and level of integration involved. We argue that while faculty develop and teach the curriculum, they cannot perform the integration on behalf of the students. Specifically, when a student acquires the skills for interdisciplinary research, the locus of integration shifts from the more common loci of instructor and curriculum to the more necessary loci of the scholarly research and student. In other words, it is in the student's research, drawing on knowledge from multiple disciplines, that integration begins, and ultimately, it is in the locus of the student where integration can and should take place.

For a practical approach to integration, we draw on Lattuca's (2001) assimilation/ accommodation model of interdisciplinary integration, which is in turn built on Piaget's (1970) theory of cognitive development. Lattuca states:

When a new conception is introduced into an existing conceptual ecology, it can be incorporated either by *assimilation* or by *accommodation*.... Assimilation involves new learning that does not require individuals to make major adjustments in existing cognitive frameworks. In contrast ... [accommodation] is a more radical way of incorporating new conceptions, requiring an individual to alter deeply held commitments. (p. 166)

In other words, assimilation involves the integration of new information into an individual's existing (yet underdeveloped) understanding of a subject, whereas accommodation occurs when new ideas challenge well-established conceptions, prompting a deeper process of reorganization in which core beliefs are modified or reshaped (Lattuca, 2001). To grasp examples of assimilation and accommodation found in everyday life, a review article by Hanfstingl et al. (2018) reveals that two decades' worth of assimilation/accommodation studies have brought out instances, such as adapting to a new culture, learning a new language, adjusting to trauma, pursuing and attaining goals, and developing skills.

We contend that assimilation represents a foundational process that can be introduced to students as they begin their interdisciplinary research process. Importantly, if the locus of integration is focused on the student, assimilation may serve as a more accessible entry point for all students. We argue that as students begin their process of faith-learning integration at the assimilation stage, this becomes the initial step in a gradual progression. We then support this argument through a description of pedagogical methods including an in-class activity and an analysis of survey results regarding students' perceptions of faith-learning integration during the activity. We conclude with suggestions for future research.

Based on these considerations, we present the following propositions. First, we propose that clarifying the distinction between assimilation and accommodation will be beneficial when evaluating the outcomes of students' faith-learning integration assignments. Second, with an emphasis on the student as the locus of integration, we suggest that students begin by applying the more simplified process of assimilation to interdisciplinary research. This serves as the initial step in a progression that can ultimately lead to accommodation. In this way, we aim to support students in developing the skills and confidence needed to engage in faith-learning integration while also deepening their understanding of Christian faith. In the next section, we present a practical application of faith-learning integration at the assimilation stage, framed within the pedagogical approach outlined in our propositions.

Practical Application of Faith-Learning Integration Through the Search for Information

Our propositions can be effectively implemented by having students begin the faith-learning integration process through information search and acquisition. To carry this out, we designed a structured process for students to follow (see Appendices A and B), recognizing that integration may unfold across the different loci, as defined by Badley (2009).

This unfolding begins at the top with the loci of curriculum and teacher, where the professor provides foundational content and terminology, establishes a definition of faith-learning integration, and introduces the concepts of assimilation and accommodation. Next, in a shift to the loci of teacher and scholarly research, the librarian instructs students on the basic skills of interdisciplinary research, alleviating the need for expertise in multiple disciplines. At this point, focusing on the loci of scholarly research and student, each student applies interdisciplinary research skills to identify relevant sources in both the business literature and the Christian literature. Then, through a guided activity, the students engage in the process of comparing (assimilating)

these sources. In a final return to the loci of teacher and student, the professor evaluates the students' work for evidence of assimilation. This structured approach enables students to engage with faith-learning integration at a manageable level, alleviating the overwhelming nature of interdisciplinary research and bringing the final locus of integration to the student.

Given the above propositions, we consider to what degree students are able to combine knowledge from two disciplines by asking the following questions: If a student can demonstrate assimilation between disciplinary concepts, is this enough to show they are grasping the interplay between the two? Must the student demonstrate accommodation of the concepts to fully satisfy the requirements of a faith-learning integration assignment? We posit that assimilation will be sufficient, especially for students who may not adhere to a Christian worldview. In other words, every student can be taught to search and find information on a business topic along with information that contributes to a Christian view of the same topic through instruction in interdisciplinary research. With practice, every student should be able to compare the two sets of information and see how they might be held in conversation with one another. Through this approach, we believe that much of the anxiety students may experience when asked to do faith-learning integration will be alleviated.

METHODS

Participants

We chose one session from each of three different business courses in which to carry out an in-class activity on faith-learning integration (see Appendix A). These courses in marketing, management, and introduction to business were made up of undergraduate students spanning freshmen to seniors. Participants were asked to voluntarily complete an IRB-approved survey, which began with three questions about their level of confidence in faith-learning integration before participating in the in-class activity. Then, for the activity, students were taught how to do interdisciplinary research, led through a discussion of their findings, and surveyed about their perceptions of practicing faith-learning integration. Students responded to survey questions about their perceptions of ability, confidence, and challenges involved in integrating faith and learning, based on Cox et al.'s (2010) heuristic process for biblical integration. In total, 115 students participated in the in-class activity, and of those, 80 students voluntarily completed the questionnaire. Of the 80 responses, two incomplete surveys

Table 1: Survey Items

<i>Level of confidence in faith-learning integration before and after activity, by frequency</i>		Mean (n = 78, min = 1, max = 5)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Q1	Before the activity, I felt confident answering the questions of faith-learning integration.	3.29	4	5	40	22	7
Q2	When given the questions of faith-learning integration (before the activity), I felt overwhelmed by the expectations of faith-learning integration.	2.71	6	15	53	4	0
Q3	Before the activity, I found it challenging to know how to approach faith-learning integration.	2.85	4	16	46	12	0
Q4	After completing the activity, I felt confident answering the questions of faith-learning integration.	3.35	1	7	43	18	9
Q5	After the activity, I did not feel overwhelmed by the expectations of faith-learning integration.	3.38	1	11	29	31	6
Q6	After the activity, I did not find it challenging to know how to approach faith-learning integration.	3.47	1	6	29	39	3
<i>Improvement of ability of interdisciplinary search and comparing concepts, by frequency</i>		Mean (n = 78, min = 1, max = 5)	No improvement	Some	Much	Great	Total improvement
Q7	To what extent did your ability to search literature both in Christianity and business improve after the activity?	3.38	4	10	21	38	5
Q8	To what extent did your ability to compare the concepts from each discipline of Christianity and business improve after the activity?	3.10	5	16	27	26	4

<i>After receiving guidelines from the instructors, to what extent were you able to do the following during the activity? (Ability of faith-learning integration after guidance from instructors, by frequency)</i>		Mean (n = 78, min = 1, max = 5)	No ability	Some	Much	Great	Total ability
Q9	Identify words of substance that may have had relevance to Christianity and business.	3.44	2	14	21	30	11
Q10	Identify commonly spoken phrases that may have had relevance to Christianity and business.	3.33	4	12	28	22	12
Q11	Identify values-wording that evaluated something as good/bad, right/wrong, evil/holy, pleasing/displeasing, etc.	3.46	4	14	16	30	14
Q12	Identify facts-truth statements in the form of words or numerical data.	3.29	4	16	21	27	10
Q13	Discern principles-relationships among concepts that signified regularity, cause-effect, dependable rules of behavior, etc.	3.33	3	12	30	22	11
Q14	Discern issues, problems, dilemmas, uncertainties, hypotheticals, questions, etc.	3.23	1	22	24	20	11
Q15	Discern assumptions that were hidden or explicit, which support other statements.	3.24	3	20	22	21	12
Q16	Derive reasonable implications for other time periods, circumstances, people, etc.	3.15	4	19	28	15	12
Q17	Select Christian content. Namely, compare content of Christian literature to academic content to either enrich the academic content (direct application) or to enhance biblical literacy (indirect application).	3.38	2	16	24	22	14
Q18	After completing the activity, I felt confident answering the questions of faith-learning integration.	3.35	1	7	43	18	9
Q19	After the activity, I did not feel overwhelmed by the expectations of faith-learning integration.	3.38	1	11	29	31	6
Q20	After the activity, I did not find it challenging to know how to approach faith-learning integration.	3.47	1	6	29	39	3

were omitted, leaving 78 usable responses. Participants were asked to complete survey questions before and after the activity. Of the 78 participants, 11 were freshmen (14.10%), 6 were sophomores (7.69%), 24 were juniors (30.77%), and 37 were seniors (47.44%). In addition, 16 identified themselves as Catholic (20.51%), 25 as Protestant (32.05%), 15 as “other” (19.23%), and 22 as “no religious affiliation” (28.21%).

Details of the Activity

In a management class session focused on the concept of “disruptive innovation” (Christensen et al., 2015), the participants were presented with a question designed to encourage integration of Christian perspectives with business concepts. Students were told they would explore and discuss this question: “Can you find examples or narratives from Christian sources that relate to the concept of disruptive innovation, and what insights and applications might a manager gain from these?” The professor began by framing the activity as one involving interdisciplinary research, and then the librarian guided students in searching two discipline-specific databases simultaneously. This method was used to help students realize the differences in language and methods across disciplines (Lattuca, 2001) and to emphasize the importance of specific research tools and strategies for conducting interdisciplinary research (Savard, 2018). As part of the instruction, students were provided with targeted search techniques found to be useful for integrating knowl-

edge across disciplines (Savard, 2018). Next, the librarian asked students to observe the titles of 10 articles retrieved from the search of the two databases and note similarities and differences in words and concepts regarding disruptive innovation. These were written on the classroom whiteboard, showing that students had the ability to do this task regardless of their worldview. Then students were asked to individually complete a worksheet using the same process, shifting their focus to the titles of a second set of 10 articles each found on their own. As we have proposed in our study, this activity focused first on the locus of scholarly research and finished with the locus of the student as the center of faith-learning integration.

As shown in Table 1, the survey item questions related to faith-learning integration were the following: level of confidence in faith-learning integration before and after activity (Q1-Q6; Q18-Q20), improvement of ability of interdisciplinary literature search and comparing concepts (Q7 & Q8), and ability of faith-learning integration after guidance from instructors (Q9-Q17).

RESULTS

A question on religious affiliation ($n = 78$) revealed 20.51% as Catholic, 32.05% as Protestant, 19.23% as other, and 28.21% as no religious affiliation. On average, 75.51% ($n = 59$) of respondents reported feeling they pos-

Table 2: Descriptive Statistics of Respondents by Group (Christian vs. Non-Christian) for Selected Survey Questions

		N	Mean	Std. Deviation	Std. Error Mean
Q18	After completing the activity, I felt confident answering the questions of faith-learning integration.				
	Christian	48	3.73	0.82	0.12
	Non-Christian	30	3.27	0.87	0.16
Q19	After the activity, I did not feel overwhelmed by the expectations of faith-learning integration.				
	Christian	48	3.50	0.88	0.13
	Non-Christian	30	3.20	0.85	0.16
Q20	After the activity, I did not find it challenging to know how to approach faith-learning integration.				
	Christian	48	3.69	0.69	0.10
	Non-Christian	30	3.13	0.73	0.13

sessed “much ability,” “great ability,” or “total ability” in engaging with faith-learning activities related to assimilation (Table 1, average of Q9 to Q17). In comparison, an average of 24.49% (n = 19) responded as having “no ability” or “some ability” in engaging with faith-learning activities with the guidance of the instructor and librarian. It is noteworthy, with respect to responses of “much,” “great,” or “total ability” that 82.05% (n = 64) of the students responded that their ability to “search literature” in both Christianity and business improved after the activity (Q7), and 73.08% (n = 57) responded that their ability to “compare and contrast concepts” from each discipline of Christianity and business improved after the activity (Q8). In addition, 80.77% (n = 63) of the students responded that their ability had improved at a degree of “much-,” “great-,” or “total ability” in terms of being able to “discern principles” (e.g., relationships among concepts that signify regularity, cause-effect, dependable rules of behavior, etc.) in the disciplines of Christianity and business (Q13). Overall, the results indicate that most students were able to effectively adhere to the guidance and instructions, enabling them to successfully complete the faith-learning integration tasks.

With respect to feeling confident of faith-learning integration after the activity (Q18), 10.26% (n = 8) responded as “strongly disagree” and “disagree,” 55.13% (n = 43) as “neutral,” and 34.62% (n = 27) as “agree” and “strongly agree,” respectively. Namely, the respondents did not change much in their confidence before and after the activity. However, in terms of “finding it challenging to know how to approach faith-learning integration,” fewer students responded as “neutral” (Q20, 37.18%, n = 29) after compared to before

the activity (Q3, 58.97%, n = 46). Moreover, 53.85% (n = 42) responded as “agree” and “strongly agree” to not finding it challenging after the activity (Q20). With respect to the question of “feeling overwhelmed by the expectations of faith-learning integration,” fewer students responded as “neutral” after the activity (Q19, n = 29) compared to before the activity (Q2, n = 53) and 47.44% (Q19, n = 37) responded as “agree” and “strongly agree” to not feeling overwhelmed after the activity.

To investigate whether there was a difference between those who identified as Christian (e.g., Catholic, Protestant) and non-Christian (other, no religious affiliation), t-tests were run on the survey responses. Table 2 shows descriptive statistics for questions asking about respondents’ perceptions after the activity.

As shown in Table 3, for certain aspects of ability of assimilation with respect to faith-learning integration, there were statistically significant mean differences between Christian and non-Christian respondents. After participating in the activity, Christian respondents expressed higher levels of confidence (Q18) and perceived the task as less challenging, compared to non-Christian respondents (Q20). There was no difference in feeling overwhelmed (Q19). It is noteworthy that non-Christian participants did not necessarily struggle with the guidelines or completion of the activity as shown with no difference in specific tasks; however, on average, Christian respondents showed a higher degree of agreement regarding the positive effects of the activity on faith-learning integration, particularly in terms of assimilation.

Table 3: Mean Differences of Respondents by Group (Christian vs. Non-Christian), Experience After In-Class Activity

Q18. After completing the activity, I felt confident answering the questions of faith-learning integration. Q19. After the activity, I did not feel overwhelmed by the expectations of faith-learning integration. Q20. After the activity, I did not find it challenging to know how to approach faith-learning integration.								
					Significance		95% Confidence Interval	
	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Q18	2.37	76	0.01	0.02	0.46	0.20	0.07	0.85
Q19	1.50	76	0.07	0.14	0.30	0.20	0.10	0.70
Q20	3.38	76	0.00	0.00	0.56	0.16	0.23	0.88

DISCUSSION

Our study implies that students can effectively begin integrating faith and learning by approaching it as an interdisciplinary endeavor. Specifically, the pedagogical approach of assimilation does not require a fundamental shift in epistemology. Our findings have several key implications. First, through an interdisciplinary approach to the information search process, students can accomplish specific faith-learning integration tasks integral to faith-learning integration, such as identifying key terms or phrases that relate to both Christianity and business and discerning principles and relationships between concepts. Such activities serve as foundational steps of assimilation in the faith-learning integration process. Second, the assimilation stage of faith-learning integration, which includes information searching, comparing constructs, and identifying common patterns between disciplines, can serve as a precursor to the accommodation stage, which involves synthesizing the varying contexts in which a concept is applied across disciplines and reinterpreting its meaning in relation to, in our case, a business situation. Third, the impact of the interdisciplinary approach to assimilation appears to vary between Christian and non-Christian students. A central element of assimilation involves comparing constructs across two disciplines. Students with a background in Christianity may find it easier to assimilate Christian principles with business concepts, as they likely possess an established framework (e.g., an understanding of biblical principles, related terminology, and mental models) that serves as a foundation for comparisons with business constructs. In contrast, non-Christian students may encounter the additional challenge of familiarizing themselves with the theological context of Christianity. Nevertheless, our findings suggest that a step-wise approach, starting with activities focused on assimilation, can assist non-Christian students in developing the necessary skills and confidence to engage more effectively in faith-learning integration. The fact that all students were helped is an encouraging result of our study, given the spectrum of each student's experience with Christianity.

Limitations of Study

Our study has limitations that may encourage future studies. First, our survey questions were not a pre-test/post-test design in the true sense since the pre-test sample and post-test sample were not truly independent (e.g., survey and activity were completed in one class setting and respondents were not randomly selected). Although we asked the students to complete certain questions before the activity and other questions after the activity, an independent pre-

test/post-test design would better capture the change in the experience of learning. Second, the survey questions asked for students' perceptions of faith-learning integration. We believe that faith-learning integration is a latent construct, and perception is the best alternative to a proxy for the integration experience. We believe that there is a future opportunity to refine the questions to better measure the experience aspect of integration. Third, some expressions of the questions of the survey could be clearer to the respondent. For example, asking "compare and contrast" can be regarded as double-barreling and measuring different aspects of a respondent's experience.

Opportunities for Future Studies

Future research could refine and explore various methods of assimilation within the context of an interdisciplinary approach to faith-learning integration. We encourage future studies to expand this exploration to the integration of Christianity with other disciplines, thereby providing a more comprehensive and generalizable understanding of how students can effectively engage in faith-learning integration. Additionally, while this study has primarily concentrated on the assimilation stage, future studies could examine how the steps involved in assimilation might facilitate the transition to accommodation. We predict this will help students reconcile their worldviews with the principles of their academic disciplines, fostering a deeper understanding of how faith can be applied within these disciplines. Moreover, future work might explore the development of rubrics to assess the role of assimilation in advancing to accommodation as well as methods to measure both assimilation and accommodation within the context of faith-learning integration. To our knowledge, no such rubrics currently exist, and their development would contribute significantly to the field. Finally, it would be valuable to investigate whether different assimilation steps and processes are more effective for non-Christian students or those less familiar with Christian thought, offering insights into how faith-learning integration can be tailored to diverse student backgrounds.

McMahon et al. (2015), Correia et al. (2020), and Smith and LaShaw (2021) emphasize the need to explore innovative approaches for integrating faith and learning to address the shifts of students' worldviews. In response, we have adopted an interdisciplinary framework to advance this integration. We offer a practical approach to faith-learning integration, beginning with the teaching of effective research strategies essential for this process. We hope our study contributes to the evolution of faith-learning integration, offering strategies that support students in their efforts to harmonize faith with learning.

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APPENDIX A: COMPLETE DESCRIPTION OF THE IN-CLASS FAITH-INTEGRATION ACTIVITY

Students were first directed to access the Business Source Complete database via the university library's website. Then they were instructed to add the Atla Religion Database through the "choose databases" function, enabling an interdisciplinary search across two disciplinary databases simultaneously. The librarian highlighted that this process allowed the students to explore literature from both disciplines with one search. First, students determined that the phrase "disruptive innovation" would be less likely to appear in both the business and Christian literature, while the keyword "innovation" should appear in both. In addition, enough similarity and difference should result from a search of "innovation" in both databases to allow these disciplinary concepts to interact with one another.

Accordingly, students were instructed to enter the keyword "innovation" in the first search box, then to select "title" from the adjacent drop-down menu and submit the search. Because the activity was confined to one class session and aimed at the assimilation stage of integration, an examination of only the titles of resulting articles felt sufficient for the purpose of comparison. Students were shown how to toggle between the two databases to examine similarities and differences in the concept of innovation as observed in the article titles. Then, in an activity involving the entire class, the librarian solicited words and concepts associated with innovation and wrote these on a whiteboard. From the Atla Religion Database, concepts such as artificial intelligence, technology, human-centered, ethics, ecumenical, inclusive, belonging, tradition, and church finance were noted and listed on the board. The Business Source Complete database produced terms like global, future, data-driven, AI, strategic, sustainable, government, ownership, flexibility, inclusive, participation, failure, diffusion, and organizational motivators, and these were also listed on the board. This list formed the basis for the next step in the activity. Each student was given a worksheet (see Appendix B) on which to answer questions about observed similarities and differences regarding the concept of innovation in the disciplines of both business and Christianity and to ponder how a manager might apply these integrated concepts. By individually completing this worksheet, the locus of integration was moved to the student, as each student attempted to integrate faith with learning to the best of their ability.

After searching the two databases and analyzing the first 20 results from each database, students brought out the following themes on their worksheets and in their discussion. First, they determined that the Christian literature 1) showed encouragement about the use of innovative strategies for keeping the Church viable and relevant; however, 2) there was concern in the Christian literature about how technological innovations, particularly AI, could remove focus on humanity and ethics. Students then found that the business literature 1) showed that a company's innovative practices could be enhanced by flexibility, inclusivity, cooperation, and a positive organizational culture, while 2) a firm's innovation might be reduced if there were controls, regulations, sanctions, lack of motivators, and negative human resource management practices. Using an interdisciplinary lens, the students noted that a similarity in both disciplines was the focus on humanity and inclusivity, while the concept of ethics was stronger in the Christian literature but weaker in the business literature. By and large, the students were able to discuss the concept of innovation as an assimilation of ideas from both the business and Christian literature and to grasp some of the ways the disciplines of business and Christianity were able to interact with each other.

APPENDIX B: FAITH-LEARNING INTEGRATION WORKSHEET

Interdisciplinary Research—How to Search Two Databases at Once:

1. Open Business Source Complete
2. Go up to "Choose Databases," choose "Atla Religion Database," and click OK
3. Type "innovation" in the search box
4. From drop-down menu, choose "TI Title," click SEARCH
5. On the results page, scroll down and find the two databases listed on the left and click on Business Source Complete
6. Read titles of the first 2-3 pages of results in Business Source Complete and jot down words/concepts associated with "innovation"
7. Repeat steps 5 and 6 with titles in Atla Religion Database
8. Jot down differences and/or similarities between words/concepts from the two databases

Discuss:

- Is innovation viewed the same way in the context of business as it is in Christian teachings?
- In what ways can Christian thought on innovation be applied in a business context?