

EXAMINING FACTORS ASSOCIATED WITH THE PEDAGOGICAL PRACTICES USED
BY ACCOUNTING FACULTY: A MIXED METHODS STUDY

by

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(Under the Direction of Rob Toutkoushian)

ABSTRACT

Emerging technologies are shifting the landscape of the economy, and the practices of various professions. More than ever before, accounting employers require new staff to have technical accounting expertise and enhanced higher order skill sets. Since faculty play an essential role in the student learning process, accounting faculty should be implementing pedagogical practices that promote enhanced higher order skill sets to best prepare students for their careers. In this study, I examine the pedagogical practices of accounting faculty using data from the Faculty Survey of Student Engagement, complemented by 25 semi-structured interviews with accounting faculty from a variety of universities. In general, I find that accounting faculty do not engage in pedagogical practices that are designed to promote higher order skill sets in their classrooms. Instead, accounting faculty are more likely to utilize pedagogical practices that are *least* apt to emphasize higher order skills (i.e., lecturing). Further, even during the small amount of class time focused on practices that promote higher order skill sets, most faculty emphasize application or analysis skills rather than evaluation and creation skills, with the exception of the systems sub-discipline. This finding is especially concerning given that emerging technologies used in professional accounting can apply and analyze data

without human intervention, therefore evaluation and creation skills are the most critical skills needed by accountants. When considering specific pedagogical practices implemented, I find that accounting faculty's pedagogy is significantly related to characteristics of the courses taught, more so than other institutional or individual demographic characteristics. Indeed, my interviews also reveal that accounting faculty are influenced most by the specific course type in which they are teaching. Interestingly only 6 of the 25 faculty interviewed indicated that their curriculum decisions were influenced by current professional practice, suggesting students may lack the proper knowledge and skill sets as they move into their careers. Overall, this research makes an important contribution to the literature by highlighting the specific types of pedagogical practices implemented throughout the accounting curriculum and identifying disconnects between the pedagogical practices used and those proven to effectively promote the higher order skills that the accounting profession requires.

INDEX WORDS: Higher order, faculty, accounting, pedagogy

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DEDICATION

To my husband, Trent, and two lovely children, Ava and Callaway: the joys of my life.

This dissertation is also dedicated to my parents (Mike, Sara), my brother (Will), and immediate family (Rhonda, Bill, Connor, and Laura). Thank you for your prayers, love, and patience with me throughout this entire process.

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“For I know the plans I have for you,” declares the Lord, “plans to prosper you and not to harm you, plans to give you hope and a future.”

Jeremiah 29:11

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CHAPTER 1

INTRODUCTION

Examining why faculty choose to teach the way they do has been a continuing phenomenon and continuing to study this is important as faculty have an influential impact on the student learning process. This is largely in part because the reasons can vary drastically. Most of the teaching and learning literature focuses on *what* faculty do as teachers, the instructional methods employed, and how these methods may affect student outcomes. This leaves little known about the *why* faculty choose to teach the way they do (Menges, 2000). For example, do faculty choose to teach the way they do because of internal or external pressures, knowledge and beliefs of teaching and learning theories, differences in individual demographics, or possibly, a mixture of all the above.

In an attempt to understand more specifics on faculty pedagogy, the teaching and learning literature is focused around one of the four categories: faculty as teachers; students as learners; content being taught and learned; and/or the environment in which the teaching and learning occurs (Menges, 2000). All four categories are interrelated as faculty teaching practices affect the student learning process; and, the content and environment affect faculty teaching practices (Astin, 1991; Biggs, 1987). Research suggests that “students report higher levels of learning at institutions where faculty members use active and collaborative learning practices, engage students in experiences, emphasize higher-order cognitive activities in the classroom, interact with students, challenge students academically, and value enriching educational experiences” (Umbach & Wawrzynski, 2005, p.153). If more effective instruction is the goal, examining

faculty practices in further detail can provide greater understanding of current practices and areas that can be enhanced, adding value to the higher education field by resulting in specific recommendations for faculty.

Specific research suggests that disciplinary differences are key in understanding the *why* behind faculty pedagogy. As an example, Stark (2000) suggested that many faculty members undertake pedagogical practices in context within the discipline they are trained or otherwise stated, “course planning is closely embedded in the disciplines and educational beliefs to which faculty members have been socialized” (p. 430). Other researchers agree that academic fields affect a faculty member’s thought process when planning and designing course instruction and curriculum (Lattuca & Stark, 2011). Departmental pedagogical training, external accreditation, or academic journals to be published are examples of considerations that may influence faculty teach in a certain manner. One recent example of this is within the accounting discipline.

Within the accounting discipline, there has been a “shift” in the content needing to be taught to accounting students, possibly due to varying factors. While accounting fundamentals and concepts are still as important as before, the shift is due to the need of adding additional enhanced soft skills to the curriculum (AACSB, 2018; Horizons 2025 Report, 2011; Low, Botes, De La Rue, & Allen, 2016). ‘Enhanced soft skills’ is broad terminology that can encompass a variety of generic skill sets. Specifically, accountants will need include skill sets such as: advanced analytical, problem solving, and creative skills (AACSB, 2018; De Villiers, 2010; Kavanagh & Drennan, 2008). Holistically, these specific soft skills are part of a larger term, also known as higher order skill sets (Asok, 2016; FSSE, 2019). Various researchers claim a variety of reasons for the need in adding these higher order skill sets in the accounting classroom. One reason is due to the recent demand of higher order soft skills by the accounting employers

(Davidson, 2016; Low et al., 2016). More specifically, the demand in the profession stems from the growth of technology that has continually shifted the economy and the practices of accountants (Weaver & Kulesza, 2014). Accounting professionals are now required to have higher cognitive abilities, such as advanced critical thinking, analytical, and creative problem-solving skills to be able to work alongside emerging technologies (Kavanagh & Drennan, 2008; Weaver & Kulesza, 2014). In practice, since many emerging technologies will replace the need of mere technical knowledge, the need for critical thinking skills and professional judgement (examples of higher order skills) to evaluate output created by the emerging technologies will be needed. Additionally, technology is not only shifting the accounting workforce practices but all industry practices; therefore, it is important that all students moving into the workforce continue to build and enhance their higher order skill sets so they can partner alongside emerging technologies.

Another factor leading to the shift of content within the accounting curriculum is the increase in the number of accountants that will need to be familiar with two sets of accounting standards, the national and international accounting standards. Those accountants needing to be familiar with both standards, GAAP (Generally Accepted Accounting Principles) and IFRS (International Financial Reporting Standards), means there is an increased “need for accountants with strong soft skills [judgement, critical thinking, analysis, integrity] because of IFRS’s requirement to apply accounting principles rather than comply with accounting rules” (Kermis & Kermis, 2010, p. 2). Partnering this factor with the above exemplifies two differing examples of why higher order skill sets are important for accountants and how the demand for these skill sets will likely continuously increase over time.

Based on the above, the material and/or how the material is presented in the accounting classroom may likely need to be adjusted. The adjustment may also differ depending on specific accounting sub-discipline, as well. Faculty that teach courses with junior/senior level students may be more willing to adjust their curriculum more so than faculty with freshman/sophomore level students since faculty with lower level students may believe technical content is still more important. If content adjustment occurs, this may likely affect faculty pedagogical practices. For example, faculty may change their pedagogical practices from 100% lecturing to 75% lecturing and 25% group discussions in an attempt to emphasize higher order skill sets for students. However, some faculty may not be aware of the need for students to have increased higher order skill sets and thus, continue their current pedagogical practices. Separately, other faculty may be aware but believe their pedagogical practices are already adequate. Regardless, faculty pedagogical practices impact the student learning process and student outcomes (Astin, 1991; Biggs, 1987). This may result in some students being exposed to higher order skill sets while other students may not be exposed at all. Since faculty play such an essential role in the student learning process (Astin, 1991; Biggs, 1987), it is critical to understand and explore more details on accounting faculty pedagogy. Specifically, understanding questions such as what types of pedagogical practices are accounting faculty utilizing in their accounting classrooms; why do faculty choose to utilize these practices; are faculty implementing pedagogical practices that expose students to higher order skill sets; and lastly, for those faculty that are implementing pedagogical practices that expose students to higher order skill sets, how are accounting faculty doing this? However, before addressing these questions, I first provide a high-level overview on higher order skills, pedagogical practices, and more specifically the relation of these two topics regarding accounting faculty.

Higher Order Skills

It is important to determine if students are being exposed to higher order skills in the collegiate classroom because *exposure* to higher order skills can contribute to *development* of these skills (Miri, David, & Uri, 2007). More broadly, many researchers believe that faculty views of teaching and learning have a direct impact on their teaching practices (Clark, 1988; Kagan, 1992; Lattuca & Stark, 2011; Nespor, 1987; Pajares, 1992; Richardson, 1996; Zohar, 2004). In the context of higher order skills, prior research suggests that if faculty members view higher order skill sets as important, they will incorporate higher order skills into their teaching curriculum (Barak & Shakman, 2008). Since, Miri et al. (2007) stated that, “purposeful teaching for the promotion of higher order thinking does contribute to the development of critical thinking skills” (p. 366) it is important for faculty to understand and incorporate these skills into their curriculum. Specifically, within Miri et al. (2007), higher order skills were defined as higher order *thinking* skills and those *thinking* skills as contributing to the development of critical thinking skills. Other researchers also agree that critical thinking is sub-set of higher order skills (Asok, Abirami, Angeline, & Lavanya, 2016; Boddy, Watson, & Aubusson, 2003). However, higher order skills can also be defined as the development of analytical, evaluative, synthesizing, and problem-solving skill sets (Bloom, 1956; Boddy et al., 2003; Resnick, 1987; Zoller, 2002). Therefore, before identifying if students are being exposed to higher order skills in the classroom, it is important to understand the specific definition of the phrase, higher order skills, since it can be defined in a variety of ways (Boddy et al., 2003; Lemons, 2013; Resnik, 1987).

Within the teaching and learning literature, there are varying definitions of higher order skills. Earlier literature uses the phrase, higher order thinking, to define higher order skills (Bloom, 1956; Resnick, 1987). Beginning with Bloom’s Taxonomy (1956) of cognitive domain,

this taxonomy contextualizes the levels of intellectual skills, beginning with a lower order thinking mindset (remembering, understanding, applying) and moving to a higher order thinking mindset (analyzing, evaluating, and creating). Other researchers also agree that the latter intellectual skills (analyzing, evaluating, and creating) aim to measure higher order thinking (Chang & Mao, 1999; Pappas, Yahya, Toukal, & Osman, 2012; Peter, 2012; Pierrakos, & Nagal, 2013). Subsequently in 1987, the National Research Council sponsored a project that reflected on the many theories about higher order thinking (Resnick, 1987). The project study described higher order thinking as:

- Non-algorithmic - Involving paths of action for solving problems that are not specified in advance (creative problem solving)
- Complex - Involving problem solving where multiple solutions are possible
- Effortful - Involving considerable mental energy that is directed toward problem solving in a given situation
- Having nuanced judgement - Involving subtle, less-than-obvious decisions about strategies
- Applying multiple criteria - Involving transferal of some criteria to the problem-solving process
- Including uncertainty about what is known - Involving problems that do not provide a clear starting point
- Including self-regulation - Involving some degree of meta-cognition and self-awareness about strategies being employed
- Showing imposition of meaning - Involving development and application of new theories onto sets of facts and problems (Resnick, 1987).

Based on these provided descriptive terms and prior research, one could argue that higher order thinking could be defined with any or a combination of the above characteristics.

Other educational literature utilizes another phrase, higher order *learning*. By definition, the term, “learn” is defined as “gaining knowledge or understanding through study, instruction, or experience” (Learn, 2019); whereas, the term, “think” is defined as, “the action of using one’s mind to produce thoughts” (Think, 2019). With both definitions, it would make sense that students could be engaged in either higher order learning or higher order thinking; as well as, faculty could be utilizing pedagogical practices meant to enhance the higher order learning or student’s higher order thinking processes. Therefore, depending on the specific researcher, one might use the phrase higher order *learning*; whereas, another scholar may choose to use the phrase higher order *thinking*.

Furthermore, with either phrase, higher order learning or higher order thinking, most of the teaching and learning literature define the phrase using similar terminology, that faculty are exposing students or students are engaged in analysis, synthesis, evaluation, or creation skills. For this study, I adopt the phrase, higher order *learning*. Higher order learning can be defined as “engagement in complex cognitive tasks requiring more than mere memorization of facts” (Asok et al., 2016; FSSE, 2019). Examples of higher order learning include:

- applying facts and theories to practical problems
- analyzing an idea or experience
- evaluating a point of view or information
- or forming new ideas based on various pieces of information (FSSE, 2019).

Even though I choose to use the term higher order *learning* in this study, each of these examples are similar in nature to the higher order thinking intellectual skills (analyzing, evaluating, and

creating) that is provided by Bloom's Taxonomy (1956) and Resnick's (1987) definition of higher order thinking.

Pedagogical Practices

In addition to understanding higher order skills in further detail, it is also important to understand the background of certain pedagogical practices and what practices tend to promote higher order skill sets. Prior research suggests that to best develop higher order skill sets, one approach is to combine the development of these soft skills with technical knowledge in the curriculum instruction (De Villiers, 2010; Swartz & Parks, 1994). However, other research is more detailed in suggesting specific pedagogical practices that are more appropriate to promote higher order skill sets. For example, faculty that utilize student-centered and learner-centered approaches encourage their students to engage in significantly deeper approaches to learning (Trigwell, Prosser, & Waterhouse, 1999). Engagement with deeper learning is likely to grow: a student's higher order learning skill set (FSSE, 2019), gains in student personal and intellectual development (Graunke, 2017; Nelson Laird, Shoup, & Kuh, 2005a; Nelson Laird, Shoup, & Kuh, 2008b;), critical thinking dispositions (Nelson Laird, Garver, Niskodé-Dossett, & Banks, 2008a), satisfaction with collegiate experiences (Nelson Laird et al., 2005a; Nelson Laird, Shoup, Kuh, & Schwarz, 2008b), need for cognition (Nelson Laird, Seifert, Pascarella, Mayhew, & Blaich, 2014), and academic achievement (Byrne, Flood, & Willis, 2002; Zhang, 2000). This set of student outcomes leads to the question of what is meant by student-centered and learner-centered approaches. Student-centered or learner-centered approaches attempt to actively engage the student in the learning process, which some argue is also known as "active learning" (Asok et al., 2016; Peter, 2012; Roehl, Reddy, & Shannon, 2013). Student-centered or active learning pedagogical practices can also be defined as using case-based or problem-based learning

techniques (Asok et al., 2016; Gordon & Debus, 2002; Hall, Ramsay, & Raven, 2004), discussion-based courses (Szabo & Schwartz, 2012; Tsui, 2002), classes that involve writing (Gonyea, Anderson, Anson, & Paine, 2010; Tsui, 2002), or small group discussions (Murphy, Firetto, Wei, Li, & Croninger, 2016). All of these pedagogical practices are more apt to foster a student's higher order skill sets. This is in opposition to pedagogical practices such as lecture and practices that require memorization (Celuch & Slama, 1999; Daz-Lefebvre, 2004; Nam-Hwa & Howren, 2004). Thus, it is important to continue studying faculty pedagogical practices that promote higher order skills as this can lead to enhanced student outcomes, which is especially important within the accounting discipline as accounting students will be required to have these types of skill sets in their profession.

Accounting Faculty

Focusing on the literature on accounting faculty pedagogical practices, mixed results are found on whether accounting faculty utilize practices that promote higher order learning in their instruction. Some research suggests that accounting faculty encounter barriers (such as too much technical knowledge required to be taught or too many students) or just do not integrate various practices to promote higher order learning skill sets enough in the classroom (Adler, Milne & Stringer; 2000; Campbell & Lewis, 1991; Healy & McCutcheon, 2008; Libby, 1991; Milne & McConnell, 2001). However, other researchers suggest the opposite, that accounting faculty have integrated various pedagogical practices that promote higher order learning skill sets in their curriculum instruction (Buckless, Krawczyk, & Showalter, 2014; Carenys & Moya; 2016; Dockter, 2012; Phillips & Graeff, 2014).

In examining the more recent set of literature on the instruction of accounting, the focus is on the application of one specific pedagogical practice. For example, the literature discusses

the implementation success or failure of integrating one specific type of higher order learning pedagogical practice (i.e., using discussion methods, analyzing a case, utilizing problem-based learning) in relationship to a student learning outcome. The resulting student learning outcomes range from knowledge retention and application (Dockter, 2012), motivation (Dockter, 2012), confidence (Phillips & Graeff, 2014), positive attitude/satisfaction (Carenys & Moya; 2016; Phillips & Graeff, 2014), deeper understanding of accounting (Carenys & Moya; 2016; Phillips & Graeff, 2014), and critical thinking skills (Buckless et al., 2014).

Since the recent set of accounting literature is more focused on the relationship between the use of a specific pedagogical practice and student outcomes, this leaves little known about the accounting faculty that employ these practices in the classroom. In addition, there is also little known as to why or what factors prompt some accounting faculty in deciding to utilize certain pedagogical practices that promote higher order learning in the accounting classroom. For example, are there significant relationships between higher order learning pedagogical practices and accounting faculty demographics? Broader educational research provides some generalizations on the relationships between faculty demographics and pedagogical practices, but there is limited research on whether these trends are also among accounting faculty. For instance, broader education research suggests that female (Centra & Gaubatz, 2000; Zhou & Xu, 2007) and non-tenured track faculty (Nelson Laird, Garver, & Niskodé-Dossett, 2011) are more likely to utilize student-centered pedagogical practices in the classroom. However, the accounting literature provides little evidence of whether these trends also apply to accounting faculty.

Separately and beyond the relationships between demographics and pedagogy, there is also the possibility that faculty utilize pedagogical practices that are more apt to promote higher order skills sets because of the specific course taught, departmental or institution pressures,

profession or accreditation mandates, and/or due to their knowledge of student learning theories. The accounting literature suggests certain pedagogical practices that tend to promote higher order skill sets (i.e., group discussions instead of lecturing), but little is known about what factors lead some accounting faculty in deciding to utilize certain pedagogical practices in their specific accounting classroom. Do faculty demographics and characteristics matter the most when understanding pedagogical choices, or do course and institution characteristics matter more?

Thus, this research draws on this gap and utilizes quantitative analysis to understand what factors (faculty, course, or institution characteristics) are associated with the pedagogical practices used by faculty in the accounting classroom. Then, after determining whether individual, course, or institution characteristics matter most, qualitative analysis is used to compliment and expand on these findings. The remaining research questions provide further insight into what motivates faculty during curriculum building, as well as specific types of pedagogical practices accounting faculty are currently utilizing in the classroom. To address these items, a mixed methods approach is used, and the following research questions are addressed:

Quantitative:

1. What factors (individual, course, or institutional) are associated with pedagogical practices used by accounting faculty in the accounting classroom?

Qualitative:

2. What do accounting faculty describe as the reasons for choosing certain pedagogical practices in the accounting classroom?
3. Do accounting faculty utilize pedagogical practices that emphasize higher order learning in the accounting classroom?

- a. For those accounting faculty choosing to utilize pedagogical practices that emphasize higher order learning in the accounting classroom, how are faculty implementing these types of practices?

To answer research question one, data collected from the *Faculty Survey of Student Engagement* (FSSE) is used with permission from The Indiana University Center for Postsecondary Research. The significant findings provide answers as to whether there are relationships between faculty, course, or institution characteristics and pedagogical practices (such as discussion, small-group activities, student presentations, independent student work, assessment, or experiential activities); as well as, relationships between faculty, course, or institution characteristics and the emphasis of higher order learning (apply, analyze, evaluate, and create) skill sets. The FSSE data encompassed 2015 through 2017 survey answers provided from 428 accounting faculty members. As accounting faculty members completed the survey, the faculty member provided their answers based on a focus of one undergraduate accounting course section they had taught in the past year or were currently teaching. This indicates that all the survey questions were answered based on one particular accounting course, not a representation of all courses taught by the faculty member.

Following, research question two and three expand on accounting faculty pedagogy utilizing qualitative analysis. The analysis consisted of 25 semi-structured interviews of accounting faculty at 19 differing institutions. I created a set of open-ended interview questions that focused on faculty pedagogy and asked follow up questions as needed. A copy of the initial set of interview questions is in Appendix E. Research question two attempts to understand what factors accounting faculty describe as reasons for choosing certain pedagogical practices in the accounting classroom. Research question three is intended to provide further understanding of

the current types of pedagogical practices accounting faculty are utilizing. Based on the faculty member's response, I was able to understand and note if the pedagogical practices exposed students to higher order skills.

In examining both sets of data, I am able to gain more insight on the specific factors associated with the pedagogical practices used by accounting faculty in the accounting classroom and whether accounting faculty are implementing pedagogical practices that expose students to higher order learning skills. For those faculty that are implementing types of practices that expose students to higher order learning skills, I also collected detailed evidence on how accounting faculty are implementing these practices in their accounting classroom. Lastly, by examining this set of data, I am better able to provide the enhancement areas needed for faculty. While the research questions focus specifically on the accounting discipline, regardless of the discipline, all faculty would likely benefit from the knowledge of these findings since all students benefit greatly from increased higher order skill sets (Graunke, 2015; Nelson Laird, Garver, et al., 2008; Zhang, 2000). These skill sets allow students to solve complex issues, develop innovative ideas, and derive insightful conclusions.

Thus, this dissertation is structured as follows. Chapter 2 provides an overview of the relevant theory and literature, including the background on higher order learning, faculty, and faculty pedagogical practices. Chapter 3 includes a description of the data, research methods utilized, and limitations of the research study. Chapter 4 presents the findings. Lastly, Chapter 5 includes the discussion and conclusion, incorporating a section for direction of future research in this area.

CHAPTER 2

THEORY AND LITERATURE REVIEW

Within this chapter, I provide a detailed review of the relevant theory and literature related to faculty, faculty pedagogical practices, and higher order learning. First, I begin with a brief overview of various theories and models that help shape the research questions, then move into a discussion on the prior literature.

Theories and Models

There is limited published literature that focuses on explaining why faculty behave like they do in the classroom, especially at the higher education level (Hativa, 2000). Menges (2000) claims that faculty behave differently for varying reasons, and it is extremely difficult to understand *why* faculty teach the way they do because of the vast number of influential factors. However, some scholars advocate that cognitive psychology best explains faculty behavior and cognition (Blackburn & Lawrence, 1995; Darby & Newman, 2014; McFadden & Perlman, 1989; Oleson & Hora, 2014). Most of the literature utilizes Bandura's self-efficacy theory (1977) or social learning theory (1989). Self-efficacy theory contends that faculty behavior is influenced by belief in oneself; whereas, social learning theory focuses more on the influence others have on an individual. Further, other scholars contend that intrinsic motivation plays a greater role in explaining faculty behavior (Bess, 1977; Crumpacker, 2001; Katzell & Thompson, 1990). Therefore, the following provides further details on the various cognitive psychology theories scholars claim explain faculty behavior as teachers.

First, two cognitive and behavioral theories are discussed, self-efficacy theory and social learning theory. Bandura's self-efficacy theory (1977) attempts to explain "how a person develops an expectation of efficacy, that is, a belief that one possesses skills and can use them in a particular situation. Efficacy expectations then influence which activities one will choose, how much effort will be expended, and how long effort will be sustained in the face of obstacles" (Landino & Owen, 1988, p. 2). Taken in the context of the academic setting, depending on how well faculty believe they have the skills to teach successfully in the classroom will likely influence the specific pedagogical techniques used by those faculty members. Some scholars even suggest the ratio of females to males in the workforce may impact female's self-efficacy (Kanter, 1977; Landino & Owen, 1988), in turn, this would specifically affect the female's choice of pedagogical techniques employed in the classroom. Separately, Bandura's social learning theory (1989) may also provide context in explaining why faculty chose to teach the way they do. Bandura's social learning theory emphasizes that one's own actions or knowledge may be influenced by observing other's behavior. This compliments Vygotsky's (1960) idea of social cognitive development in that he suggested individuals are influenced by social interactions. Faculty members may shape their pedagogy based on experiences in their PhD programs, various conferences, or observations of other faculty members teaching in the classroom.

Likewise, various work motivation theories may also help explain faculty behavior as teachers. Work motivation is defined, "as a broad construct pertaining to the conditions and processes that account for the arousal, direction magnitude, and maintenance of effort in a person's job" (Katzell & Thompson, 1990, p. 144). Examples of work motivation theories include motive/need theory, incentive/reward theory, reinforcement theory, goal theory,

group/norm theory, expectancy-valence theory, and attitude theory (Katzell & Thompson, 1990; Ryan & Deci, 2000). Each theory is unique and some of these examples even have smaller, subset categories that attempt to explain individual's intentions and values in their jobs (Katzell & Thompson, 1990). Therefore, it is important to keep the context in mind when examining specific faculty pedagogy to identify the most appropriate motivation theories in the situation or study. Overall, depending upon the faculty member, discipline, department, and/or institution, each of these different psychological and behavioral type theories (self-efficacy, social, or motivation) may provide better insight into *why* faculty choose to teach the way they do.

In addition to these theories, various other scholars examine faculty pedagogy through empirical studies. Two examples of empirical studies that explain influential factors on faculty pedagogy include Blackburn and Lawrence (1995) and Lattuca and Stark (2009). Blackburn and Lawrence utilized self-efficacy theory for the base of their empirical analysis. The analysis included surveys of 4,400 faculty members within arts and sciences departments across various institutions. Findings suggested that faculty's behavior in their teaching efforts are influenced by sociodemographic variables (age, gender, ethnicity), career variables (discipline, academic institution, past and previous positions, career age), self-knowledge variables (attitude, beliefs), and social-knowledge variables (perceived environment, supportiveness of colleagues). Specifically, Blackburn and Lawrence examined how these variables influenced actual percent of faculty effort allocated to teaching. A few key findings included that the sociodemographic and career variables explained a smaller portion of the overall variance in their regression. Some specific examples include that female/male differences with respect to teaching are disappearing, and within the career variables, academic rank was the most significant (with assistant professors and full professors near the end of their career indicating a higher degree of interest in teaching).

Separately, the leading predictor variable that influenced actual percent of faculty effort allocated to teaching was a social-knowledge variable, faculty perception. The more faculty perceived their institution wanted them to give to teaching the higher the actual percent of faculty effort allocated to teaching. Due to the variety of possible relationships that may affect faculty behavior, it is important to consider all variables (sociodemographic, career, self-knowledge, and social knowledge) in attempting to understand more about faculty pedagogy.

Within this research study, the quantitative analysis focuses on how the sociodemographic and career variables may affect faculty pedagogy, whereas, the qualitative analysis also focuses on career variables, but more so on self-knowledge and social-knowledge variables. Specifically, the quantitative analysis examines the relationship between pedagogical practices and the following sociodemographic and career variables: gender, age, ethnicity, U.S. citizen, full-time, rank/tenure, course level, course size, format of course, how many times the faculty member taught the course, and if the course is a general education requirement. Following the quantitative analysis, the qualitative interview analysis focuses on other factors that may affect choice of pedagogy, including variables that would categorize within the self-knowledge or social-knowledge categories.

Subsequently, Lattuca and Stark's (2009) work focused on factors that influence faculty's development of curriculum. Influential factors including both external and internal forces. Examples of external forces are variables such as market forces, government, accreditation agencies, and disciplinary associations. Examples of internal forces are classified in two separate categories, institutional and unit level variables. Institutional variables focus on how the college mission, resources, and governance may influence faculty development of curriculum; and unit level variables focus on how faculty characteristics, discipline, and student characteristics may

influence faculty development of curriculum. Thus, the qualitative analysis of this research study aims to understand what specific types of external and internal factors may influence a faculty member's development of curriculum.

Furthermore, while it is important to examine theory and empirical analysis that explain why faculty behavior in certain ways, it is also essential to understand why faculty behaviors matter. Ultimately, faculty behaviors have a direct impact on student learning (Astin, 1991; Biggs, 1987). Biggs (1987) and Astin (1991) suggest two distinct student learning models that describe how faculty fit into the larger spectrum of the student learning process. While these models were originally designed to focus on the student, the models exemplify how a faculty member fits into the overall learning environment. Biggs (1987) proposed a three-stage model of student learning, known as the 3P model, which included three stages: presage, process, and product. The first stage, presage, focuses on the experiences or influential factors that may impact the learning process. There are two sub-categories of experiences or influential factors, the first sub-category are those factors that are personal to the student and the second is those factors that are situational. Examples of personal factors include prior knowledge, personality, and home background, whereas, situational factors include the subject area, teaching method, time on task, and course structure. Both sub-categories, personal and situational factors, play a role in the student's learning process. The second stage, process, focuses on the actual learning process or strategy adopted by the student. A student can adopt a deep, surface, or achieving learning strategy. The deep learning strategy indicates the student has engaged in learning that is "meaningful, interrelating previous knowledge, studying to actualize interest and competence in subjects" (Biggs, 1987, p. 11). The surface learning strategy means the student is "focused on meeting minimum requirements and reproducing through rote learning," and the achieving

learning strategy means the student is focused on “competition, obtaining the highest grade, and behaving as a ‘model’ student” (Biggs, 1987, p. 11). In addition, if a student engages in a deep learning strategy, they are also likely increasing and enhancing their higher order learning skill sets (FSSE, 2019). Lastly, the third stage, product, focuses on the student outcomes as a result of the learning process. For this research study, I use this model as informational to exemplify how faculty members (presage) could influence whether the student is engaging in practices more apt to promote higher order learning skill sets (process).

Secondly, Astin’s (1991) I-E-O model was developed strictly in the context of higher education, where “I-E-O” stands for inputs, environment, and outputs. Inputs are the personal characteristics that students bring into their educational experiences and is similar in nature to the personal presage characteristics of the Biggs (1987) model. Astin’s (1991) environment refers to the student’s higher education experience, and outputs are the resulting student outcomes. More specifically in relation to this study, prior research has suggested that environment factors are the biggest predictor of student’s competency development (Norwani, 2005). Thus, in a similar manner to Biggs’ (1987) model, for this research study, I use Astin’s (1991) model as informational, as well.

Learning and Learning Theories

As noted from the theories and models discussed above, it is evident that a faculty member is essential in the student learning process. Therefore, before expanding on higher order learning specifically, I examine the various definitions of learning and learning theories.

Defining the term, “learning” can be complex as it can be defined and construed in numerous ways, in part, because the scholarship of teaching and learning is continually evolving over time. There is a substantial amount of theory and literature that focus on the views,

perspectives, models, and frameworks that attempt to explain student learning as it has changed over time. Some scholars define learning as being trained to produce responses; whereas, others define learning as employing memorization; gaining facts of information; processing knowledge; or constructing knowledge. To understand these differing viewpoints, I provide a short review on learning theories as they have developed over time. Learning theories can be dated back to Plato, Aristotle, and Socrates (Bates, 2019); however, this research paper focuses on subsequent learning eras, including the time periods where researchers and theorists focused on describing of learning and learning theories as behavioral (1900s); cognitive, constructive, and humanistic (mid-late 1900's); and lastly, I provide a short discussion on the most current era of understanding the definition of learning (late-1900's – 2020).

Behavioral Era. At the core of the behaviorism era (1900s), learning was viewed as reactive. During this time period, many researchers and psychologists defined learning as understanding the behavior change between introduced stimuli and the response to those stimuli (Pavlov, 1903; Watson, 1913). Others suggested a more specific definition in that, “the basic premise of behaviorism is that people need to be directed and that if the stimulus is something the individual wants (a reward) or fears (a punishment), then the individual will respond accordingly and there will be a noticeable change in behavior” (Bates, 2019, p. 44). This change in behavior was what was considered learning. Thus, the following sub-section discusses researchers and psychologist's descriptions of learning and learning theories during the behaviorism learning era, including Pavlov (1903), Watson (1913), Skinner (1938) and Gagné and Newell (1970).

Dating back to early 1900, Pavlov (1903) developed his thoughts on human behavior in part by studying how animals behave; while, Watson (1913) focused on similar research but

specifically on humans (babies). Pavlov (1903) used the example that dogs drool when seeing food, and that is a learned behavior because dogs were not born to automatically drool when food was present, dogs were conditioned to produce this response. Thus, this learning was a taught reactive response. Drawing from Pavlov's (1903) research, Watson (1913) believed that by introducing stimuli and measuring the response to the stimuli, this was considered learning. One would need to understand the connection between inputs (stimuli) and outputs (responses) to understand what was learned from the process. As an individual is continually exposed to similar inputs, the learning process becomes more efficient, in turn, producing outputs quicker. In a similar manner, Skinner (1938) coined the phrase, operant conditioning, where learning was based on the study of an action and the consequences of that action. Skinner believed that reinforced behavior is continually repeated, while non-reinforced behavior weakens over time. Reinforcement is key; and learning is reactionary.

During the late-1900s, one could argue that Gagné and Newell's (1970) theories of learning could be classified in the behaviorism learning era, as well. While Gagné and Newell believed that learning was reactive, they also believed there were multiple levels of learning processes. Learners progressed through stages as they developed their learning capabilities (expectancy, apprehension, acquisition, retention, recall, generalization, performance, and feedback), and learners must master the lower stages prior to moving to the latter stages of the learning process. In addition, there was also a focus on the instructor as the designer and manager of the learning process. Overall, Gagné and Newell's (1970) had more of a hierarchal viewpoint and mirroring some aspects of the next era of learning.

Cognitive, Constructive and Humanistic Eras. Due in part to the discontentment from the behavioral theories of learning (Bates, 2019), new considerations/ideas of learning emerged.

These eras included viewing learning as cognitive, constructive, and humanistic (mid-late 1900s). Holistically, these three ideas posed that learning was responsive (not reactive). Specifically, cognitivists treated the learner as an information processor, and learners built their knowledge based on their experiences (Dewey, 1958; Vygotsky, 1964). Cognitivism was also “based on the principle that information is actively processed inside the mind of the person, and that behavior modifications take place by searching for the relationships that exist between the various bits of information” (Bates, 2019, p. 67). However, Piaget (1972) argued that at the heart of cognitivism was the idea that learning was constructed by individuals. Thus, the individual constructs knowledge for themselves to determine the meaning. Based on the idea that constructivism treats the learner as an information constructor, one could argue that constructivism is branch of cognitivism; however, arguments could also be made for constructivism as its own learning era, as well. For purposes of this research study, I group them together (cognitivism and constructivism) and discuss researchers that attempted to explain learning in the context of both, including Dewey (1958), Bloom (1956), Vygotsky (1964), and Marton & Säljö (1976). Then, I move into a brief discussion on how this also relates to what some deem the “humanistic” learning era, as well.

Dewey (1958) believed that learning not only required cognitive skills but also developed cognitive skills, as well. He believed that learners should be able to take smaller pieces of information and process them into one larger picture and understand a holistic view of something. He considered this learning. Dewey also argued that learning should be an active process, where students learn to analyze information and reflect on the information that was presented to them. Portions of Dewey’s theory could be argued as cognitivism (processing information) or constructivism (constructing the larger picture).

In addition to Dewey (1958), Bloom (1956) introduced a taxonomy framework of cognitive learning levels. The framework consisted of various levels that learners progressed through, starting at lower order thinking skills and moving to higher order thinking skills. The original hierarchy, similar in some ways to Gagné and Newell's (1970) hierarchy, incorporated the following cognitive learning levels: knowledge, comprehension, application, analysis, synthesis, and evaluation. Later, a revised hierarchy was introduced by other researchers that expanded on Bloom's (1956) original hierarchy and included the cognitive learning levels of remembering, understanding, applying, analyzing, evaluating, and creating (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths, & Wittrock, 2001). A pictorial image is available in Appendix A. The two, largest changes from the original hierarchy included the alteration of the highest level (evaluating to creating) and the change from nouns to verbs. Some argue the new, revised taxonomy better describes learner's thinking processes rather than behaviors (Anderson et al., 2001), and the new verbs are better able to encompass a variety of subcategories (Munzenmaier & Rubin, 2013). Example subcategories of "remembering" include recognizing and recalling, or subcategories of "creating" include generating and planning. With either framework of taxonomies, one of the major goals was to show logical relationships among progression of cognitive learning levels (Munzenmaier & Rubin, 2013).

The taxonomies were created to exemplify how learners first master lower order thinking skills then progress to master higher order thinking skills. The lower order thinking skills include the bottom of the taxonomy while the higher order thinking skills include the top of the taxonomy. Starting at the bottom of the taxonomy, learners begin by *remembering* information (and potentially regurgitating it), then progress to *understanding* the information (processing the information received). If the learner continues to progress up the hierarchy of cognitive learning

levels, the learner *applies* the information to the task at hand and begins to *analyze* the information (focusing on how to implement, organize, distinguish, structure, and integrate the information). Then, students *evaluate* the information received by making judgements and drawing conclusions; and lastly, students *create* new information and knowledge by generating, producing, or constructing new ideas. Bloom (1956) argued that learning was considered more meaningful as a student progressed from the remembering cognitive level to the evaluating/creating cognitive levels.

Slightly different than Bloom's (1956) taxonomy but still considered during the cognitivist and constructivist learning eras, Vygotsky (1964) introduced the ideas of social learning theory and scaffolding. He argued that not only was learning based off cognitive skill sets but was also constructed by an individual's social interactions. Whether social interactions were with close relatives, faculty members, or friends, all social interactions played a role in how learners processed information; and from this, Vygotsky grouped each sets of individuals that a learner would interact with into specific groups. He suggested that each group of individuals had a varying degree of influence on the learner and that degree of influence transformed what was learned by the student. In addition, he also introduced the idea of scaffolding learning, and this type of learning focused on how the teacher provides additional support for learners in order to enhance learning and build cognitive skill sets (Berk & Winsler, 1995).

Furthermore, during the later-1900s, Marton & Säljö (1976) studied phenomenological psychology (study of experiences) and introduced the idea that learners or students engaged in either a surface or deep approach to learning. Marton & Säljö claimed that a student's learning approach was the driving factor in the learning process. These approaches to learning could classify in both cognitivism and constructivism learning eras because of how they are defined. A

surface approach to learning included rote learning or memorization to process information; however, a deep approach to learning included critically analyzing information, integrating various sources of information, and reflecting on the information learned (Marton & Säljö, 1976). This is similar to Bloom's (1956) taxonomy, as various levels in Bloom's (1956) hierarchy could be classified within the "surface" or "deep" approach to learning categories. As an example, the remembering cognitive level would likely categorize within the surface approach to learning while analyzing, evaluating, and creating cognitive levels would likely categorize as a deep approach to learning. Analyzing, evaluating, creating were all examples of Bloom's (1956) higher order thinking skill sets. Tying this with the current data used in this research paper, the FSSE (2019) survey also classifies higher order learning as a sub-set of deep approach to learning.

Additionally, the mid to late 1900s brought about another wave of understanding learning, what some argue is called the "humanism" learning era (Bates, 2019). During this time period, learning was considered even more so a personal act than during the cognitivist and constructivist eras. As the momentum shifted to a focus on the empowerment of the learner during this era, there was also a paradigm shift in higher education (Barr & Tagg, 1995; Bates, 2019). The paradigm shift was from an instructor-centered learning environment ("sage on the stage" model) to a focus on a student-centered learning environment (Barr & Tagg, 1995; Bates, 2019). This shift in culture meant there was less of a focus on "instructor teaching" to more of "production of learning" from the student. The learner was now more responsible for their own learning while instructors took on more of a facilitator role, to help guide learners, which also mirrors the understanding of the humanism learning era. This paradigm shift reenergized the idea of understanding how adults learn (andragogy), and many additional theories emerged during the

humanism learning era. The following are discussed: Kolb's experiential learning theory (1984) and Merizow's adult transformation theory (1991, 1993).

Kolb's experiential learning theory (1984) contended that learners constructed knowledge based on their experiences, and that individuals both take information in and process information differently. Before diving into further details, one could argue that this theory could be classified within the constructivism or humanism learning eras; however, I classify his theory in the humanism era based on the ideas that this theory incorporates more of a focus on the learner. Within experiential learning theory, Kolb believed that while knowledge is created, the focus is on the learner's experiences which ultimately shapes a learner's learning style. Based on this, Kolb's main focal point was that since experiences were at the forefront of constructing knowledge for learners, learning styles will differ across individuals.

Subsequently, Mezirow (1991, 1993) developed the idea of transformative learning and the adult transformation theory. Transformational learning included three themes: experience of life (starting point in a learning event), critical reflection (feature of adult learning, learner questions the truth of their own beliefs), and rational discourse (learner explores the depth of their beliefs). Critical reflection and rational discourse together transform the learning process for the learner. However, all three themes formed the foundation of the adult transformational theory, suggesting that adults enter a situation with a certain set of beliefs, and those beliefs form boundaries (Mezirow, 1993) during the learning process. Adults only learn what they want to learn out of situation and are bounded by their own belief systems created from prior experiences. From this basic definition, one could argue that the adult transformation theory also blends ideas from the constructivism learning era (that learners construct only the knowledge they want).

Current era of learning (late 1900s – 2020). With the focus of learning moving toward a more humanistic perspective coupled with the advancement of technologies in the 2000s, there was a renewed interest in how the brain processed information and how technology affects learning (Bates, 2019). This renewed interest in brain-based learning was driven by emerging technologies because scientists were attempting to get technologies to mimic the brain's processes. Thus, within the following subsection, the most recent ideas on learning are discussed: brain-based learning and Siemen (2004) & Anderson's (2016) idea of connectivism.

Renewed interest on how the brain is naturally designed to learn turned the focus to understanding how memory works, how information is received, stored, maintained, and retrieved within the brain (Jensen, 2008). In brief, once information is received, it first goes to the sensory memory. From the sensory memory, information that is selected to be remembered is passed to the working memory, where the working memory can hold around five to nine chunks of information at one point in time (Miller, 1956). However, more recent research argues that these limits (five to nine) may be able to be increased with maturity (Cowan, 2016). Regardless, after information is in the working memory, information that is considered valuable and important to the learner is then transferred into the long-term memory. In the long-term memory, learners associate previous experiences to the new pieces of information to easily store the information. The created association between previous experience and new information helps the learner in easier retrieval of this knowledge at a later point in time (Bates, 2019).

In today's digital age, understanding brain-based learning has become increasingly more important to researchers as the rise of emerging technologies are mimicking this learning process. Emerging technologies, such as artificial intelligence and machine-based learning, are

being taught to mimic the human being's learning process; and, thus, the technology is being taught "how to learn" (Nilsson, 2014). As technology and machines have already started to gain traction in this area and continually become more advanced, human beings will be able to access information quicker, aiding in increasing society and personal knowledge bases (Bates, 2019).

Another recent concept developed to explain how learning is changing with technology is called *connectivism*. Connectivism is built upon the foundations of prior learning eras but adding the impact of today's fast paced technology environment. The advancement of technology allows information to be at the tips of an individual's fingertips; thus, individuals must be able to filter through all the easily accessible information (Anderson, 2016; Siemens, 2004). Siemens (2004) suggested that access to multiple sources of information at any given time required learners to make judgements of whether the information is relevant or not relevant. During the learning process, decision making questions become more important for learners in the digital age, questions such as: "Is this piece of information true or false?", "How is it related to the information I just found?", "Is the information from a reputable source?", and "Is this information still relevant for our conversation today?" (Siemens, 2004). Based on these ideas and questions, connectivism attempts to explain learning as, "focused on connecting specialized information sets, and these connections that enable us to learn more are more important than our current state of knowing" (Siemens, 2004, p. 4). In the context of higher education, the faculty member helps students learn how best to digest and learn from the multiple pieces of information as best as possible.

Based on the ideas discussed in this sub-section around learning and learning theories, it is easy to understand how learning has evolved from being viewed as reactive (behaviorism), to responsive/reflective (cognitivism, constructivism, humanism), to considered as receptive

(current era). As a whole, these ideas, concepts, and theories that surround learning could even be classified under “constructivism” because they are examples of how the definition of learning and the learning process differs based on various views of theorists and researchers.

However, many of these theories have a common factor, which is how other individuals (i.e., a faculty member) is an influential part of the student learning process. That is, the teacher (or in the context of higher education, the faculty member) can shape the learning process and environment for students. Therefore, irrespective of the various influences that may affect faculty behavior, it is still important to understand the background behind learning and learning theories since these definitions and theories help exemplify the fact that faculty members play such an essential role within the learning process of higher education students.

Higher Order Skills

As acknowledged within some of the previous learning theories, higher order skills are important skill sets for students. First, higher order skills should specifically be defined as many theories utilize detailed phrases such as: higher order *thinking* and high order *learning* when focusing on development of higher order skills. As mentioned in the introduction, Bloom’s (1956) taxonomy and Resnick (1987) incorporated the ideas of the phrase, higher order *thinking*. Beginning with the foundational definitions, Bloom’s (1956) taxonomy and Resnick (1987) both provided similar definitions of higher order *thinking*. Bloom’s (1956) taxonomies of cognitive learning levels included the following words to define higher order *thinking*: analyzing, synthesizing, evaluating, and creating. Analyzing is defined as going, “beyond knowledge and application, actually being able to see patterns that they can use to investigate a problem” (Bloom, 1956, p. 22). Synthesizing is defined as “using the given facts to create new theories or make predictions by pulling knowledge from multiple subjects” (Bloom, 1956, p. 23). Evaluation

requires “assessment of information and coming to a conclusion such as its value or the bias behind it” (Bloom, 1956, p. 23). Lastly, creating is putting elements together to form an original product (Anderson et al., 2001). Furthermore, in 1987, the National Research Council sponsored a project that reflected on the many theories about higher order *thinking* (Resnick, 1987). The study described higher order *thinking* as thinking that is non-algorithmic, complex, effortful, having nuanced judgement, applying multiple criteria, including uncertainty about what is known, including self-regulation, and showing imposition of meaning (Resnick, 1987).

Similarities are found within the following terminology between Bloom’s (1956) taxonomy and Resnick’s (1987) definition:

- Analyzing and non-algorithmic, complex, effortful
- Synthesizing and application of multiple criteria
- Evaluating and complex, effortful, nuanced judgement
- Creating and imposition of meaning

In addition to these foundational definitions of higher order *thinking*, prior research has even suggested that, “purposeful teaching for the promotion of higher order *thinking* does contribute to the development of critical thinking skills” (Miri et al., 2007, p. 366). In this context, higher order skills are specifically defined as higher order *thinking* skills and those thinking skills as contributing to the development of critical thinking skills. Other researchers also agree that critical thinking is sub-set of higher order skills (Asok, Abirami, Angeline, & Lavanya, 2016; Boddy, Watson, & Aubusson, 2003;). However, higher order skills can also be defined as the development of analytical, evaluative, synthesizing, and problem-solving skill sets (Bloom, 1956; Boddy et al., 2003; Bonwell & Eison, 1991; Chang & Mao, 1999; Pappas et al., 2012; Resnick, 1987; Zoller, 2002;). For instance, in addition to Bloom (1956) and Resnick’s

(1987) work, Bonwell and Eison (1991) suggested that for students to be actively involved in their learning, they must “engage in higher order thinking tasks such as analysis, synthesis, and evaluation” (p. 5). Subsequently, Boddy et al. (2003) suggested as students start to think “convergently and divergently to investigate problems” (p. 28) they are engaging in higher order and critical thinking skills. More recently, Asok et al. (2016) suggested a broader definition of higher order skill sets, stating that these types of skills “drive beyond basic observation and memorization” (p. 47). Additionally, critical thinking was also a specific higher order thinking skill, suggesting that “critical thinking is criteria based, criteria being defined as requiring the differentiation of fact from fiction; synthesizing and evaluating information; and clearly communicating, solving problems, and discovering truths” (p. 48), which ties back to the work of Miri et al. (2007). Thus, from an overall standpoint, while various definitions may exist for higher order *thinking* in the educational literature, many of the same terms are overlapped between the definitions (critical thinking, analyzing, synthesizing, evaluating, and creating).

Furthermore, and expanding on this topic from the introduction, for purposes of this research study I use the phrase, higher order *learning*. Specifically, FSSE (2019) defines higher order *learning* broadly but still encompasses the specific terminology found in prior research. FSSE states that,

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by calling on students to engage in complex cognitive tasks requiring more than mere memorization of facts. This engagement indicator, higher order *learning*, captures how much students' coursework emphasizes challenging cognitive tasks such as application, analysis, judgment, and synthesis (FSSE, 2019).

I use higher order *learning*, defined as “engagement in complex cognitive tasks requiring more than mere memorization of facts” (Asok et al., 2016; FSSE, 2019). Examples of specific higher order *learning* pedagogical practices that can be utilized in the classroom include applying facts, theories, or methods to practical problems or new situations; analyzing an idea, experience, or line of reasoning in depth by examining its parts; evaluating a point of view, decision, or information source; and forming a new idea or understanding from various pieces of information (FSSE, 2019). More specifically, I focus on accounting faculty’s emphasis of higher order *learning* utilized in the accounting classroom.

The Role of Faculty Members

Before diving into a focus on accounting faculty practices that emphasize higher order learning in the classroom, I first provide a brief synopsis of the role of faculty in the higher education system. The role of faculty is central within the American higher education system, and depending upon the type of higher education system in which the faculty is employed (four-year research institute, community college, etc.), faculty members may be responsible for a mixture of teaching, research, and service responsibilities (Hartman & Dziuban, 2007; Mamiseishvili, Miller, & Lee, 2016). Researchers suggest that when it comes to student learning, the emphasis is placed on the teaching and research responsibilities of faculty (Fairweather, 1996, 2002; Marsh & Hattie, 2002). For purposes of this research study, I focus specifically on the teaching responsibilities.

Within the teaching aspect, faculty could be responsible a wide range of items, including curriculum development, course design, course planning, office hours, mentoring, advisement of students, and assessment, etc. (Oleson & Hora, 2014; Stark, 2000). For this research study, I examine course design and delivery in more detail. When designing courses, faculty “need to

know who their students are and what experiences they will be bringing to their studies” to best guide and facilitate student learning (Vrasidas, 2000, p. 746). In addition, faculty “beliefs in their personal efficacy to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve” (Bandura, 1993, p. 117). Thus, when faculty design and deliver their course, they must take tremendous amounts of time to plan, with every faculty member likely having different experiences and beliefs that affect their planning process. Examples of factors that may influence faculty’s planning process range from the institution type in which the faculty is employed, the specific department or discipline, personal characteristics of faculty (gender, race, etc.), specific level of course being taught, medium in which the course is delivered, and pedagogical practices employed in the classroom. For example, at the institutional level, some researchers argue that faculty in liberal arts colleges are likely to have their students engage in more deep learning, critical thinking problems, and higher order skills than those faculty at other institutions (Umbach & Warzinski, 2011). Research suggest this may be true because faculty at these institutions may have less research and service responsibilities, thus more time to plan and structure their courses to be more learner centered (Umbach & Warzinski, 2011). However, in contrast, arguments could be made that prestigious faculty researchers at R1 institutions challenge their students at a higher level more so than faculty at liberal arts colleges due to the nature of better understanding the research within the teaching and learning scholarship. Although institutional features may influence faculty’s design and delivery of instruction, other factors such as number of the students might also impact faculty’s planning process. For instance, prior research has suggested that the more students in one class setting, the likelihood of the course will be more lecture-based and provide less hands-on, active learning activities (Cuseo, 2007; Prosser & Trigwell, 2014; Nelson Laird et al., 2011).

With this, these two factors (institutional and course size) represent just two of the numerous examples that could influence how faculty members plan their courses.

In thinking about the numerous examples that could influence faculty members design and delivery of course material, this ties back to the work of Blackburn and Lawrence (1995) and Lattuca and Stark (2009). As mentioned earlier, Blackburn and Lawrence suggested that faculty's behavior in their teaching efforts are influenced by sociodemographic variables (age, gender, ethnicity), career variables (discipline, academic institution, past and previous positions, career age), self-knowledge variables (attitude, beliefs), and social-knowledge variables (perceived environment, supportiveness of colleagues). In addition, Lattuca and Stark's (2009) work focuses on external and internal forces that influence faculty's development of curriculum. Thus, since this study is designed to examine the various factors that may be associated with accounting faculty pedagogy, I first examine the prior literature among these factors.

Faculty Characteristics

Since a majority of the teaching and learning literature focus on the influence of how two of the variables, sociodemographic and career variables, may influence design and delivery of instruction in the classroom, I focus on what the literature has already suggested about these two variables. As an example, female faculty are more likely to use student centered learning techniques (Centra & Gaubatz, 2000; Zhou & Xu, 2007) and active learning techniques (Nelson Laird, Garver, & Niskode-Dossett, 2011). However, other faculty demographics and characteristics may also influence the design and delivery of instruction, such as: citizenship, race, part-time/full-time, rank, tenure, years of experience, age, and discipline. Since there are a wide range of various faculty demographics and characteristics that may affect pedagogical practices differently, it is important to understand what prior literature has suggested among each

of these factors. Accordingly, the following sub-sections provide a review of the literature regarding how these specific faculty characteristics and demographics (gender, citizenship, race, part-time/full-time, rank, tenure, years of experience, age, and discipline) may affect faculty teaching and pedagogical practices. Lastly, I move into a discussion on how disciplinary differences may also affect faculty teaching and pedagogical practices.

Gender. Research tell us that males and females are different in a variety of ways, and this is no different when it comes to how gender differences may impact the teaching techniques utilized by faculty members. As stated previously, prior research has suggested that female faculty are more likely to use student centered learning techniques (Centra & Gaubatz, 2000; Zhou & Xu, 2007) and active learning techniques more so than male faculty (Nelson Laird et al., 2011). Females are also more likely to use a facilitator or delegator style of teaching (Grasha, 1994), spend more time designing their courses (Singer, 1996) and use effective educational practices (Kuh, Nelson Laird, & Umbach, 2004). Since the paradigm shift in higher education to a more student-centered learning environment (Barr & Tagg, 1995), it could be suggested that females who are utilizing these types of pedagogical practices in the classroom may be providing higher level learning for students (Cochrane, 2013; Stoerger, 2013).

Moreover, Zhou and Xu (2007) suggested that female faculty were less comfortable and confident than their male counterparts in utilizing technology within their classrooms. Females had lower confidence and felt as if they had less experience with the use of computers in their teaching, indicating males were more likely to integrate technology within their curriculum. This may also impact student learning because if a student has all female faculty, they may not experience technology as much in the classroom compared to a student who has all male faculty. To increase technological knowledge, females stated they tended to learn better in a social

environment; whereas, males preferred more hands-on activities and self-guided instruction when learning how to utilize technology in the classroom (Zhou & Xu, 2007). Meaning that if females do not have access to group learning environments, then their technological knowledge may not increase as quickly as males, who were willing to learn more independently, which again, ultimately impacts the student learning environment. All of this is important to understand as integrating technology into the classroom can increase student's application of real-world skills and synthesis abilities of complex content (Shank, 2005).

Lastly, another body of educational literature focuses on faculty responses from student evaluations and how they differ by gender. Female faculty are more negatively impacted by student evaluations than male faculty (Kogan, Schoenfeld-Tacher, & Hellyer, 2010). This could impact pedagogical practices utilized in the classroom as depending on the information received in the evaluations, this could or could not influence how a faculty member chooses to structure their class moving forward. For example, since females are more negatively impacted, they may decide to change the entire structure of their course (good or bad) or may feel very frustrated and decide not to change any of their course structure at all. On the other hand, since males are not as impacted, males might be able to separate the evaluation from their teaching. Thus, males may not change any of their course structure as they may believe their teaching techniques are appropriate and separate this from the evaluation. Again, this impacts how students may be learning in the classroom because a female or male faculty member could be utilizing dated pedagogical techniques but choose not to change their course structure simply because of their response to student evaluations. In conclusion, the literature surrounding gender differences among faculty is abundant and exemplifies how there are many issues that could be contributing to the differing pedagogical practices among faculty.

Citizenship and Ethnicity. Within the higher education system, the growth of international faculty members is not as widely researched (Mamiseishvili & Rosser, 2010). However, of the literature published on international faculty, most of it focuses on research productivity, work life issues, adjustment and/or personal isolation issues (Mamiseishvili & Rosser, 2010; Skachkova 2007; Thomas & Johnson 2004). There is a small body of literature that focuses on the teaching aspect of international faculty members in American institutions. For instance, Webber (2012) reported that foreign-born faculty members spent less time on undergraduate instruction than US-born peers because they spend and are assigned to spend more time on research. Similarly, Mamiseishvili and Rosser (2010) suggested that international faculty members were significantly more productive in research, but less productive in teaching and service than their U.S. citizen colleagues (p. 88). Teaching productivity was defined as hours interacting with students, classroom credit hours, and hours spent on teaching (Mamiseishvili & Rosser, 2010). Additionally, Mamiseishvili and Rosser contributed this finding to the possibilities that international faculty members feel as if they excel better at research and can receive the most recognition and rewards in this area. With this smaller body of literature focused on international faculty member's pedagogical practices, further research could be explored in this area to draw further conclusions.

In addition to the international demographic, a small body of research also suggests pedagogical practices are different among faculty member ethnicity and race. As an example, Nelson Laird et al. (2011) suggested, Asian and Pacific-islander faculty were more likely to lecture in the classroom, and that multiracial faculty were less likely to lecture when compared to white faculty. In the same study, African American, Hispanic/Latino, and Asian/Pacific-islander faculty were more likely to utilize active learning techniques in the classroom when compared to

white faculty (Nelson Laird et al., 2011). When comparing these findings to how students of different ethnicities and races learn, these research findings make sense as they are in alignment with student preferences. For example, active learning techniques benefited African-American (Eddy & Hogan, 2014) and Asian students (Bowden, Abhayawansa, & Manzin, 2015); as well as, students of different racial and ethnic backgrounds (other than white students) preferred and were likely to have higher learning gains from active learning classroom environments (Nelson Laird et al., 2011). In combining how students preferred to learn and how faculty choose to design and deliver the instruction in their classroom, these findings together make sense as to why these types of faculty utilize more of these types of pedagogical practices in the classroom.

Part-time/Full-time. According to the National Center for Education Statistics, “from the fall 1999 to fall 2016, the number of part-time faculty in degree-granting postsecondary institutions increased by 74%; and in the fall of 2016, of the 1.5 million total faculty, 53% were full-time and 47% were part-time” (NCES, 2019). Accordingly, the number of part-time faculty has risen dramatically over the past two decades. Various research supports the use of part-time faculty in American higher education; however, other research is a bit more critical and suggest that part-time faculty may not add as much value to the classroom. Researchers that are advocates for part-time faculty suggest that part-time faculty bring critical expertise, applied perspective, and real-world experiences into the classroom (Cowley, 2010; Puzziferro & Shelton, 2009; Jackson, Andrew, Halbomb, & Salamonson, 2011). In opposition, researchers that are critics state that part-time faculty are not fully invested in their teaching and students because of their competing priorities, do not interact with students, and are often, underpaid (Benjamin, 2015; Jaeger & Eagen, 2009).

Additional research has examined other matters concerning part-time faculty, including classroom differences in full-time and part-time faculty (Landrum, 2009), if part-time faculty stimulate student interest in a course (Bettinger & Long, 2010), and the impact of part-time faculty teaching an online course (Mueller, Mandernach, & Sanderson, 2013). Regarding classroom differences, Landrum (2009) conducted a study within the College of Social Sciences at Boise State University and “found no significant differences between faculty status (part time/full-time) and instruction type (in person, internet, or telecourse); number of credits per class; average number of students per class; course grade point average; or any teaching evaluations items (i.e. instructor’s presentations increased my knowledge on the subject matter, etc.)” (p. 25). However, Landrum did find significant differences in the years of experience teaching (full-time averaged 18 years; part time averaged 10 years), number of classes taught at the university (full-time averaged 2.26 classes and part time averaged 1.84 classes), and the amount of resources or support mechanisms provided to part-time faculty members. Expanding on the latter finding, an example of support mechanisms included that some part-time faculty did not have access to an office or an e-mail account. This lack of resources could greatly affect faculty’s pedagogical practices utilized and student learning as this could potentially decrease the amount of student-teacher interaction or questions facilitated by faculty. Cox et al. (2010) suggested that student-teacher interaction plays a major role in learning gains for students; and, if student-teacher interaction is reduced by the limited resources offered to part-time faculty, this could lead to decreases in student learning gains.

Furthermore, research has suggested part-time faculty spark interest in a subject matter (Bettinger & Long, 2010). Bettinger and Long suggested that students who were taught by part-time faculty were likely to induce more interest in a subject than those students who were taught

by full-time faculty, especially in the education and engineering fields. Suggestive reasoning by Bettinger and Long aligns with other research that part-time faculty are more likely to bring real-world expertise into the classroom (Cowley, 2010; Puzziferro & Shelton, 2009; Jackson, Andrew, Halbomb, & Salamonson, 2011). For example, part-time faculty may be able to share more detailed examples in the classroom and thus, potentially could spark more interest in the subject matter for the student. However, a drawback of the Bettinger and Long (2010) study was that student interest was measured by the whether the student took another course in that subject not a qualitative measure based on feedback from the students. Accordingly, these findings may be in part from the student solely enjoying the subject matter which was why the student took subsequent courses in that subject matter, not necessarily interest as sparked by the part-time faculty member. Similar in nature to this critique on these findings includes the study by Hoffmann and Oreopoulos (2009), where no evidence was found that contingent faculty (including part-time) either better or worsened a student's inspiration to take more classes in the subject.

Lastly, Mueller et al. (2013) conducted a study looking at the impact of part-time and full-time faculty on students enrolled in an online course. Mueller et al. suggested that students enrolled in the online class taught by full-time faculty members were more likely to successfully complete the course and "learn more." However, "learning more" was measured by the student's end of course grade. One could argue that a student does not necessarily "learn more" if they obtain an A versus a B at the end of the course. Nonetheless, combining these findings with the Landrum (2009) study, these findings could be a result of Landrum's research in that Landrum suggested that part-time faculty do not have access to adequate resources or training to teach students successfully. Part-time faculty members that do not have these resources may not be

aware of the most up-to-date teaching pedagogy or trained adequately to utilize their resources as best as possible. However, in considering all of the research discussed focused on part-time and full-time faculty, there are mixed findings in whether utilizing part-time faculty in American higher education is beneficial.

Rank/Tenure/Years of Experience/Age. In reviewing the body of literature focused on faculty rank, tenure, years of experience, and age, many research articles either examined one of these characteristics or a combination of a few of these faculty characteristics. For instance, Nelson Laird et al. (2011) and Figlio, Scharpiro, & Soter (2015) analyzed the relationships between tenure and pedagogical practices. Whereas, Carrell and West (2010) analyzed years of experience on student learning; and, Hoffman and Oreopoppulus (2009) analyzed rank and tenure on student outcomes. Many articles likely examined one or two of the characteristics due to the high correlation between some of the variables. For instance, a full professor is likely tenured with more years of experience. Therefore, since these characteristics are closely related, I grouped them into one sub-section and review what prior literature has suggested about how these variables may influence pedagogical practices and student learning.

To begin, Nelson Laird et al. (2011) suggested that faculty that are not yet tenured but on tenure-track are more likely to lecture in the classroom than those faculty that are tenured or not on tenure-track. Nelson Laird et al. suggested this could be due from the fact that tenure-track faculty are under lots of pressure to publish in highly ranked journals to obtain tenure and are more likely focused on research than effective pedagogical practices. Since not yet tenured, but on tenure-track faculty are more likely to be focused on research, this does not leave a lot of preparation time for them to understand and explore appropriate teaching pedagogy and student-centered learning techniques to incorporate into their classroom environments. This impacts

student learning because if a student has higher learning gains from an active learning environment (Freeman, Eddy, McDonough, Smith, Okoroafor, Jordt, & Wenderoth, 2014), students would not learn as much if they took a course with faculty member on tenure track (since they tend to lecture more). In addition, Nelson Laird et al. (2011) also suggested that non-tenure track faculty are likely to lecture less and engage in more active classroom activities than their tenure-track and tenured faculty counterparts. Reasons for this parallel to the above, as tenure-track and tenured faculty are more likely to be focused on research than teaching pedagogy.

An additional study analyzing relationships between non-tenured and tenured faculty on student learning gains was conducted by Figlio et al. (2015). Figlio et al. researched first-time freshman at Northwestern University and suggested that students who took courses from non-tenured faculty were likely to “learn more” in subsequent courses than those students who took courses from tenured track/tenured faculty. Learning more was defined by the grade received at the end of the course. As mentioned above, end of course grades is not always the best representation of learning more. Also, this finding is a bit misleading because in the discussion, Figlio et al. discussed how they expanded the research to understand if this finding was across the entire spectrum of faculty or if this finding was mainly driven by the extremes. The answer was the latter (the finding was driven by the extremes). To expand on this, the findings stated that most students in non-tenure track faculty classrooms performed the same as students in tenure-track/tenured faculty classrooms, but that the worst tenure-track/tenured faculty performed considerably worse than the non-tenure track faculty (which is what led to their final conclusion). This is important to consider as while most students performed the same in both sets of classrooms, the question remains of why the worst tenure-track/tenured faculty perform

considerably worse than the non-tenure track faculty. Figlio et al. suggested that this may be because the “worst” tenure-track/tenured faculty are kept on staff because of their research abilities, or they are tenured and have experienced burnout but do not care anymore. Thus, for those students enrolled in a classroom with the “worst” tenure-track/tenured faculty member, these students may not receive as effective pedagogical practices and experience lower learning gains.

Related to but slightly different, Carrell and West (2010) examined how years of experience may affect student learning. Carrell and West suggested that students enrolled in courses with faculty that have *less* years of teaching experience learn more (obtain higher grades) in the current course than in subsequent courses in the same subject matter. The reverse was also true, that students enrolled in courses with faculty that have *more* years of teaching experience learn more (obtain higher grades) in subsequent courses. A few reasons were suggested as to why these findings were found. First, faculty members with *less* years of experience may adhere more to the curriculum than those faculty members with *more* years of experience. Therefore, faculty members with *more* years of experience are more likely to expand on the curriculum and encourage students to engage in deeper learning experiences, which ultimately may improve studying habits, learning gains, and potentially grades in subsequent courses. Second, faculty members with *less* years of experience are more likely to “teach to the test.” This may lead to poor studying habits and may affect the learning gains or grades in subsequent courses. Overall, based on this small body of literature discussed on thus far, students may receive less lecture style-based classroom settings and more student-centered pedagogical practices from non-tenure track faculty and faculty with more years of experience.

Additionally, prior literature has varied in the relationships found between faculty age and teaching/pedagogical practices. For example, older literature suggested an inverse relationship between a faculty member's student rated performance and age (Horner, Murray, & Rushton, 1989; Renaud & Murray, 1996). However, more recently, the literature finds that older faculty members received more negative ratings on perceptions of friendliness and rapport (Joye & Wilson, 2015; Wilson, Beyer, and Monteiro, 2014).

In opposition to all of the above, there is yet another body of literature that finds no significant differences in rank, tenure, or years of experience on student learning gains, outcomes, or evaluations. For example, Marsh (2007) suggested there was little evidence that faculty became either more or less effective with added experience. Adding to this, Kogan et al. (2010) and Hoffman and Oreopoppulus (2011) both suggested that rank, faculty status, salary status, or tenure did not have a significant effect on students learning.

In concluding on all the faculty demographics and characteristics discussed in this section, there are a variety of findings suggesting differing associations between demographics, pedagogical practices, and student learning. Even though mixed findings were suggested among the literature, there are a few trends. The first trend is that female faculty, faculty of different races and ethnicities (non-white), and non-tenure track faculty are more likely to utilize student-centered pedagogical practices in the classroom (i.e. lecturing less and more active classroom activities). The second trend is that while part-time faculty may be able to bring in applied perspective and real-world experiences into the classroom, they also may not have access to adequate resources or training to teach students successfully. However, publication bias should also be taken into consideration when reviewing the literature as more articles are more likely to be published that find differences than those articles that did not find differences.

Discipline and Institution Characteristics

While the literature examined up until this point focused on specific faculty demographics and characteristics that may be associated with pedagogical practices utilized in the classroom; another important area of consideration when analyzing faculty pedagogy is the course, discipline and institution in which the faculty member teaches. There are multiple classifications of institution types, thus, may influence curriculum building. Umbach and Wawrzynski (2005) stated that, “faculty members at liberal arts colleges, on average, interacted more with students, challenged students academically, used active and collaborative learning exercises, and believed enriching educational activities are important” (p. 171). Additionally, private institutions challenged their students more than public institutions (Umbach & Wawrzynski, 2005). However, regardless of the institution type, all institutions offer a variety of disciplines within varying departments. With this, many faculty members undertake pedagogical practices in context within the discipline they are trained or otherwise stated, “course planning is closely embedded in the disciplines and educational beliefs to which faculty members have been socialized” (Stark, 2000, p. 430). Other researchers agree that academic fields do affect a faculty member thought process when planning and designing course instruction and curriculum (Lattuca & Stark, 2011). This should be kept in mind when attempting to understand the differences in faculty pedagogical practices in various departments and disciplines.

Both departments and disciplines help bring organizational stability. Researchers who are proponents of departments state that the use of departments allows opportunities for flexibility and emergence of new ideas, thoughts, and research into institutions (Diner, 1975). Departments have a part in the contribution to the existence of academic disciplines (Diner, 1975) and discipline identities are understood and realized by degree-granting bodies, such as departments

(Stehr & Weingart, 2000). Moreover, “departmental practices and cultural assumptions may be shaped by disciplinary norms and practices and by the nature of research and scholarship in the discipline” (Golde, 2005, p. 671). Even more specific, Stehr and Weingart (2000) state,

departments corresponding to disciplines have a long history in universities, and they represent, with some quite interesting national differences, a more or less standard worldwide organizational form; consequently, the disciplines they represent make for a quite different kind of collectivity, with more or less standardized collective interests that more or less correspond to the common intellectual interest and instructional tasks of a group of academics (p. 46).

Department and discipline alignment can vary based on the specific institution. For example, accounting is the discipline that could be said to be the product of a business department; or, even further, auditing, taxation, or accounting systems are the disciplines that could be said to be the product of an accounting department. Therefore, it is important to keep this in mind that both department and disciplinary norms may affect how faculty design and deliver their classroom curriculum.

In examining the literature on department and disciplinary differences, researchers use a variety of classifications that attempt to categorize disciplinary fields into various organizational structures. As examples, Hagstrom (1964) based disciplinary organization on disciplinary consensus, Hargens (1975) based disciplinary organization on normative and functional integration, Zuckerman and Merton (1971) based disciplinary organization on disciplinary codification, Lodahl and Gordon (1972) based disciplinary organization on levels of paradigm development, Biglan (1973) based disciplinary organization on three dimensions (hard/soft, pure/applied, life/nonlife), and Holland (1997)/Smart et al. (2000) based disciplinary

organization on personality schema/career choice. However, the following literature reviewed in this paper that discusses faculty pedagogical practices utilizes the most recent two classifications: Biglan (1973) and Holland (1997).

Biglan's (1973) classifications of discipline is based on three dimensions: hard/soft, pure/applied, and life/non-life. Within each dimension, there are differences among faculty pedagogy practices. Examples of disciplines within each dimension include the following:

- First dimension:
 - Hard: hard sciences/engineering
 - Soft: social sciences/business
- Second dimension:
 - Pure: hard sciences
 - Applied: engineering
- Third dimension:
 - Life: hard sciences/social sciences
 - Non-life: engineering/business

In reviewing the literature focused around the first dimension of Biglan's (1973) classification (hard/soft), faculty in soft disciplines were found to be more likely to use student-centered approaches to teaching (Lindblom-Ylänne, Trigwell, Nevgi, & Ashwin, 2006; Nelson Laird et al., 2011), use active learning techniques (Braxton, Olsen, & Simmons, 1998), emphasize deep learning techniques (Nelson Laird et al., 2008b), value diversity, have contact with students, and have higher expectations of students (Braxton et al., 1998). However, Braxton et al. (1998) did find that faculty in soft fields were no more likely than faculty in hard fields to provide prompt feedback, encourage cooperation among students, and emphasize time on task.

Similarly, other research has suggested that instructors from hard disciplines were more likely to report a more teacher focused approach to teaching (Lueddeke, 2003; Trigwell, 2002; Lindblom- Ylänne et al., 2006) and spend more time during class lecturing than instructors in the soft fields (Nelson Laird et al., 2011). Specifically, hard disciplines, on average, devoted 10% less class time to active classroom practices than those faculty in soft disciplines (Nelson Laird et al., 2011). Additionally, Barnes, Bull, Campbell, & Perry (2001) suggested that faculty in hard fields were also more likely to select “subject matter facts and principles” as their primary teaching goal; while, faculty in soft fields were more likely to select “student development” as their primary teaching goal. These findings support the idea, “that faculty in different fields tend to have different beliefs about teaching” (Barnes et al., 2001).

In alignment, Lindblom-Ylänne et al. (2006) suggested that faculty members that taught a course in the hard disciplines scored higher on the information-transfer, teacher-centered survey; while, faculty members that taught a course in the soft disciplines scored higher on the student-centered focused survey. Expanding on this, Lindblom-Ylänne et al. suggested that faculty in the hard disciplines also reported that they lectured more in class than those in the soft disciplines. This finding makes sense as those in the hard disciplines scored higher on the *information-transfer*, teacher-centered survey (information transfer aligning with the pedagogical practice of lecturing). To provide an example of this, chemistry and biology would be considered hard disciplines and since these classes are usually rather large, a typical class session would likely include only lecture (versus more hands-on, active learning activities and discussions). On the other hand, faculty who taught courses in soft disciplines (i.e., social sciences) were less likely to lecture and more likely to have discussion-based courses. In addition to these findings, significant differences were only found for the hard/soft classifications, significant differences

were not found for the sub-classifications of pure/applied and life/non-life majors (Lindblom-Ylänne, 2006).

However, other research has found significant differences in the second and third dimensions of Biglan's (1973) classification, pure/applied and life/non-life. Nelson Laird et al. (2011) suggested that faculty in the applied fields lectured more of the time than their pure field colleagues, and that faculty in life fields lectured more than faculty in non-life fields. Moreover, faculty members in pure and applied fields devoted about the same percentage of time to active classroom practices, but non-life disciplines devoted slightly more time to active practices than their life colleagues (Nelson Laird et al., 2011).

Other research that utilized Holland's (1997) theory of discipline classification also found pedagogical practices differed among faculty disciplines. The Holland (1997) theory described six personality traits (enterprising, artistic, social, investigative, realistic, and conventional) and categorized disciplines into these six different environments (or personality traits). Prior research suggests that in most situations, students tend to gravitate towards disciplines that are compatible with their personality traits, which is why the disciplines were categorized in these six classifications (Holland, 1997; Jones, 2011; Smart, Feldman, & Ethington, 2000). Examples of disciplines included within the six environments include the following:

- Enterprising: Business
- Artistic: Art/music
- Social: Education/history
- Investigative: Engineering/hard sciences
- Realistic: Forestry/mechanical engineering
- Conventional: Accounting/finance

Within the first four environments (enterprising, artistic, social, investigative), Smart and Thompson (2001) suggested that faculty members were similar in the fact that they were more likely to reward students who mastered the skill sets valued by that faculty member. For example, faculty in investigative environments placed greater emphasis and rewards on student development of competencies involving mathematical, analytical, and scientific skills.

In examining Biglan (1973) and Holland (1997) together in relationship to the accounting discipline, accounting is classified as a soft, applied, non-life discipline according to Biglan's (1973) classification and an enterprising or conventional classification according to Holland's (1997) classification. Based on the above literature, faculty in the soft disciplines are less likely to lecture and more likely to utilize student-centered pedagogical practices. However, faculty in applied and life disciplines lecture more than the pure and non-life counterparts. Since accounting is considered a soft, applied, and non-life discipline, this could potentially mean that a lecture style classroom and student-centered pedagogical practices may be mixed depending on the specific accounting course and faculty member. Subsequently, regarding the Holland (1997) classification, accounting is classified within the enterprising or conventional environments. According to the literature, this would indicate that accounting faculty design and structure their course to help students acquire work-related skills and emphasize understanding people over analyzing data. However, many would argue against the latter conclusion as analyzing data is a mainstream objective for the accounting discipline (Janvrin & Watson, 2017).

Therefore, to better understand more specifics about accounting faculty and their pedagogical practices it is best to examine literature that analyzes accounting faculty and students versus attempting to draw conclusions based on discipline classifications schemata. Therefore, in the next section, I briefly provide a conceptual understanding of the different types

of faculty pedagogical practices that promote higher order learning and then how this relates to accounting faculty and students.

Faculty Pedagogical Practices

Understanding pedagogy is important because faculty's pedagogy has a direct impact on the student learning process (Gagné & Newell, 1970; Vygotsky, 1964). Faculty choose to utilize certain pedagogical practices within the classroom for a variety of reasons. When trying to understand the reasons behind why certain practices are chosen and why faculty teach the way they do, Menges (2000) stated there is a lack of research in this area. As mentioned in the previous section, some faculty may choose to utilize certain pedagogical practices due to the discipline in which they have been trained (Stark, 2000), or faculty may choose to utilize certain pedagogical practices based on personal values and/or experiences. Thus, it is hard to generalize why faculty may choose certain practices over others because reasons could vary drastically. However, it is important to continue to try and understand more about the practices that faculty decide to utilize because of the direct impact on the student learning process (Vygotsky, 1964; Gagné & Newell, 1970).

Since generalizations on why faculty teach the way they do is harder to obtain, researchers have attempted a better understanding on specific faculty members' approach to their teaching. To that end, Drew (2000) suggested a hierarchy of five different conceptions of teaching approaches that build upon each other. The conceptions are listed below and include conception A, B, C, D, and E. Conception A is incorporated into conception B, conceptions A and B incorporated into conception C, and so on from there.

- Conception A: Teaching is offering students a range of practical and technical skills
- Conception B: Teaching is developing students' practice and technical skills

- Conception C: Teaching is developing students' critical, practical, and technical skills through student interaction
- Conception D: Teaching is developing students' skills and conceptions in the context of professional practice
- Conception E: Teaching is helping students change conceptions (Drew, 2000)

Drew argues that by moving from conception A to conception E, the student-centeredness of the pedagogy increases; however, other researchers argue differently, stating that only a few of the conceptions are student-centered (Trigwell, Prosser, & Taylor, 1994). This argument even insinuates that researchers may define student-centered pedagogy differently. Even though student-centered pedagogy may have a variety of definitions, at its core, student-centered pedagogy puts the student at the center of the classroom, and the faculty member as the guide (versus the sage on the stage) to encourage students to engage deeper with the material they are learning.

Student-centered pedagogy is not a new concept to higher education as earlier researchers agreed that students should be the center of the teaching and learning process (Barr & Tagg, 1995; Bonwell & Eison, 1991; King, 1993; Weimer, 2002). This type of pedagogy is important for students as these types of practices enhance student's engagement with deep learning (Baeten, Struyven, Dochy, 2013; Mayer, 2004), provide a more effective learning environment, and build critical thinking, analytical, and higher order learning skills (Wright, 2011). In addition to the term, "student centered pedagogy," another term, "active learning" is also used in the literature to describe similar pedagogy and sometimes even synonymously. In attempting to define active learning, many researchers suggested that the student is engaged in the classroom more so than just listening (Prince, 2004), and suggested that active learning builds analytical

and critical thinking skills (Astin, 1993; Kuh, Pace, & Vesper, 1997; Pascarella & Terenzini, 1991). More recent research, Grabinger and Dunlap (2016) suggested that active learning environments encompass the following:

evolve from and are consistent with constructivist philosophies and theories; promote study and investigation within authentic contexts; encourage the growth of student responsibility, initiative, decision-making, and intentional learning; cultivate an atmosphere of knowledge-building learning communities that utilize collaborative learning among students and teachers; and utilize dynamic, interdisciplinary, generative learning activities that promote high-level thinking processes (i.e., analysis, synthesis, problem-solving, experimentation, creativity, and examination of topics from multiple perspectives) to help students integrate new knowledge with old knowledge and thereby create rich and complex knowledge structures (p. 10).

The last piece of the definition utilizing the exact terminology defined in earlier sections as higher order learning. Thus, student-centered pedagogy, active learning, and higher-order learning all having many similarities, and at the heart of these specific terms is the goal of enhancing the student learning process.

When faculty enhance student learning (utilize student-centered pedagogy, active learning environments), the likelihood of student's higher order learning skills increases. Therefore, it is important to understand what specific pedagogical practices are utilized within student-centered pedagogy and active learning environments. There is an immense range of pedagogical practices that researchers have attempted to explore and understand the relationship to higher order learning. Older literature suggested broader pedagogical practices promote higher order learning such as student interaction in classroom (Smith, 1977), faculty interactions in and

out of the classroom (Pascarella & Terenzini, 1991; Terenzini, Springer, Pascarella, & Nora, 1995), faculty praise and encouragement (Smith, 1977), collaborative learning (Pascarella & Terenzini, 1991; Terenzini et al., 1995) and instructor feedback (Cabrera, Colbeck, & Terenzini, 2001; McKeachie, 1990). As mentioned previously, recent literature suggests more specific pedagogical practices that enhance higher order learning, including the incorporation of discussion in the class (Szabo & Schwartz, 2011; Tsui, 2002), working in groups (Gordon & Debus, 2002; Hall, Ramsay, & Raven, 2004; Murphy, Firetto, Wei, Li, & Croninger, 2016; Tsui, 1999), students giving class presentations (Astin, 1993; Shim & Walczak, 2012), conducting independent work (Gonyea, et al., 2010; Tsui, 2002), writing papers (Gordon & Debus, 2002; English, Luckett, and Mladenovic, 2004; English, Bonanno, Ihnatko, Webb, and Jones, 1999; Tsui, 2002), taking essay exams (Tsui, 1999), experiential activities such as labs and field work (Sandi-Urena, Cooper, & Stevens, 2012), asking challenging questions (Shim & Walczak, 2012), critiquing work (Astin, 1993; Owens, 2007; Tsui, 1999), and problem-based learning (Gordon & Debus, 2002). In opposition, pedagogical practices such as lecture and multiple-choice exams were negatively related to the increase in student's higher order learning (Celuch & Slama, 1999; Diaz-Lefebvre, 2004; Janssens, 2010; Nam-Hwa & Howren, 2004; Struyven, Dochy, Tsui, 1999;). Concluding that with this immense amount of literature there is a range of pedagogical practices that can be utilized to enhance student's higher order learning.

Accounting Faculty. Within a student's higher education studies, all students are expected to learn complex material while developing opinions on various subject matter, and thus, engage in higher order learning to increase these skill sets. Specific to accounting students, prior research suggests that accounting students tend to engage less in deep or higher order learning than other students (Arquero et al., 2015; Booth, et al., 1999; Duff, 1996; Eley, 1992;

Gow et al.,1994; & Nelson Laird et al., 2005a, 2008b), and that faculty play a part as to why this may be the case for students (Booth, et al., 1999; Eley, 1992; Gow et al., 1994, & Nelson Laird et al., 2005a, 2008b). Collectively, these scholars purport that faculty members must be aware of the influential position they are in as allowing students to engage with higher order learning is important for both accounting students and the profession. As innovations continue bring about new technologies, accounting students will need to have higher cognitive abilities to partner with these technologies, so continued improvement on higher order learning skill sets is important for students. Therefore, the following sections focus on accounting faculty, accounting faculty pedagogical practices, and the emphasis that accounting faculty place in the classroom on higher order learning.

Over the past twenty years, there has been a handful of published studies that focus specifically on accounting faculty pedagogy, but within the past five to ten years, there is a limited number of published studies available. While earlier literature suggested mixed evidence as to whether accounting faculty integrate higher order learning in their instruction, more recent literature within the past five to ten years, suggest that accounting faculty are moving towards promoting more higher order learning pedagogical practices in their curriculum instruction (Buckless et al., 2014; Carenys & Moya; 2016; Dockter, 2012; Phillips & Graeff, 2014). In more detail, Dockter (2012) provided a review on the current techniques being utilized by accounting faculty, stating that faculty were starting to integrate more “problem-based learning exercises, case studies, simulations, and other projects to help students become more active versus passive learners” (p. 547). Phillips and Graeff (2014) stated that utilizing in-class simulation techniques promoted a deeper learning environment for students, while Buckless et al. (2014) stated these techniques increased critical thinking and group work skills. Even further, Carenys and Moya

(2016) provided a literature review of a different pedagogical practice, game-based learning, utilized in the business and accounting classrooms. Carenys and Moya stated that the incorporation of this pedagogical technique promoted high satisfaction levels, development in group work, and improved understanding of accounting. However, within this body of literature little is known about the characteristics of the faculty choosing to implement these practices or why accounting faculty decided to implement these practices.

In addition to these studies and more recently, Chen (2017) published a detailed literature review focused on faculty teaching approaches in introductory accounting, management accounting, and internal auditing courses. Within Chen's literature review, all 15 articles discussed were published between 2001 – 2006, with no articles published after 2006. One of the fifteen articles discussed the specific demographics or characteristics of accounting faculty. The article stated that one experimental case study was conducted across five courses, all taught by experienced tenured faculty (Murdoch & Guy, 2002). Murdoch and Guy concluded by suggesting that even when active learning environments are incorporated into an introductory accounting classroom environment, students in smaller class sizes scored significantly higher on analytical problem and essay-based exams. The remaining articles within Chen's literature review focused on discussion about faculty implementation techniques of various pedagogical practices in the accounting classroom, including techniques that promoted problem solving skills (Edmonds, Edmonds, & Mulig, 2003; Halabi, Tuovinen, & Farley, 2005; Kennedy & Sorensen, 2006; Kern, 2002; Maher, 2000; Milne & McConnell, 2001), benefits of group or cooperative-based learning (Crudnitski, 2000; Lancaster & Strand, 2001; Milne & McConnell, 2001; Murdoch & Guy, 2002), impact of case based approaches (Van Den Brink, Kokke, de Loo, Nederlof, & Verstegen, 2003), impact of gaming (Hoffjan, 2005), changing traditional

assessment methods (Aisbitt & Sangster, 2005; Cornick, Bhamornsiri, & Malmgren, 2003), and immediate feedback to assignments (Stuart, 2004).

Subsequently, Apostolou, Dorminey, Hassall, & Rebele (2016) performed a broader literature review analyzing trends in accounting education journals (*Journal of Accounting Education, Accounting Education, Advances in Accounting Education: Teaching and Curriculum Innovations, Global Perspectives on Accounting Education, Issues in Accounting Education, and The Accounting Educators' Journal*) and special themed issues from 1997 – 2016. In the special themed issue review, 34 articles (29%)¹ of the 117 articles were classified as articles on teaching in accounting, while the other articles were strictly about accounting research, job market, or administration issues. However, within the accounting education journal literature review, approximately 695 articles (34%)² of the 2,023 accounting education journal articles were empirical articles classified as either discussing one of the following categories: curricular issues, instructional content, educational technology, students, and faculty. Approximately, 117 articles (6%)² focused on faculty, and 196 articles (9%)² focused on curricular issues. Within the curricular issues' category, 73 articles (4%)² focused on the sub-category of instructional approaches. Of the articles published on instructional approaches, there was a 52% increase in the articles published between the two ten-year periods, 1996 through 2006 and 2007 through 2016, but within the 73 total articles published overall, only 17 articles (0.1%)² were published within the most recent five-year period (2012 – 2016). All of this to conclude that there is a very limited number of articles published focusing on accounting instructional approaches.

¹ Percentages are provided as of the total number of special themed articles reviewed from 1997-2016, which is 117 articles.

² Percentages are provided as of the total number of articles reviewed from 1997-2016, which is 2,023 articles.

Expanding on this literature review, Apostolou, Dorminey, Hassall, & Rebele (2017) and Apostolou, Doriney, Hassall, & Rebele (2018) extended the review to include the years, 2017 and 2018. In 2017, 107 journal articles were reviewed, in which 8 articles (7%)³ focused on faculty, and 20 articles (19%)³ focused on curriculum and instruction. None of the articles classified within the faculty category discussed relationships between accounting faculty characteristics and pedagogical practices. However, within the curriculum and instruction category, 7 articles (6.5%)³ focused on instructional approaches (Adelopo, Asante, Dart, & Rufai, 2017; Bay & Pacharn, 2017; Blankley, Kerr, & Wiggins, 2017; Huber, Law, & Khallaf, 2017; Riley & Ward, 2017; Tucker, 2017). Only 3 articles (0.3%)³ focused specifically on accounting students and faculty in the United States (Riley & Ward, 2017; Blankley et al., 2017; Huber et al., 2017). Expanding on the details of the articles, Adelopo et al. (2017) discussed how essay writing may help build higher order learning skills. Bay and Pacharn (2017) focused on advantages and disadvantages to the pedagogical practice of group assessment techniques. Riley and Ward (2017) discussed how individual active learning can produce higher learning gains than grouped active learning or passive lecture pedagogical practices. Huber et al. (2017) focused on the benefits of using three active learning techniques (interviews, writing, and analysis case study) in a financial accounting course. Tucker (2017) discussed how graduate students in an MBA program benefit from using analogy-based learning. Blankley et al. (2017) surveyed faculty about active learning pedagogy and suggested that half of accounting faculty class time is dedicated to lecture (or similar delivery), and a third was dedicated to active learning methods, with the remaining on assessment. Graduate courses were also more likely to

³ Percentages are provided as of the total number of journal articles reviewed in 2017, which is 107 articles.

utilize group work, case materials, and student presentations (Blankley et al., 2017). However, only one article (Blankley et al., 2017) described the relationships between faculty characteristics and pedagogical approaches. For example, Blankley et al. suggested that more experienced faculty (faculty classified as more than 20 years of experience) used less in-class time for students to work problems and implemented fewer small group activities and provided no suggestions on why this might be the case.

Even further, Apostolou, Dorminey, Hassall, & Rebele (2019) expanded the review to include the year 2018 with the focus on accounting education trends in the same journals, *Journal of Accounting Education*, *Accounting Education*, *Advances in Accounting Education: Teaching and Curriculum Innovations*, *Issues in Accounting Education*, and *The Accounting Educators' Journal*. In 2018, 101 articles were reviewed, in which 20 articles (20%)⁴ focused on faculty and 23 articles (23%)⁴ focused on curriculum and instruction. Similar to the 2017 review, none of the articles classified within the faculty category discussed relationships between accounting faculty characteristics and pedagogical practices. Specifically, three articles focused on research, six articles on teaching, 10 on faculty reflections on their academic career, and one article about faculty credentials. The six articles on teaching focused on student evaluation scores for non-native English-speaking faculty, availability of publisher test banks on exam performance, doctoral-level research reading groups, faculty perceptions of academic dishonesty, PhD oral dissertation defenses, and relevancy of introductory textbooks. However, within the curriculum and instruction category, eight articles (8%)⁴ focused on curriculum issues and eight articles (8%)⁴ focused on instructional approaches. In the eight articles focused on curriculum

³ Percentages are provided as of the total number of journal articles reviewed in 2017, which is 107 articles.

⁴ Percentages are provided as of the total number of journal articles reviewed in 2018, which is 101 articles.

⁴ Percentages are provided as of the total number of journal articles reviewed in 2018, which is 101 articles.

issues, the following was suggested. Fogarty (2018) wrote a short three-page response iterating the information from Pincus, Stout, Sorensen, Stocks, & Lawson (2017). Pincus et al. (2017) provided a high-level overview regarding the forces of change in higher education and explicitly state that advances in technology have “not significantly changed either what we teach (curriculum) or how we teach (pedagogy)” (p.1). Dzurainin, Jones, & Olvera (2018) surveyed faculty about the implementation of data analytics in the classroom, in which most of the faculty agreed that the accounting curriculum should enable students to answer questions using data and focus on developing critical thinking skills. Pelzer and DeLaurell (2019) focused on the implementation of AACSB standard A7 (implementing data analytics into the curriculum). However, the remaining articles focused on graduate perceptions of data analytics use in practice (Brink & Stoel, 2019), 10 PhD faculty perceptions of technology (Al-Htaybat, von Alberti-Alhtaybat, & Alhatabat, 2018), value of a certificate program (Eames, Luttman, & Parker, 2018), and impact of CPA exam changes (Freeman, 2018; Kulesza & Weaver, 2018).

Subsequently, within the eight articles focused on instructional approaches (in the broader curriculum and instruction category), two articles (2%)⁴ focused on researchers’ perspectives on instructional approaches and the other six articles (6%)⁵ focused on accounting students and faculty outside of the United States. The other six articles did discuss similar trends as seen in the 2017 literature review, that various pedagogical practices focused on enhancing active and higher order learning promote student learning gains (Erasmus & Fourie, 2018; Opdecam & Everaert, 2018; Osgerby, Marriott, & Gee, 2018; Sithole, 2018; Taylor, Marrone, Tayar, & Mueller, 2018; Vandrzyk & Bagranoff, 2018; Wynder, 2018; Wyness & Dalton, 2018).

⁴ Percentages are provided as of the total number of journal articles reviewed in 2018, which is 101 articles.

Also similar in nature, there were limited articles reviewed in the curriculum and instruction category (one article in 2017 and zero in 2018) that discussed relationships between accounting faculty characteristics and pedagogical practices. Concluding that there is much more to learn about the relationships between accounting faculty characteristics and pedagogical practices; as well as, other reasons as to why accounting faculty teach the way they do.

Therefore, based on the above theory, models, and prior literature, I anticipate that significant relationships will exist between some faculty characteristics and pedagogical practices as well as course characteristics and pedagogical practices. I anticipate that other factors shared in the qualitative interview analysis will also provide additional context into why certain faculty or the specific course type might influence faculty the most. In addition, I anticipate that accounting faculty are also not utilizing pedagogical practices that are more apt to emphasize higher order learning as much as they may think in the classroom and for those that believe they are emphasizing these skill sets, faculty may lack full understanding of how to emphasize these skill sets based on their examples of techniques provided.

CHAPTER 3

DATA AND METHODOLOGY

In this chapter, I provide details on the data and methodology employed in this research study. I first review the research questions then discuss the underlying data, data source, and provide descriptive statistics. Lastly, I discuss the methodology utilized for each research question and address the limitations of the study.

Research Questions and Data

Research Questions

Creswell (2017) suggests studies that aim to understand relationships between variables, particularly variables gathered through surveys in social science research, are best answered through quantitative research questions. However, where the quantitative data falls short in understanding the research questions, qualitative data is collected to provide additional insight.

The research questions in this study aim to understand what factors are associated with the pedagogical practices used by accounting faculty in the accounting classroom, do accounting faculty utilize pedagogical practices that expose students to higher order skills; and if so, how are accounting faculty emphasizing these practices in their accounting classroom? To address this, a mixed methods approach is used, and the following research questions are addressed:

1. What factors (individual, course, or institutional characteristics) are associated with pedagogical practices used by accounting faculty in the accounting classroom?
2. What do accounting faculty describe as the reasons for choosing certain pedagogical practices in the accounting classroom?

3. Do accounting faculty utilize pedagogical practices that emphasize higher order learning in the accounting classroom?
 - a. For those accounting faculty choosing to utilize pedagogical practices that emphasize higher order learning in the accounting classroom, how are faculty implementing these types of practices?

Data

To answer research question one, I utilize FSSE quantitative data; whereas, to answer the remaining research questions, I utilize data collected from qualitative interviews. Within this sub-section, I discuss the underlying data, data source, and provide descriptive statistics. Furthermore, I provide detailed information on the psychometric portfolio of the FSSE data (details on validity, reliability, and other indicators of the quality of the data) and information on the qualitative sample selection.

FSSE Data Source. The survey data utilized to answer research question1 was collected from the *Faculty Survey of Student Engagement* that is housed at the Indiana University Center for Postsecondary Research (IUCPR). The IUCPR projects include the *National Survey of Student Engagement* (NSSE), the *Faculty Survey of Student Engagement* (FSSE), the *Beginning College Survey of Student Engagement* (BCSSE), the *Law School Survey of Student Engagement* (LSSSE), and the *Strategic National Arts Alumni Project* (SNAAP). The data from all surveys is made available to researchers on a limited basis from IUCPR; however, only data from the FSSE survey was utilized for this research study. The FSSE data was used with permission from IUCPR. In addition, the data is only made available with a signed data sharing agreement that requires the data be at least two years old (i.e., FSSE data from the 2017 administrations is made available in August of 2019) and all data excludes the School Unit Identification code from the

Integrated Postsecondary Educational Data System (IPEDS) or any other unique school or personal identifier.

The FSSE survey was designed to complement the NSSE survey and “to measure instructional staff expectations regarding the extent to which students at institutions engage in educational practices empirically linked to high levels of learning and development” (FSSE, 2019). FSSE is a web-based survey that is administered in the spring “nationally to faculty, instructors, and graduate students who teach at baccalaureate degree-granting colleges and universities that are concurrently administering the NSSE survey or have participated in the NSSE survey in the previous year” (FSSE, 2019). To determine participants for the survey, every institution that participates “selects its own sample of instructional staff who teach at least one undergraduate course in the current academic year” (FSSE, 2019). The remaining survey administration details are handled by IUCPR once those participants have been notified by their respective institution. Since 2003, more than 250,000 instructional staff from more than 800 institutions have participated in the FSSE survey (FSSE, 2019). In the past five years (2015 – 2019), there has been an average of 127 United States (US) institutions that have participated in the FSSE survey each year (133 institutions in 2015, 119 institutions in 2016, 154 institutions in 2017, 112 institutions in 2018, and 119 institutions in 2019). For purposes of this research study, only data from the 2015, 2016, and 2017 surveys is utilized per the IUCPR data sharing agreement. Descriptive statistics of all institutional and faculty characteristics responding to the 2015 – 2017 surveys can be found in Table 3.1 and Table 3.2, respectively. The profile of institutions and faculty members responding to the FSSE survey “is similar in many ways to the profile of institutions and instructional faculty at U.S. bachelor’s-granting colleges and universities (based on the National Center for Education Statistics and U.S. Bureau of Labor

Statistics), while differing in only a few respects” (FSSE, 2017). Although only slight differences exist between these profiles, “the distribution of FSSE institutions reflects a wide range of U.S. institutions, which helps ensure that FSSE results represent a broad cross section of U.S. faculty members” (FSSE, 2017). Specific to this study, there is a similar representation of business faculty that responded to the survey (10%, 11%, and 11% of faculty in 2015, 2016, and 2017, respectively) compared to the national average of business faculty at U.S. bachelor’s-granting colleges and universities (8% in 2015, 2016, and 2017, respectively).

Table 3.1

FSSE Institutional Descriptive Statistics

| Institutional Characteristics | 2015 (113 institutions) | 2016 (119 institutions) | 2017 (154 institutions) |
|---|-------------------------------|-------------------------------|-------------------------------|
| Carnegie Classification | % | % | % |
| Doctoral Universities (Highest Research Activity) | 5 | 2 | 3 |
| Doctoral Universities (Higher Research Activity) | 7 | 4 | 8 |
| Doctoral Universities (Moderate Research Activity) | 5 | 9 | 12 |
| Master’s Colleges and Universities (larger programs) | 32 | 34 | 27 |
| Master’s Colleges and Universities (medium programs) | 13 | 13 | 13 |
| Master’s Colleges and Universities (smaller programs) | 8 | 9 | 8 |
| Baccalaureate Colleges–Arts & Sciences | 12 | 11 | 12 |
| Baccalaureate Colleges–Diverse Fields | 19 | 19 | 16 |
| Public | 48 | 46 | 53 |
| Private | 52 | 54 | 48 |
| Undergraduate Enrollment | | | |
| Fewer than 1,000 | 13 | 16 | 16 |
| 1,000 –2,499 | 27 | 30 | 25 |
| 2,500 –4,999 | 20 | 21 | 16 |
| 5,000 –9,999 | 23 | 26 | 24 |
| 10,000 –19,999 | 16 | 6 | 12 |
| 20,000 or more | 2 | 1 | 8 |

Table 3.2

FSSE Faculty Descriptive Statistics

| Faculty Characteristics | 2015 (19,056 faculty) | 2016 (14,512 faculty) | 2017 (24,418 faculty) |
|--|--------------------------|--------------------------|--------------------------|
| | % | % | % |
| Male | 49 | 45 | 47 |
| Female | 51 | 50 | 48 |
| Full-time | 80 | 82 | 77 |
| Part-time | 20 | 18 | 23 |
| Race | | | |
| American Indian or Alaska Native | 1 | <1 | <1 |
| Asian | 5 | 4 | 6 |
| Black or African American | 5 | 6 | 6 |
| Hispanic or Latino | 3 | 4 | 4 |
| Native Hawaiian or other Pacific Islander | <1 | <1 | <1 |
| White | 72 | 72 | 70 |
| Multiracial | 3 | 3 | 3 |
| Other | 1 | 1 | 2 |
| Preferred not to respond | 10 | 9 | 9 |
| Academic Rank | | | |
| Professor | 27 | 24 | 28 |
| Associate professor | 28 | 27 | 25 |
| Assistant professor | 28 | 28 | 27 |
| Instructor or lecturer | 14 | 16 | 15 |
| Other | 3 | 5 | 5 |
| Disciplinary Area | | | |
| Arts and Humanities | 25 | 23 | 23 |
| Biological Sciences, Agriculture, && Natural Resources | 7 | 7 | 8 |
| Physical Sciences, Mathematics, and Computer Science | 12 | 11 | 12 |
| Social Science | 13 | 13 | 13 |
| Business | 10 | 11 | 11 |
| Communications, Media, and Public Relations | 4 | 4 | 4 |
| Education | 11 | 10 | 9 |
| Engineering | 4 | 3 | 5 |
| Health Professions | 11 | 12 | 11 |
| Social Science Professions | 4 | 4 | 4 |

Regarding the psychometric portfolio of the FSSE data (details on validity, reliability, and other indicators of the quality of the data), FSSE assesses the quality of their data on an ongoing basis (FSSE, 2019). Regarding the validity of the data, FSSE measures response process validity, construct validity, known groups validity, and concurrent validity. For response process

validity (i.e., do faculty understand the questions to mean what FSSE intended them to mean), FSSE officials suggest that a majority of faculty understand the survey questions (with only one survey question about academic rank that needed further clarification for faculty, and further clarification required additional response options to include in progress degrees). Secondly, for construct validity (i.e., how well does the group of items measure the theoretical concept), confirmatory factor analysis was completed; and overall, FSSE suggested that the “fit indices, factor correlations, and regression weights suggested good subscales in the FSSE surveys” (FSSE, 2019). Third, for known groups validity (i.e., do the results of various subgroups differ or not as expected), FSSE intended to measure whether the “differences between groups were actual differences unrelated to any measurement error” (FSSE, 2019). FSSE’s analysis concluded that the FSSE items are not threatened by the validity threat of measurement invariance. Lastly, for concurrent validity (i.e., do the questions measure the construct in the same way that others have measured it), FSSE suggested that moderate correlations were found between FSSE data and external literature scales; thus, the questions measure the construct in similar manners to how previous literature has measured similar questions. Overall, these measures help to confirm the validity of the FSSE data.

Subsequently, FSSE also measures the reliability of the data in terms of the internal consistency, temporal stability, and equivalence of the data. For internal consistency (i.e., do the items within a scale correlate well with each other), FSSE measured the Cronbach’s alpha and intercorrelations of the FSSE scales. FSSE suggested that Cronbach’s alphas ranged between .73 and .94 for all questions, suggesting that the “scales do contain items that are particularly intercorrelated, having a narrower focus” and do correlate well with each other (FSSE, 2019). Second, for temporal stability (i.e., how stable are the results for institutions upon repeated

administrations), FSSE hypothesized that with no major shift in institutional policies, that the correlation between institution's data year to year would be high. FSSE found that overall, "values of the Pearson's r correlation results suggested that institution-level FSSE scale scores are relatively stable from year to year" (FSSE, 2019). Lastly, for the equivalence of the data (i.e., do results correlate well with those of a similar measure on the same population), FSSE focused on measuring the meaning of vague quantifiers such as "sometimes" or "often" used within the FSSE survey. To appropriately measure this, FSSE "examined a set of survey questions asked in two different ways, first with vague quantifiers and second with a quantifiable time allocation" (FSSE, 2019). FSSE suggested that on average, faculty do assign "distinct and increasing absolute value quantities to never, sometimes, often, and very often" when given as answer choices; and overall, suggested that "vague quantifiers, while they might not be precise, might be good proxy measures for more exact absolute value measures" (FSSE, 2019). Overall, these measures suggest the FSSE data is reliable.

In addition to the validity and reliability of the data, FSSE also measures the non-response effects/bias and social desirability of the FSSE data. Non-response effects/bias (i.e., do the item nonresponse patterns have an impact on the outcome measures) was measured by examining missing data in the survey. Specifically, FSSE utilized chi-square tests of independence to examine the items not responded to by faculty members. FSSE suggested that most of the items that were not responded to did not vary by faculty characteristics; and overall, "institutions and researchers using these survey items can feel confident that item nonresponse does not bias the results of these items" (FSSE, 2019). Subsequently, social desirability (i.e., are FSSE scores influenced by a desire to respond in a socially desirable manner) was measured through a series of ordinary least regression analyses, controlling for various institutional and

faculty characteristics. Overall, FSSE suggested that “in all cases, social desirability bias did not seem to be a major factor in faculty members’ responses to the questions involved in the engagement indicator scales” and even more specific to this study, higher order learning did not have a significant relationship to social desirability bias. However, it should also be noted that many researchers call into question the validity, reliability and other constructs of the FSSE data (Campbell & Cabrera, 2011; Gordon, Ludlum & Hoey, 2008; Porter, 2011). For example, a 2011 special edition journal, *Special Edition Issue of Review of Higher Education*, devoted six articles criticizing the psychometric portfolio of the data. Concluding that care and caution should be taken when analyzing the data and thinking about policy or practice implications.

FSSE Data Descriptive Statistics. When faculty completed the FSSE survey, the faculty member was asked a multitude of questions, ranging from questions about personal characteristics to specific educational practices employed in the classroom. Prior to answering these survey questions, the faculty members were asked to provide their academic discipline appointment. Following this question, the faculty members are asked to answer survey questions focused on educational practices employed in the classroom based on one particular undergraduate course section they are teaching or have taught during the current academic year. Then, the faculty member is asked to provide the academic discipline of the selected course section on which they will be answering the questions (a listing of the academic disciplines is provided in Appendix D). Lastly, the faculty member is asked to respond to whether the selected course section is in the same academic discipline as the faculty member’s appointment.

To ensure only accounting faculty data was being utilized, the sample was limited to accounting faculty who selected to answer the survey questions based on an undergraduate accounting course section taught in the US from 2015 – 2017 (representing approximately 428

accounting faculty). The 428 accounting faculty members were from various participating institutions (29% from Doctoral Universities, 53% from Master's Colleges & Universities, 15% from Baccalaureate Colleges, and 3% from Other). Of the total accounting faculty that responded to each respective question, 46% were males and 50% were females (around 4% indicated another gender identity or did not respond). In addition, the sample represented approximately 78% full-time and 22% part-time accounting faculty members. About 19% of the faculty were professors, 21% were associate professors, 25% were assistant professors, and 31% were instructor or lecturers. Lastly, most of the faculty (73%) were White, followed by Asian (8%) and African American (4%). Descriptive statistics of all accounting faculty characteristics responding to the 2015 – 2017 surveys can be found in Table 3.3

Table 3.3

2015 – 2017 FSSE Accounting Faculty Descriptive Statistics

| Faculty Characteristics | 2015-2017 (428 faculty) |
|---|----------------------------|
| | % |
| Male | 46 |
| Female | 50 |
| Full-time | 78 |
| Part-time | 22 |
| Race | |
| American Indian or Alaska Native | 1 |
| Asian | 8 |
| Black or African American | 4 |
| Hispanic or Latino | 3 |
| Native Hawaiian or other Pacific Islander | 0 |
| White | 73 |
| Multiracial | 2 |
| Other | 1 |
| Preferred not to respond | 10 |
| Academic Rank | |
| Professor | 19 |
| Associate professor | 21 |
| Assistant professor | 25 |
| Instructor or lecturer | 31 |

| | |
|------------------------------------|----|
| Other | 5 |
| Carnegie Classification | |
| Doctoral Universities | 29 |
| Master's Colleges and Universities | 53 |
| Baccalaureate Colleges | 15 |
| Other | 3 |

In addition to the accounting faculty descriptive statistics, I also provide further descriptive statistics on accounting faculty pedagogical practices. One FSSE survey question stated, “In your selected course section, about what percent of class time is spent on the following?” After this question stem, the following list of pedagogical practices were given as separate survey questions: lecture, discussion, small group activities, student presentations or performances, independent student work (writing, painting, designing, etc.), assessment of student learning (tests, evaluations, surveys, polls, etc.), and experiential activities (labs, fieldwork, clinical or field placements, etc.). The response choices included 0%, 1 – 9%, 10 – 19%, 20 – 29%, 30 – 39%, 40 – 49%, 50 – 74%, 75% or more. For easier interpretation, I grouped the percentages into four categories: < 20% of class time, 20 – 49% of class time, 50 – 74% of class time, and > 75% of class time.

Overall descriptive statistics included that 41% of the accounting faculty spent over 50% of class time lecturing. Further, 60% accounting faculty stated they spent less than 20% of class time on discussion; 74% of accounting faculty spent less than 20% of class time on small group activities; 95% of accounting faculty spent less than 20% of class time on student presentations; 90% of accounting faculty spent less than 20% of class time on independent student work; 87% of accounting faculty spent less than 20% of class time on assessment of student learning; and 90% of accounting faculty spent less than 20% of class time on experiential activities. Refer to Table 3.4 for a detailed breakdown of each survey question by survey response.

Table 3.4

Percentage of FSSE Accounting Faculty that Spend time on Specific Pedagogical Practices in the Accounting Classroom

| Pedagogical practice in the accounting classroom | <20% Class Time | 20-49% Class Time | 50-74% Class Time | >75% Class Time |
|---|-----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| Lecture | 17% | 43% | 32% | 9% |
| Discussion | 60% | 37% | 2% | 1% |
| Small Group Activities | 74% | 23% | 2% | 0% |
| Student Presentations or Performances | 95% | 4% | 1% | 0% |
| Independent Student Work | 90% | 7% | 1% | 2% |
| Assessment of Student Learning | 87% | 14% | 1% | 1% |
| Experiential Activities | 90% | 6% | 1% | 1% |

I could not compare these percentages to prior years to gain a better understanding as to whether these numbers were continually increasing due to the nature of the FSSE survey changing structure over the past few years. However, FSSE (2019) does publish publicly available data on other faculty groups (Arts & Humanities; Biological & Agricultural; Business; Communication & Public Relations; Education; Engineering; Health Professions; Physical Sciences, Math & Computer Science; Social Sciences; Social Service Professions). In comparing the accounting faculty percentages to other faculty groups (except for Business faculty, since accounting faculty would be included within the Business discipline) that took the survey during the same time period, 2015 – 2017, only a third of all other faculty groups stated they lectured for 50% of class time, and an average of 70% of all other faculty groups utilized less than a fifth of class time on pedagogical practices that are more apt to promote higher order learning. The data suggesting that accounting faculty are more likely to utilize pedagogical practices that are less apt to promote higher order learning skill sets for students more so than all other faculty types.

Furthermore, the below table provides descriptive statistics on accounting faculty's emphasis of higher order learning in the accounting classroom. The FSSE survey question that measured the percentage of accounting faculty that stated they emphasized higher order learning in the undergraduate accounting classroom stated, "In your selected course section, how much does the coursework emphasize the following?" After this question stem, the following four sentences were included as separate survey questions aimed at measuring specific aspects of higher order learning (FSSE, 2019).

1. Applying facts, theories, or methods to practical problems or new situations
2. Analyzing an idea, experience, or line of reasoning in depth by examining its parts
3. Evaluating a point of view, decision, or information source
4. Forming a new idea or understanding from various pieces of information

For each survey question, the response choices included very little, some, quite a bit, or very much.

Overall descriptive statistics for this question included the following. Over half the accounting faculty (63%) applied facts, theories, or methods to practical problems or new situations in their accounting courses "very much" of the time, and close to all the accounting faculty (95%) did this "quite a bit" or "very much" of the time in their accounting courses. Similar in nature, a majority of the accounting faculty (72%, 51%, 56%) stated they emphasized analyzing an idea, experience, or line of reasoning in depth by examining its parts; evaluating a point of view, decision, or information source; and forming a new idea or understanding from various pieces of information "quite a bit" or "very much" of the time, respectively. When combining all the higher order learning aspects together into one consolidated higher order learning variable, 57% of the accounting faculty emphasized higher order learning in the

accounting classroom “quite a bit” or “very much” of the time. Refer to Table 3.5 for a detailed breakdown of each survey question by survey response.

Table 3.5

Percentage of FSSE Accounting Faculty that Stated they Emphasize Higher Order Learning in the Accounting Classroom

| Higher order learning aspect in the accounting classroom | Very Little Class Time | Some Class Time | Quite a bit of Class Time | Very much Class Time |
|---|-------------------------------|------------------------|----------------------------------|-----------------------------|
| Applying facts, theories, or methods to practical problems or new situations | 1% | 5% | 32% | 63% |
| Analyzing an idea, experience, or line of reasoning in depth by examining its parts | 7% | 21% | 32% | 40% |
| Evaluating a point of view, decision, or information source | 16% | 32% | 31% | 20% |
| Forming a new idea or understanding from various pieces of information | 17% | 27% | 37% | 19% |
| Overall | 8% | 36% | 48% | 9% |

Similar to the comparison made above to all other faculty groups, in comparing the FSSE accounting faculty percentages to other faculty groups (except for Business) that took the survey during the same time period, 2015 – 2017, similar trends were suggested as other faculty groups also focus more class time on *application* and *analysis* (rather than *evaluation* and *creation*). However, even though all other faculty groups are spending more time on *application* and *analysis* (rather than *evaluation* and *creation*), when examining specific class time percentages for *evaluation* and *creation*, all other faculty groups are spending more time on *evaluation* and *creation* overall than accounting faculty. For example, a little over half of the FSSE accounting faculty stated they spend quite a bit or very much of class time *evaluating* or *creating* new ideas; whereas, three-fourths of all other faculty spend quite a bit or very much of class time *evaluating* or *creating* new ideas. Therefore, while the trend for all faculty may be to spend more time on *application* and *analysis*, other faculty groups are spending more time on *evaluation* and *creation*

than accounting faculty. This data suggesting that accounting faculty are not only utilizing pedagogical practices less apt to promote higher order skill sets but even when they are spending time on these types of practices, they are spending more time on promoting application and analysis skill sets.

Qualitative Analysis Data Source. Data to answer the research questions two and three were collected through qualitative research. The quantitative methods occurred first in sequence then the qualitative methods. The qualitative results were analyzed to identify trends in order to gain a better understanding of the overall research questions (Merriam, 2009). This approach mirrors a sequential explanatory strategy described by Creswell (2017) where the study has an initial phase (quantitative data collection and analysis), followed by a second phase (qualitative data collection and data analysis) that builds on the initial phase and is guided by a theoretical lens.

To expand on the quantitative research questions and derive more detailed conclusions, I interviewed a sample of accounting faculty. In determining the specific sample of accounting faculty, I was guided by the key significant variables from the quantitative analysis. Among the regression analyses for research question one, stronger instances of significant relationships were suggested for faculty gender and various course specific variables (such as course student level, course format, and course general education requirement). Specifics on these instances of significant relationships are detailed in Chapter 4. Therefore, when determining the faculty to be interviewed, I sought out diversity in faculty gender and course variables as much as possible. However, to ensure a range of accounting faculty were interviewed, I also interviewed faculty across a variety of characteristics and demographics, as well.

In total, interviews with 25 accounting faculty at 19 institutions were conducted. In using the stronger significant relationships suggested by the quantitative analyses, I interviewed both male and female accounting faculty that taught a variety of different types of courses. The 25 faculty members were comprised of 8 males and 17 females; and, additionally, the faculty members comprised of six lecturers (two part-time, four full-time), eight assistant professors, nine associate professors, and two full professors from 19 different institutions. Eleven faculty members were from institutions with less than 20,000 student enrollments and 14 faculty members were from institutions with more than 20,000 student enrollments. Each of the 25 faculty members also taught various types of courses within the accounting discipline. Specifically, within the past year, many of the faculty had taught more than one course and more than one sub-discipline in accounting. For example, each of the 25 faculty interviewed had taught a total of 44 different accounting courses. Approximately 11 of those courses were comprised of only sophomores or sophomores and juniors, six courses were comprised of juniors, and 17 courses were comprised of juniors and seniors or only seniors, and 10 courses were comprised of graduate level students. Furthermore, a variety of sub-disciplines were also among the 44 different accounting courses (the following is a listing of sub-disciplines in accounting: financial accounting, managerial accounting, audit, taxation, and accounting systems). The 25 faculty interviewed had taught approximately 13 courses within the financial sub-discipline (ten at the undergraduate level and three at the graduate level), ten courses within the managerial sub-discipline (seven at the undergraduate level and three at the graduate level), five courses in the audit sub-discipline (all at the undergraduate level), five courses in the tax sub-discipline (three at the undergraduate level and two at the graduate level), six courses in the systems sub-discipline (five at the undergraduate level and one at the graduate level), and five

courses in an “other” sub-discipline category (comprised of courses taught at both the undergraduate and graduate level, example courses include international financial reporting standards, non for profit accounting, ethics in accounting, judgement and decision making, and financial reporting courses).

The sample of accounting faculty were purposefully identified through personal and professional connections and references (Suri, 2011). Following full IRB approval, I contacted faculty members through an initial recruitment email to gauge interest in participation within my study. Each email included a small introduction, brief summary of the research study, how the faculty member’s information was obtained, investigators in the study, and the overall purpose of the study. If the faculty member agreed to participate in the interview, I obtained their consent (consent form provided in Appendix E) and scheduled an interview. The focus of the interview questions was to understand what factors accounting faculty describe as the reasons for choosing certain pedagogical practices in the accounting classroom, and what pedagogical practices accounting faculty currently utilize in their class sessions. For those faculty choosing not to incorporate pedagogical practices that promote higher order learning, I also included interview questions to understand why this was the case for those faculty. The interviews were conducted either via by phone or in person and took approximately 30 – 60 minutes. There are many advantages and disadvantages to utilizing phone and in person interviews. For instance, in person interviews yield more quality data (Knox & Burkard, 2009) and have less social desirability bias (Tourangeau & Yan, 2007); but, are more likely to have response bias data (Knox & Burkard, 2009) and expensive to carry out (Shuy, 2003). As such, phone interviews are less expensive in nature, quite common, and enable researchers to include participants from a variety of different areas (Knox & Burkard, 2009). Phone interviews also allow the researchers to take detailed notes

without making the participants feel uncomfortable while reducing response bias (Knox & Burkard, 2009). Thus, for this study, a combination of in person and phone interviews were utilized. For each semi-structured interview, I prepared an initial set of interview questions to ask each faculty member (provided in Appendix E) but also asked follow up questions as necessary to allow the faculty member to feel as if the interview was as conversational as possible (as well as to gain further understanding about specific pedagogical practices). To ensure that responses were captured accurately, I took detailed notes during the interviews and recorded the audio. Each interview was recorded via an application on my computer and iPhone. After every interview, I transcribed each audio recording by replaying the audio, then consolidating the audio transcription with my handwritten notes taken during the interview sessions. To ensure appropriateness and completeness of the audio transcription and my notes, I sent a follow up copy of my consolidated notes to each participant to confirm the captured information and to allow the interviewee to add any additional insights that might have been missed. After the interviews were completed, I coded the data by hand to further identify emerging trends among the questions asked to the faculty member. Specific codes used are detailed in the subsequent chapter. However, to code the data, open coding was first used and then, axial coding. For every survey question, I started with open coding, and I analyzed line by line the faculty responses into different units of meaning or concepts (Moghaddam, 2006; Saldaña, 2015). After this was conducted, I completed axial coding by comparing the concepts to determine if relationships existed. Various similarities and differences among the concepts led to the creation of multiple categories and sub-categories for each set of responses to the survey questions (Saldaña, 2015). After open and axial coding were completed, general themes were identified. These themes are provided and discussed further in the results and discussion chapters. Prior to moving into the

results and discussion chapters, the next section discusses the methodology utilized for each research question.

Methodology

Using both the FSSE data and qualitative interview data, I employed the following methodology for each research question.

Research Question 1

The first research question states, “What factors are associated with the pedagogical practices used by accounting faculty in the accounting classroom?” Is it who you are, what you teach, or where you teach that most influences pedagogical approaches that a faculty member uses? I first analyze what factors are most influential on specific pedagogical practices in the accounting classroom; then, I consider the most influential factors on emphasis of higher order learning in the accounting classroom. To examine these relationships, I utilize ordinary least squares regression and logistic regression.

Dependent Variables. Two sets of dependent variables were examined. The first set of dependent variables utilized in the ordinary least squares regression measured the percentage of time spent on pedagogical practices utilized in the undergraduate accounting classroom. The survey question that measured the dependent variable stated, “In your selected course section, about what percent of class time is spent on the following?” After this question stem, the following list of pedagogical practices were given as separate survey questions: lecture, discussion, small group activities, student presentations or performances, independent student work (writing, painting, designing, etc.), assessment of student learning (tests, evaluations, surveys, polls, etc.), and experiential activities (labs, fieldwork, clinical or field placements, etc.). Since pedagogical practices were measured using seven survey questions, I disaggregated the

regression equation into seven smaller regression equations (1aa, 1ab, 1ac, 1ad, 1ae, 1af, and 1ag). Each of the seven regression equations (1aa – 1ag) had a separate dependent variable representing one FSSE survey question aimed at measuring the percentage of class time spent on one specific pedagogical practice. For example, the dependent variable for regression equation 1aa measured the percentage of class time spent on lecture. The following represents each dependent variable measured by each regression equation (1aa – 1ag):

1aa. Lecture

1ab. Discussion

1ac. Small group activities

1ad. Student presentations or performances

1ae. Independent student work (writing, painting, designing, etc.)

1af. Assessment of student learning (tests, evaluations, surveys, polls, etc.)

1ag. Experiential activities (labs, fieldwork, clinical or field placements, etc.)

The response choices included 0%, 1-9%, 10-19%, 20-29%, 30-39%, 40-49%, 50-74%, 75% or more; however, I converted each category of percentages into a midpoint for the ordinary least squares regression analysis.

The second set of dependent variables aimed at measuring the emphasis of higher order learning in the classroom and was measured by the FSSE survey that stated, “In your selected course section, how much does the coursework emphasize the following?” After this question stem, the following four set of instructional activities were included as separate survey questions aimed at measuring specific aspects of higher order learning (FSSE, 2019).

1. Applying facts, theories, or methods to practical problems or new situations
2. Analyzing an idea, experience, or line of reasoning in depth by examining its parts

3. Evaluating a point of view, decision, or information source
4. Forming a new idea or understanding from various pieces of information

Therefore, since higher order learning was measured using four survey questions, this set of regression analyses was disaggregated into five regression equations (1ba, 1bb, 1bc, 1bd, and 1be). The first four regression equations (1ba – 1bd) had a separate dependent variable, each representing one statement aimed at measuring higher order learning in the FSSE survey. For example, the dependent variable for regression equation 1ba measured how much an accounting faculty member stated they applied facts, theories, or methods to practical problems or new situations in their accounting classroom. The dependent variable for the fifth regression equation (1be) averaged answers from all four statements into one variable, representing an overall variable for higher order learning. The following represents each dependent variable measured by each regression equation (1ba – 1be):

- 1ba. Applying facts, theories, or methods to practical problems or new situations
- 1bb. Analyzing an idea, experience, or line of reasoning in depth by examining its parts
- 1bc. Evaluating a point of view, decision, or information source
- 1bd. Forming a new idea or understanding from various pieces of information
- 1be. Overall variable for Higher Order Learning, which is the sum of 1ba – 1bd

The response choices for each survey question included very little, some, quite a bit, or very much. Due to the nature of the answer choices, I consolidated the response choices into two categories: very little/some and quite a bit/very much. Since the dependent variable for each regression (1ba – 1be) became a binary variable, a logistic regression analysis was used to analyze the relationships (Aldrich, Nelson & Alder, 1984).

Independent Variables. I use three sets of independent variables to determine what influences pedagogical techniques and emphasis on higher order learning the most, (1) faculty characteristics, (2) course characteristics, and (3) institution characteristics. Due to the limitations of data sharing agreement, the following faculty demographics and characteristics were shared, faculty: gender (male, female), age, citizenship (yes, no), ethnicity (Indian, Asian, Black, Hispanic, Hawaiian, White, Other, Not Respond), full-time, rank (professor, associate, assistant, instructor or lecturer, graduate teaching assistant, other), tenure (no tenure at school, not on tenure track, on tenure track, tenured), years teaching, and highest degree (doctoral, professional, masters, bachelors, associate, other). The following course and institution characteristics were shared: student level (mostly freshman/sophomore or mostly junior/ senior students), course size (20 or fewer, 21-30, 31-40, 41-50, 51-100, more than 100), format of course (classroom instruction on campus, classroom instruction at an auxiliary location, distance education, combination of classroom instruction and distance education), how many times the faculty member taught the course (1-2, 3-4, 5-9, 10 or more times), general education requirement (yes, no), institutional size (very small <1,000 students; small 1,000 – 2,499; medium 2,500 – 4,999; large 5,000 – 9,999; very large 10,000+), and public or private university. I do recognize there are other variables that may influence these relationships; however, this limitation is addressed further in the limitations section of this study.

Regression Analyses. The first set of dependent variables describe time spent on certain pedagogical practices and the second set describe emphasis of higher order learning in the classroom. Time spent on pedagogical practices are continuous variables, while emphasis of higher order learning are dichotomous variables. Therefore, ordinary least squares regression

analysis was used for the first set of dependent variables (1a) and logistic regression was used for the second set of dependent variables (1b). The following represents the regression equations.

$$(1a) Y_a = \beta_0 + \beta_1\mathbf{F} + \beta_2\mathbf{C} + \beta_3\mathbf{I} + \epsilon$$

$$(1b) Y^*_a = \beta_0 + \beta_1\mathbf{F} + \beta_2\mathbf{C} + \beta_3\mathbf{I} + \epsilon$$

The dependent variable for regression equation 1a (Y_a) represents the time spent on certain pedagogical practices; while, the dependent variable for regression equation 1b (Y^*_a) represents whether a faculty member emphasized a certain aspect of higher order learning (1 if answered very much or quite a bit of emphasis of the higher order learning aspect in the classroom and 0 if answered some or very little emphasis). There are seven different types of pedagogical practices analyzed; therefore, regression equation 1a is broken into seven different regression equations. For regression equation 1aa, Y_a represents the amount of class time spent on lecture; for regression 1ab, Y_a represents the amount of class time spent on discussion; for regression 1ac, Y_a represents the amount of class time spent on small group activities; for regression 1ad, Y_a represents the amount of class time spent on student presentations or performances; for regression 1ae, Y_a represents the amount of class time spent on independent student work; for regression 1af, Y_a represents the amount of class time spent on assessment of student learning; and for regression 1ag, Y_a represents the amount of class time spent on experiential activities. Additionally, for the second set of dependent variables, there are five aspects of higher order learning measured. For regression 1ba, Y^*_a represents the amount of coursework that emphasizes applying facts, theories, or methods to practical problems or new situations; for regression 1bb, Y^*_a represents the amount of coursework that emphasizes analyzing an idea, experience, or line of reasoning in depth by examining its parts; for regression 1bc, Y^*_a represents the amount of coursework that emphasizes evaluating a point of view,

decision, or information source; for regression 1bd, Y^*_a represents the amount of coursework that emphasizes forming a new idea or understanding from various pieces of information; and for regression 1be, Y^*_a represents the overall higher order learning variable. Following, **F** represents the set of faculty characteristics, **C** represents the set of course characteristics, and **I** represents the set of institution characteristics. Descriptive statistics for all variables are shown in Table 3.6. Due to the high correlation and number of independent variables, seven models were run to determine the best fit. Model 1 contained all possible independent variables. Model 2 condensed the following variables into smaller categories: race, tenure, course size, course previously taught, institution size, and removed the variable of rank. Model 3 was the same as Model 2 except replaced the variable tenure with rank. Model 4 was the same as Model 3 but removed the variable of course previously taught. Model 5 was the same as Model 4 but replaced the variable tenure with rank. Model 6 continued to utilize the condensed race and rank variables but removed tenure and all course and institution variables. Model 7 was the same as Model 6 but replaced the variable rank with tenure. Table 3.7 provides the breakdown of variables utilized for each model. Key results from each model are detailed in the following chapter and full results are displayed in Appendices F and G, with Appendix G results displayed using marginal effects.

Table 3.6

Descriptive Statistics for All Variables

| Variable | N | Mean | Std. Dev. | Min | Max |
|------------------------------|-----|-------|-----------|-----|-----|
| <i>Independent Variables</i> | | | | | |
| <i>Faculty Variables</i> | | | | | |
| Gender | 377 | 0.48 | 0.50 | 0 | 1 |
| Age | 376 | 53.12 | 11.34 | 23 | 84 |
| US Citizen | 388 | 0.98 | 0.15 | 0 | 1 |
| Full Time | 396 | 0.78 | 0.42 | 0 | 1 |
| American Indian | 392 | 0.01 | 0.11 | 0 | 1 |
| Asian | 392 | 0.08 | 0.27 | 0 | 1 |
| African American | 392 | 0.04 | 0.19 | 0 | 1 |
| Latino or Hispanic | 392 | 0.03 | 0.17 | 0 | 1 |
| White | 392 | 0.76 | 0.43 | 0 | 1 |

| | | | | | |
|---|-----|------|------|---|-------|
| Other | 392 | 0.01 | 0.10 | 0 | 1 |
| Preferred Not to Respond (PNR) | 392 | 0.10 | 0.30 | 0 | 1 |
| Other Including Indian & PNR | 428 | 0.02 | 0.13 | 0 | 1 |
| Professor | 398 | 0.19 | 0.39 | 0 | 1 |
| Associate Professor | 398 | 0.21 | 0.41 | 0 | 1 |
| Assistant Professor | 398 | 0.25 | 0.43 | 0 | 1 |
| Instructor or Lecturer | 398 | 0.31 | 0.46 | 0 | 1 |
| Other | 398 | 0.05 | 0.22 | 0 | 1 |
| Tenured | 397 | 0.29 | 0.45 | 0 | 1 |
| On Tenure Track | 397 | 0.18 | 0.39 | 0 | 1 |
| Not on Tenure Track | 397 | 0.36 | 0.48 | 0 | 1 |
| No Tenure Offered | 397 | 0.18 | 0.38 | 0 | 1 |
| Tenured Professor | 397 | 0.14 | 0.34 | 0 | 1 |
| Tenured Associate Professor | 397 | 0.12 | 0.32 | 0 | 1 |
| Tenured Assistant Professor | 397 | 0.03 | 0.16 | 0 | 1 |
| Tenured Instructor or Lecturer | 397 | 0.01 | 0.07 | 0 | 1 |
| On Tenure Track Professor | 397 | 0.00 | 0.05 | 0 | 1 |
| On Tenure Track Associate Professor | 397 | 0.03 | 0.16 | 0 | 1 |
| On Tenure Track Assistant Professor | 397 | 0.15 | 0.36 | 0 | 1 |
| Not On Tenure Track Professor | 397 | 0.02 | 0.13 | 0 | 1 |
| Not On Tenure Track Associate Professor | 397 | 0.03 | 0.16 | 0 | 1 |
| Not On Tenure Track Assistant Professor | 397 | 0.04 | 0.20 | 0 | 1 |
| Not On Tenure Track Assistant Instructor/Lecturer | 397 | 0.24 | 0.43 | 0 | 1 |
| Tenure Not Offered Professor | 397 | 0.03 | 0.17 | 0 | 1 |
| Tenure Not Offered Associate Professor | 397 | 0.04 | 0.20 | 0 | 1 |
| Tenure Not Offered Assistant Professor | 397 | 0.03 | 0.16 | 0 | 1 |
| Tenure Not Offered Instructor/Lecturer | 397 | 0.06 | 0.24 | 0 | 1 |
| <i>Course Variables</i> | | | | | |
| Course Student Level: Freshman/Sophomore | 426 | 0.37 | 0.48 | 0 | 1 |
| Course Student Level: Junior/Senior | 426 | 0.59 | 0.49 | 0 | 1 |
| Course Size: 0 - 20 | 427 | 0.19 | 0.39 | 0 | 1 |
| Course Size: 21 - 30 | 427 | 0.33 | 0.47 | 0 | 1 |
| Course Size: 31 - 40 | 427 | 0.26 | 0.44 | 0 | 1 |
| Course Size: 41 - 50 | 427 | 0.10 | 0.30 | 0 | 1 |
| Course Size: 51 - 100 | 427 | 0.08 | 0.27 | 0 | 1 |
| Course Size: 100+ | 427 | 0.05 | 0.21 | 0 | 1 |
| Course Size <50 | 427 | 0.87 | 0.34 | 0 | 1 |
| Course Size >50 | 427 | 0.13 | 0.34 | 0 | 1 |
| Course Format: On Campus | 427 | 0.82 | 0.39 | 0 | 1 |
| Course Format: Auxiliary Location | 427 | 0.02 | 0.14 | 0 | 1 |
| Course Format: Distance Education | 427 | 0.06 | 0.24 | 0 | 1 |
| Course Format: Combination | 427 | 0.10 | 0.30 | 0 | 1 |
| Course Previously Taught: 0 Times | 397 | 0.06 | 0.23 | 0 | 1 |
| Course Previously Taught: 1-9 Times | 397 | 0.41 | 0.49 | 0 | 1 |
| Course Previously Taught: 10+ Times | 397 | 0.53 | 0.50 | 0 | 1 |
| Course Previously Taught: 1-2 Times | 397 | 0.13 | 0.33 | 0 | 1 |
| Course Previously Taught: 3-4 Times | 397 | 0.12 | 0.32 | 0 | 1 |
| Course Previously Taught: 5-9 Times | 397 | 0.17 | 0.38 | 0 | 1 |
| General Education Course | 428 | 0.42 | 0.49 | 0 | 1 |
| <i>Institution Variables</i> | | | | | |
| Inst Size < 10,000 | 428 | 0.71 | 0.45 | 0 | 1 |
| Inst Size > 10,000 | 428 | 0.29 | 0.45 | 0 | 1 |
| Inst Size: Less than 1,000 | 428 | 0.04 | 0.20 | 0 | 1 |
| Inst Size: 1,000 - 2,499 | 428 | 0.14 | 0.35 | 0 | 1 |
| Inst Size: 2,500 - 4,999 | 428 | 0.19 | 0.40 | 0 | 1 |
| Inst Size: 5,000 - 9,999 | 428 | 0.34 | 0.47 | 0 | 1 |
| Public | 428 | 0.58 | 0.49 | 0 | 1 |
| <i>Dependent Variables</i> | | | | | |
| Lecture | 400 | 0.44 | 0.23 | 0 | 0.875 |
| Discussion | 381 | 0.20 | 0.15 | 0 | 0.875 |
| Small Group | 381 | 0.13 | 0.14 | 0 | 0.875 |
| Presentations | 373 | 0.05 | 0.09 | 0 | 0.875 |
| Independent Work | 377 | 0.08 | 0.15 | 0 | 0.875 |
| Assessment | 393 | 0.13 | 0.12 | 0 | 0.875 |

| | | | | | |
|---|-----|------|------|---|-------|
| Experiential Activities | 382 | 0.05 | 0.13 | 0 | 0.875 |
| Emphasis on Application | 394 | 0.94 | 0.24 | 0 | 1 |
| Emphasis on Analysis | 393 | 0.72 | 0.45 | 0 | 1 |
| Emphasis on Evaluation | 392 | 0.51 | 0.50 | 0 | 1 |
| Emphasis on Formation | 391 | 0.56 | 0.50 | 0 | 1 |
| Emphasis on Overall Higher Order Learning | 428 | 0.82 | 0.39 | 0 | 1 |

Table 3.7

Breakdown of Independent and Control Variables Utilized by Seven Models for Regression Analyses Equations

| Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 |
|-------------------------------|-------------------------------|-------------------------------|--------------------------|--------------------------|--------------------|--------------------|
| Gender | Gender | Gender | Gender | Gender | Gender | Gender |
| Age | Age | Age | Age | Age | Age | Age |
| US Citizen | US Citizen | US Citizen | US Citizen | US Citizen | US | US |
| Full Time | Full Time | Full Time | Full Time | Full Time | Full Time | Full Time |
| American Indian | | | | | | |
| Asian | Asian | Asian | Asian | Asian | Asian | Asian |
| African American | African American | African American | African American | African American | African | African |
| Hispanic or Latino | Hispanic or Latino | Hispanic or Latino | Hispanic or Latino | Hispanic or Latino | Hispanic or Latino | Hispanic or Latino |
| Other | Other | Other | Other | Other | Other | Other |
| Preferred Not to Respond | | | | | | |
| Tenured Asso Prof | Tenure | Rank | Rank | Tenure | Rank | Tenure |
| Tenured Asst Prof | | | | | | |
| Tenured Instru | | | | | | |
| OTT* Associate | | | | | | |
| OTT Asst | | | | | | |
| NOTT** Prof | | | | | | |
| NOTT Asso Prof | | | | | | |
| NOTT Asst Prof | | | | | | |
| NOTT Instruct | | | | | | |
| TNO*** Prof | | | | | | |
| TNO Asso | | | | | | |
| TNO Asst | | | | | | |
| TNO Instruct | | | | | | |
| Course Student Level | Course Student Level | Course Student Level | Course Student Level | Course Student Level | | |
| Course Size 21-30 | Course Size <50 | Course Size <50 | Course Size <50 | Course Size <50 | | |
| Course Size 31-40 | Course Size >50 | Course Size >50 | Course Size >50 | Course Size >50 | | |
| Course Size 41-50 | | | | | | |
| Course Size 51-100 | | | | | | |
| Course Size 100+ | | | | | | |
| Course Format: On Campus | Course Format: On Campus | Course Format: On Campus | Course Format: On Campus | Course Format: On Campus | | |
| Course Format: Aux | Course Format: Aux | Course Format: Aux | Course Format: Aux | Course Format: Aux | | |
| Course Format: Mixture | Course Format: Mixture | Course Format: Mixture | Course Format: Mixture | Course Format: Mixture | | |
| Course Previously Taught: 1-2 | Course Previously Taught: 1-9 | Course Previously Taught: 1-9 | | | | |
| Course Previously Taught: 3-4 | Course Previously Taught: 10+ | Course Previously Taught: 10+ | | | | |
| Course Previously Taught: 5-9 | | | | | | |

| | | | | | | |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--|--|
| Course Previously Taught: 10+ | | | | | | |
| Course: General Ed | Course: General Ed | Course: General Ed | Course: General Ed | Course: General Ed | | |
| Inst Size: < 1,000 | | | | | | |
| Inst Size: 1,000 - 2,499 | Inst Size < 10,000 | Inst Size < 10,000 | Inst Size < 10,000 | Inst Size < 10,000 | | |
| Inst Size: 2500 - 4,999 | Inst Size > 10,000 | Inst Size > 10,000 | Inst Size > 10,000 | Inst Size > 10,000 | | |
| Inst Size: 5000- 9,999 | | | | | | |
| Inst Size: 10,000+ | | | | | | |
| Public | Public | Public | Public | Public | | |

*OTT = On Tenure Track; **NOTT= Not on Tenure Track; ***TNO=Tenure Not Offered

Research Question 2 and 3

To address research two, what factors do accounting faculty describe as reasons for choosing certain pedagogical practices in the accounting classroom, and research question three, do accounting faculty utilize pedagogical practices that emphasize higher order learning in the accounting classroom, I utilized the qualitative analysis technique of semi-structured interviews detailed above in the qualitative data source section. Within the interviews, I asked faculty to share with me what affects or influences how they teach and the content they teach. Later in the interview, I asked each accounting faculty member to describe their day-to-day teaching practices employed in their classroom and asked the faculty members what percentage of their course was used for each various practice they suggested. I also compared this to the 2015 – 2017 FSSE dataset to determine if faculty were currently utilizing the same types of practices in the accounting classroom. Following, if the faculty member stated they used a pedagogical practice that emphasized higher order learning, I then asked the faculty member to expand on the details on the practice. For example, if the faculty member stated they utilized discussion in the classroom, I followed up by asking the faculty member to describe how they utilized discussion techniques (i.e. was it only during certain topics, was it used every class period, did they initiate the discussion, how long did the discussions take place). This follow up question was to gain further knowledge on the specific types of pedagogical approaches.

Limitations

Prior to moving into the results of each research question, there are a few limitations that should be addressed. First, regarding the FSSE data, only certain institutions participate within the FSSE survey and the specific institutions are blinded/not revealed to me as a researcher. Since institutions that have participated in the NSSE survey are invited to take the FSSE survey, the number of accounting faculty responses is limited to only those faculty at institutions that have previously participated in the NSSE survey. In addition, due to the limitations of the data sharing agreement, the accounting faculty responses cannot be tied to a specific institution.

Secondly, this study utilizes self-reported faculty data; however, scholars argue that, “generally, self-reports can be trusted as long as survey instruments and administration process were designed with attention to the scholarship of survey research” (Gonyea, 2005, p. 84). For example, the soft response categories utilized by the FSSE survey and social desirability of the data were tested by FSSE to ensure appropriateness of the self-reported data. Moreover, multiple data sources can be used to confirm and gain further insight on faculty pedagogy, as conducted within this study (Tashakkori & Creswell, 2007).

Third, some variables that may affect faculty pedagogy were not addressed within the regression analysis due to the limitations of the original data collection process (i.e., pedagogical approach for a specific course, institutional influences of an active learning environment, faculty development, external influences from profession). However, to address this limitation, many of these factors were discussed with faculty within the qualitative interviews to determine if these factors affect faculty pedagogical practices.

Lastly, a limited number of individuals were interviewed among accounting faculty, and it is unknown as to whether these interviewees also participated in the FSSE survey. However,

after the initial 25 interviews, no new themes were generated; therefore, I concluded that saturation of interview responses had been reached (Saunders, Sim, Kingstone, Baker, Waterfield, Bartlam, Burroughs, & Jinks, 2018). Thus, the following chapters provide the results from the study, followed by sections on the discussion, conclusion, and direction of future research in this area.

CHAPTER 4

RESULTS

This research study aimed to understand what factors are associated with the pedagogical practices used by faculty in the accounting classroom, do accounting faculty utilize pedagogical practices that expose students to higher order skills; and if so, how are faculty emphasizing these practices in their accounting classroom? Thus, in this chapter, I first briefly provide an overview of the findings from the descriptive statistics section, and then, how this information is helpful in transitioning to the results from each set of research questions.

Prior to moving into the specific results for research question one, I first provide a recap of the results from the descriptive statistics data noted from the FSSE survey. The data suggested that accounting faculty (compared to faculty in other disciplines) are more likely to utilize pedagogical practices that are less apt to promote higher order learning skill sets (i.e., lecturing) and less likely to utilize pedagogical practices that are more apt to promote higher order learning skill sets (i.e., discussion, small group activities, student presentations, independent student work, etc.). However, the data also suggested that accounting faculty do emphasize higher order learning quite a bit or very much in the accounting classroom. These two findings together seem contradictory because prior literature tells us that lecture is less likely to promote higher order learning skill sets in students. With this, it seems as though there is a disconnect among faculty since faculty seem to think they are emphasizing higher order learning skill sets; yet, accounting faculty are utilizing pedagogical practices that are less apt to promote these skill sets during most of their class time. This could be due to a few different reasons. For example, faculty may

(incorrectly) believe that they are still promoting higher order learning skill sets in students through their older practices, such as lecturing, and thus respond to the survey with affirmation of use. Furthermore, faculty may also believe that there is still too much technical content needed to be taught to incorporate pedagogical practices such as discussion, group work, and/or presentations into their curriculum but still think their students are gaining higher order learning skill sets when completing homework and/or studying for quizzes/exams after they have lectured during class time. Or in a different context, accounting faculty are answering the survey questions based on how they believe they should answer based on social norms; even though the FSSE researchers did suggest that “in all cases, social desirability bias did not seem to be a major factor in faculty members’ responses to the questions involved in the engagement indicator scales” (FSSE, 2019). Further analysis into faculty pedagogy may provide additional context as to why this disconnect may be occurring.

Research Question 1 Results

Research Question 1

Research question one sought to examine the significant relationships between various faculty, course, and institution characteristics and the specific pedagogical practices in the accounting classroom, as well as, the emphasis of higher order learning in the accounting classroom. In reviewing all seven models holistically, the R^2 and pseudo R^2 results are similar to prior research in this area (Nelson Laird et al., 2011; Wang, BrckaLorenz, & Chiang, 2015). Due to the nature of the model one having the most variables, it also had the highest R^2 . However, in model one, the sample size is the smallest (~320 faculty) and contained the most detailed and instances of insignificant variables. Models two through seven condensed or removed a variety of faculty demographic and control variables (refer to Table 3.6 for a detailed breakdown of

variables utilized within each model). Even though a few percentage points were lost in models two through seven, for the most part, the significant variables within model one remained significant through models two through seven. The only variable that became more statistically significant in models two through seven was gender, and this was just for the regression equations utilizing time spent on pedagogical practices as the dependent variable (1aa – 1ag). Thus, the significant results suggested below are based on an average among the seven models. Refer to Appendix F for full results from regression equations 1aa – 1ag and Appendix G from regression equations 1ba – 1be.

Regarding the results for regression analyses 1aa – 1ag, the following variables had many instances of significance: gender, course format, and course level. On average, for males, the predicted percentage of class time spent on small group activities decreased by 5 percentage points, decreased by 4 percentage points for independent student work, and decreased 3 percentage points for experiential activities. Additionally, the predicted percentage of class time spent on lecturing for males increased by 5 percentage points. Refer to Table 4.1 for detailed findings. Regarding the variable of course format, on campus courses had the most instances of significant relationships. On average, for courses that were taught on campus (as compared to online courses), the predicted percentage of class time spent on lecturing increased by 31 percentage points and by 7 percentage points for small group work. The predicted percentage of class time spent on presentations decreased by 7 percentage points, 28 percentage points for independent student work, 14 percentage points for assessment, and 11 percentage points for experiential activities. Table 4.2 provides further details for the course format variable. Lastly, while course level did not have as many instances of significant relationships among the seven regression equations and seven models, it was the only variable that remained significant

between research questions 1a and 1b. The data indicated that for courses that were mainly juniors and seniors (compared to courses comprised mainly of freshman and sophomores), the predicted percentage of class time spent on presentations increased by 2.5 percentage points.

Table 4.3 provides details on the course level findings.

Table 4.1

Research Question 1: Summary of Gender Variable Utilizing OLS Multiple Regression Analysis on Time Spent on Pedagogical Practices

| Male | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|---------|-------------------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Model 1 | 0.045 ⁺ (0.025) | 0.013 (0.019) | -0.051** (0.017) | -0.002 (0.011) | -0.015 (0.017) | -0.007 (0.014) | -0.034* (0.016) |
| Model 2 | 0.045 ⁺ (0.025) | 0.013 (0.019) | -0.051** (0.017) | -0.002 (0.011) | -0.015 (0.017) | -0.007 (0.014) | -0.034* (0.016) |
| Model 3 | 0.044 ⁺ (0.025) | 0.013 (0.019) | -0.052** (0.017) | -0.004 (0.011) | -0.023 (0.018) | -0.013 (0.014) | -0.035* (0.016) |
| Model 4 | 0.049 ⁺ (0.025) | 0.013 (0.018) | -0.051** (0.017) | -0.001 (0.011) | -0.025 (0.017) | -0.012 (0.014) | -0.037* (0.016) |
| Model 5 | 0.050* (0.025) | 0.013 (0.019) | -0.051** (0.017) | 0.001 (0.011) | -0.018 (0.017) | -0.007 (0.013) | -0.035* (0.016) |
| Model 6 | 0.063* (0.026) | 0.008 (0.018) | -0.042* (0.016) | 0.001 (0.011) | -0.042* (0.018) | -0.021 (0.014) | -0.036* (0.016) |
| Model 7 | 0.060* (0.026) | 0.010 (0.018) | -0.042* (0.016) | 0.003 (0.011) | -0.032 ⁺ (0.018) | -0.015 (0.014) | -0.032* (0.016) |

Standard errors in parentheses

⁺ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.2

Research Question 1: Summary of Course Format Variable Utilizing OLS Multiple Regression Analysis on Time Spent on Pedagogical Practices

| Course Format | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|--|---------------------|---------------------|-----------------------|------------------------|--------------------------------------|----------------------|-------------------------------------|
| Model 1: On campus | 0.271*** (0.058) | -0.051 (0.043) | 0.056 (0.040) | -0.088*** (0.026) | -0.327*** (0.038) | -0.167*** (0.032) | -0.111** (0.037) |
| Model 2 | 0.306*** (0.053) | -0.063 (0.039) | 0.068+ (0.036) | -0.071** (0.024) | -0.273*** (0.035) | -0.124*** (0.029) | -0.107** (0.035) |
| Model 3 | 0.308*** (0.051) | -0.066+ (0.037) | 0.071* (0.034) | -0.069** (0.023) | -0.262*** (0.035) | -0.138*** (0.030) | -0.109** (0.033) |
| Model 4 | 0.321*** (0.048) | -0.049 (0.036) | 0.074* (0.032) | -0.055* (0.022) | -0.267*** (0.033) | -0.139*** (0.028) | -0.111*** (0.031) |
| Model 5 | 0.321*** (0.050) | -0.046 (0.037) | 0.069* (0.034) | -0.058* (0.023) | -0.277*** (0.033) | -0.126*** (0.028) | -0.109*** (0.033) |
| Model 1: Auxiliary location | 0.137 (0.094) | -0.057 (0.069) | 0.040 (0.065) | -0.113** (0.042) | -0.269*** (0.061) | -0.163** (0.051) | -0.165** (0.059) |
| Model 2 | 0.170+ (0.087) | -0.099 (0.064) | 0.034 (0.059) | -0.089* (0.039) | -0.209*** (0.057) | -0.132** (0.048) | -0.141* (0.056) |
| Model 3 | 0.168+ (0.087) | -0.098 (0.063) | 0.038 (0.058) | -0.083* (0.039) | -0.206*** (0.060) | -0.151** (0.050) | -0.136* (0.056) |
| Model 4 | 0.176* (0.085) | -0.070 (0.062) | 0.038 (0.057) | -0.068+ (0.038) | -0.212*** (0.058) | -0.153** (0.049) | -0.134* (0.054) |
| Model 5 | 0.179* (0.085) | -0.071 (0.063) | 0.034 (0.057) | -0.073+ (0.038) | -0.216*** (0.056) | -0.136** (0.046) | -0.137* (0.054) |
| Model 1: Combination of on campus and auxiliary | 0.183* (0.071) | -0.066 (0.052) | 0.071 (0.049) | -0.070* (0.032) | -0.322*** (0.047) | -0.181*** (0.039) | -0.082+ (0.046) |

| | | | | | | | |
|---------|---------------------|-------------------|-------------------|--------------------|----------------------|----------------------|-------------------|
| Model 2 | 0.217** (0.066) | -0.076 (0.049) | 0.062 (0.044) | -0.052+ (0.030) | -0.274*** (0.044) | -0.134*** (0.036) | -0.059 (0.043) |
| Model 3 | 0.215** (0.065) | -0.077 (0.047) | 0.068 (0.043) | -0.048 (0.029) | -0.263*** (0.045) | -0.149*** (0.038) | -0.062 (0.042) |
| Model 4 | 0.224*** (0.063) | -0.054 (0.046) | 0.074+ (0.042) | -0.037 (0.029) | -0.272*** (0.044) | -0.152*** (0.036) | -0.063 (0.040) |
| Model 5 | 0.227*** (0.064) | -0.053 (0.047) | 0.066 (0.043) | -0.040 (0.029) | -0.281*** (0.043) | -0.138*** (0.035) | -0.059 (0.041) |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Course Format (Distance Education)

Table 4.3

Research Question 1: Summary of Course Level Variable Utilizing OLS Multiple Regression Analysis on Time Spent on Pedagogical Practices

| Course Level: Mostly Juniors/Seniors | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|--------------------------------------|-------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Model 1 | -0.018 (0.028) | 0.007 (0.021) | 0.022 (0.020) | 0.022+ (0.013) | -0.027 (0.018) | -0.019 (0.015) | 0.024 (0.018) |
| Model 2 | -0.028 (0.025) | 0.010 (0.019) | 0.010 (0.017) | 0.026* (0.011) | -0.029+ (0.017) | -0.024+ (0.014) | 0.031+ (0.016) |
| Model 3 | -0.025 (0.025) | 0.005 (0.019) | 0.011 (0.017) | 0.023* (0.011) | -0.027 (0.018) | -0.023 (0.015) | 0.026 (0.016) |
| Model 4 | -0.023 (0.025) | 0.004 (0.019) | 0.013 (0.017) | 0.024* (0.011) | -0.028 (0.017) | -0.023 (0.014) | 0.024 (0.016) |
| Model 5 | -0.026 (0.025) | 0.007 (0.019) | 0.012 (0.017) | 0.027* (0.011) | -0.029+ (0.017) | -0.023+ (0.014) | 0.028+ (0.016) |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Course Format (Distance Education)

Regarding the results for regression equations 1ba – 1be, the following variables had many instances of significance: age, full time, general education course, course level, and institution size. Specifically for the faculty characteristics, in comparison to the strong significance of the gender variable from the previous set of regression equations, age and full time did not have as many instances of strong significance among the second set of regression equations; however, these two variables did have a few key instances of significance. For example, on average, as age increased by one year, there was a .1% increase in emphasizing *forming* a new idea or understanding from various pieces of information quite a bit or very often in the accounting classroom. Additionally, full time faculty were 17% more likely to emphasize *analyzing* an idea, experience, or line of reasoning in depth by examining its parts quite a bit or very much in the accounting classroom, 19% more likely to emphasize *forming* a new idea or understanding from various pieces of information quite a bit or very often in the accounting classroom, and 16% more likely to emphasize *overall* higher order learning quite a bit or very much in the accounting classroom. Table 4.4 and 4.5 provide a detailed breakdown of the results for age and full time, respectively utilizing marginal effects.

Table 4.4

Research Question 1: Summary of Age Variable Utilizing Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| Age | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------|-------------------|------------------|--------------------|---------------------|-------------------|
| Model 1 | 0.001 (0.002) | 0.001 (0.003) | -0.003 (0.003) | 0.009*** (0.003) | -0.000 (0.003) |
| Model 2 | -0.000 (0.002) | 0.002 (0.003) | -0.005 (0.003) | 0.008** (0.003) | -0.000 (0.002) |
| Model 3 | -0.000 (0.001) | 0.001 (0.003) | -0.005+ (0.003) | 0.007* (0.003) | -0.000 (0.002) |
| Model 4 | -0.000 (0.001) | 0.001 (0.002) | -0.005+ (0.003) | 0.008** (0.003) | -0.001 (0.002) |
| Model 5 | -0.001 (0.001) | 0.001 (0.003) | -0.004 (0.003) | 0.009*** (0.003) | -0.001 (0.002) |
| Model 6 | -0.000 (0.001) | 0.000 (0.002) | -0.005+ (0.003) | 0.008** (0.003) | -0.000 (0.002) |
| Model 7 | -0.001 (0.001) | 0.001 (0.003) | -0.004 (0.003) | 0.009*** (0.003) | -0.001 (0.002) |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.5

Research Question 1: Summary of Full Time Variable Utilizing Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| Full Time | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|-----------|-------------------|---------------------|-------------------|--------------------|--------------------|
| Model 1 | 0.030 (0.050) | 0.226*** (0.068) | 0.127 (0.078) | 0.211** (0.075) | 0.177** (0.066) |
| Model 2 | -0.013 (0.038) | 0.196** (0.068) | 0.087 (0.076) | 0.203** (0.074) | 0.127* (0.060) |
| Model 3 | 0.005 (0.040) | 0.131* (0.066) | 0.050 (0.076) | 0.140+ (0.075) | 0.090 (0.058) |
| Model 4 | 0.004 (0.040) | 0.129* (0.065) | 0.053 (0.075) | 0.126+ (0.075) | 0.076 (0.058) |
| Model 5 | -0.013 (0.039) | 0.191** (0.067) | 0.093 (0.075) | 0.189* (0.074) | 0.110+ (0.059) |
| Model 6 | 0.012 (0.036) | 0.069 (0.063) | 0.047 (0.072) | 0.091 (0.071) | 0.055 (0.055) |
| Model 7 | -0.007 (0.037) | 0.139* (0.065) | 0.070 (0.073) | 0.159* (0.071) | 0.094 (0.057) |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

For the set of course and institution variables, the following variables had many instances of significance: general education course, course level, and institution size. For general education courses, on average, courses that were selected as general education requirements by the accounting faculty members were 14.4% more likely to emphasize *analyzing* an idea, experience, or line of reasoning in depth by examining its parts quite a bit or very much in the accounting classroom; 13.6% more likely to emphasize *evaluating* a point of view, decision, or information source quite a bit or very often in the accounting classroom; and 14.3% more likely to emphasize *forming* a new idea or understanding from various pieces of information quite a bit or very often in the accounting classroom. Secondly, for course level, courses comprised of mainly juniors and seniors (compared to freshman and sophomores), were 10% more likely to emphasize *overall* higher order learning in the accounting classroom. Lastly, on average, for institution size, institutions with less than 10,000 student enrollments (as compared to institutions with more than 10,000 student enrollments) were 18% more likely to emphasize *evaluating* a point of view, decision, or information source quite a bit or very often in the accounting classroom. Refer to Table 4.6, Table 4.7, and Table 4.8 for a detailed breakdown of general education course, course level, and institution size variable findings, with the results displayed utilizing marginal effects.

Table 4.6

Research Question 1: Summary of General Education Course Variable Utilizing Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| General Education Course | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Model 1 | 0.125* (0.060) | 0.144* (0.065) | 0.119+ (0.067) | 0.152* (0.066) | 0.127* (0.061) |
| Model 2 | 0.049 (0.036) | 0.126* (0.064) | 0.144* (0.065) | 0.134* (0.065) | 0.086 (0.056) |
| Model 3 | 0.049 (0.036) | 0.145* (0.063) | 0.135* (0.065) | 0.147* (0.065) | 0.093+ (0.056) |
| Model 4 | 0.054 (0.037) | 0.157* (0.063) | 0.136* (0.064) | 0.136* (0.065) | 0.093+ (0.056) |
| Model 5 | 0.056 (0.038) | 0.135* (0.064) | 0.144* (0.064) | 0.123+ (0.066) | 0.085 (0.056) |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.7

Research Question 1: Summary of Course Level Variable Utilizing Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| Course Level: Junior/Senior | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|-----------------------------|------------------|-------------------------------|-------------------------------|-------------------|-------------------------------|
| Model 1 | 0.025 (0.038) | 0.079 (0.055) | 0.097 ⁺ (0.059) | 0.008 (0.059) | 0.086 ⁺ (0.051) |
| Model 2 | 0.023 (0.027) | 0.091 ⁺ (0.051) | 0.102 ⁺ (0.057) | 0.033 (0.057) | 0.104* (0.045) |
| Model 3 | 0.030 (0.027) | 0.074 (0.052) | 0.085 (0.057) | 0.003 (0.058) | 0.093* (0.045) |
| Model 4 | 0.033 (0.027) | 0.081 (0.051) | 0.083 (0.057) | -0.008 (0.057) | 0.090* (0.045) |
| Model 5 | 0.027 (0.027) | 0.097 ⁺ (0.051) | 0.097 ⁺ (0.056) | 0.017 (0.057) | 0.101* (0.045) |

Marginal effects; Standard errors in parentheses

⁺ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.8

Research Question 1: Summary of Institution Size Variable Utilizing Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| Institution Size | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|------------------|-------------------------------|-------------------------------|-------------------------------|-------------------|-------------------------------|
| Model 1 | 0.188 ⁺ (0.108) | 0.276 ⁺ (0.157) | 0.315 ⁺ (0.176) | -0.025 (0.171) | 0.133 (0.156) |
| Model 2 | 0.057 ⁺ (0.035) | 0.029 (0.059) | 0.157* (0.063) | 0.067 (0.063) | 0.087 ⁺ (0.049) |
| Model 3 | 0.054 (0.035) | 0.034 (0.059) | 0.163* (0.063) | 0.069 (0.064) | 0.090 ⁺ (0.049) |
| Model 4 | 0.051 (0.035) | 0.017 (0.059) | 0.158* (0.063) | 0.073 (0.064) | 0.092 ⁺ (0.049) |
| Model 5 | 0.052 (0.035) | 0.013 (0.058) | 0.153* (0.063) | 0.072 (0.064) | 0.088 ⁺ (0.049) |

Marginal effects; Standard errors in parentheses

⁺ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Inst Size (Very Small, >1,000 students)

Overall, concluding that for research questions one, the stronger significant relationships occurred among the variables of gender, course format, course level, and course general education requirement. Therefore, the data suggesting that course variables may influence faculty the most when deciding on pedagogical techniques. The specific variables that did not present as strong of relationships were as follows: age, citizenship, full time, race, rank, tenure, course size, course previously taught, and public institution. Further discussion on these results are provided in Chapter 5.

Research Question 2 and 3 Results

Research Question 2

Research question two aimed to understand what accounting faculty described as the reasons for choosing certain pedagogical practices in the accounting classroom. Answers to this research question were provided by faculty during interviews. As mentioned previously, to determine the sample of faculty to interview, I utilized the stronger instances of significant relationships suggested from research question one as a guide, which included faculty gender and various course specific variables (such as course format, course general education requirement, and course level). Further information on the faculty sample selection was discussed in the previous chapter.

Accounting faculty were first asked to describe what they believed was the reason as to why they chose to teach certain content and why they teach the way they do in their specific accounting classrooms. Many accounting faculty stated that there were multiple reasons as to why they chose certain pedagogical practices, thus I utilized the following coding techniques detailed in Table 4.9 to derive major themes. Examples of faculty responses are provided in the last column and their respective code category are provided in the first and second columns.

Table 4.9

Research Question 2 Codebook

| Code Category | Sub-Category | Examples of Faculty Responses |
|---------------------------------------|---------------------------------|--|
| How I was taught | | <ul style="list-style-type: none"> • “Because this is how I was taught. If it was good enough for me, its good enough for the students.” • “Influenced by my how my PhD professors taught.” |
| How others teach the same course | | <ul style="list-style-type: none"> • “Based on how others have taught the course at the university.” |
| Time | Time Constraints | <ul style="list-style-type: none"> • “Due to other job responsibilities.” • “Motivation level” |
| | Research Responsibilities | <ul style="list-style-type: none"> • “Research incentive for a tenure-track professor so why invest the time.” |
| Nature of the course / Course Type | | <ul style="list-style-type: none"> • “Whatever course objectives are.” • “Depth of the material.” • “How deep do I want to teach certain sections in the class?” • “Depends on material being taught, am I teaching Managerial or Auditing?” |
| Nature of the student / Student Level | | <ul style="list-style-type: none"> • “An intro class needs more hand holding due to the level of student; upper level classes can do it more on their own.” • “Belief on what the student needs.” • “How the students are reacting to the material?” • “Student’s experience level with the material.” |
| Profession | Market driven | <ul style="list-style-type: none"> • “Based on what is needed in current practice.” • “Heavily influenced by what is happening in practice.” |
| | Professional experience | <ul style="list-style-type: none"> • “Bringing in practical application from the most recent job I held prior to getting my PhD.” |
| Expectations | Accreditation | <ul style="list-style-type: none"> • “Accreditation standards, ensuring that students have problem solving skills, looking at lots of problems.” |
| | CPA Exam | <ul style="list-style-type: none"> • “What is expected or tested on the CPA exam.” |
| University Sponsored | University Learning Conferences | <ul style="list-style-type: none"> • “The University sponsors and hosts a conference on experiential learning.” |
| | University mission | <ul style="list-style-type: none"> • “University push of experiential learning, which is a part of the university and business school mission.” |

An overwhelming majority of the responses were included within two of the categories, course type and student level. All but three faculty members suggested responses that could be categorized within these two categories. Further examples of these types of responses included:

- Based on the level of the student and the class the student is in, introductory classes to accounting likely need more hand holding, while upper level courses can do more on their own.
- I focus on what the student in my class needs, and how that best fits into our curriculum at our institution.
- The student's experience level (between life and work) as well as background of student.
- Subject matter drives my teaching style, am I teaching a managerial introductory class? Am I teaching an audit or a systems course? The material lends itself to be taught differently.

Additionally, the responses in these two categories were suggested among all varieties of faculty (even when examining only responses among faculty demographics: gender, full time/part time, rank/tenure, course level, course sub-discipline, faculty at smaller or larger institutions, faculty that taught only undergraduate courses, or faculty that taught only graduate courses). Based on these responses, the overarching theme derived for this research question is as follows:

- Theme 1: A majority of accounting faculty stated that the course type and/or the student level were the driving factors for why they chose to utilize certain pedagogical practices in the accounting classroom.

The second largest response category (6 of 25 faculty members) included responses within the profession category. Expanding on the examples of responses provided by those few faculty members included:

- Experience in practice with a public accounting firm; as well as, consulting roles pursued after public accounting but prior to teaching really influence my teaching. For example, within the consulting role, I used a lot of active learning techniques to help practitioners understand how to learn, and I take this and apply it to my classroom settings.
- Experience from practice helps me to bring in practical application in the classroom
- The profession is moving towards an increase of using more data analytics. Data analytics is based a lot on what you can do rather than what you can say, and this should be a focus for our students in the classroom.
- First, I believe strongly that students need to develop critical thinking skills and most faculty do not teach how to think critically, they just ask students questions in hopes they will think critically. With that, I am heavily influenced by what is happening in practice. Tying this to my first thought, people in practice state critical thinkers should be able to develop questions and come up with data they need to answer those certain questions. Both items influence my teaching.

Of the six faculty that stated responses classified in the profession category, four of those faculty members were from institutions with more than 20,000 student enrollments and two from institutions with fewer than 20,000 student enrollments. Additionally, three were male and three were female, and the six faculty were spread among the ranks of lecturer, assistant, and associate professor. More notably, all but two of the faculty members had also previously taught a course in the “systems” sub-discipline within the accounting curriculum. However, one of the two faculty members that had not taught a systems course did state during the interview that their specific institution was currently looking to hire a systems professor (and this faculty member was on the search committee), and due to the rapidly changing accounting profession, finding a

systems professor was harder than normal. All of which could likely have impacted why this faculty member chose to respond in this manner.

Research Question 3

Research question three aimed at understanding if accounting faculty utilized pedagogical practices that are more apt to promote higher order skill sets in students; and if so, how are accounting faculty emphasizing these practices in their accounting classroom. To answer the first part of this research question, I asked accounting faculty during the interviews to quantify their percentage of pedagogical practices utilized within their current accounting classrooms. The responses that focused on pedagogical practices more apt to promote higher order skill sets included the following categories: discussion, case studies/group work, student presentations, and guest speakers. The following results are noted in Table 4.10. The data indicated 85% of undergraduate accounting faculty stated they spent less than 20% of class time on discussion; 27% of undergraduate accounting faculty spent less than 20% of class time on case studies/group work; and almost all undergraduate accounting faculty spent less than 20% of class time on presentations and guest speakers. Overall, on average, 78% of faculty spend less than 20% of class time on any the following pedagogical practices: discussion, case studies, student presentations or guest speakers.

Table 4.10

Percent of Interviewed Undergraduate Accounting Faculty that Spend time on Pedagogical Practices More Apt to Promote Higher Order Skill Sets in the Undergraduate Accounting Classroom

| Pedagogical practices more apt to promote higher order skills in the accounting classroom | 0% of Class Time | <20% Class Time | 20-49% Class Time | 50-74% Class Time | >75% Class Time |
|--|-------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Discussion | 69% | 15% | 4% | 8% | 4% |
| Case Studies/Group Work | 19% | 8% | 35% | 31% | 8% |
| Student Presentations | 92% | 8% | 0% | 0% | 0% |
| Guest Speakers | 88% | 12% | 0% | 0% | 0% |

Additionally, within the descriptive statistics, FSSE data also indicated that 60% of undergraduate accounting faculty spent less than 20% of class time on discussion; 74% of undergraduate accounting faculty spent less than 20% of class time on small group activities; 74% of undergraduate accounting faculty spent less than 20% of class time on small group activities; 90% of undergraduate accounting faculty spent less than 20% of class time on independent student work; 87% of undergraduate accounting faculty spent less than 20% of class time on assessment of student learning; and 90% of undergraduate accounting faculty spent less than 20% of class time on experiential activities. Overall, on average, 83% of undergraduate faculty spend less than 20% of class time on any the following pedagogical practices: discussion, small group activities, student presentations, independent student work, assessment of student learning, and experiential activities. Refer to Table 4.11 for a detailed breakdown of each survey question by survey response.

Table 4.11

Percent of FSSE Undergraduate Accounting Faculty that Spend Time on Pedagogical Practices More Apt to Promote Higher Order Skill Sets in the Undergraduate Accounting Classroom

| Pedagogical practices more apt to promote higher order skills in the accounting classroom | <20% Class Time | 20-49% Class Time | 50-74% Class Time | >75% Class Time |
|--|-----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| Discussion | 60% | 37% | 2% | 1% |
| Small Group Activities | 74% | 23% | 2% | 0% |
| Student Presentations or Performances | 95% | 4% | 1% | 0% |
| Independent Student Work | 90% | 7% | 1% | 2% |
| Assessment of Student Learning | 87% | 14% | 1% | 1% |
| Experiential Activities | 90% | 6% | 1% | 1% |

Thus, since similar results were noted from the qualitative interviews and FSSE data, this led to theme two:

- Theme 2: On average, a majority of accounting faculty (~78 – 83%) spend less than 20% of class time on pedagogical practices that are more likely to promote higher order learning skill sets in students.

In addition to quantifying pedagogical practices utilized in the accounting classroom, I also asked faculty during the interview sessions if they had heard of the term, “higher order thinking” or “higher order learning.” Of the 25 faculty members interviewed, 18 faculty members responded that “yes” that had heard of the term, five stated “maybe,” and two stated “no” they had not heard of the term. Of the seven faculty that responded “maybe” or “no,” five were male. Of those five males, four responded with maybe and one with no. No other distinguishing demographics or characteristics were noted among those seven faculty.

Subsequently, for those faculty that had heard of higher order thinking or higher order learning, I asked them to define the term. Using the faculty member’s provided definition, I categorized key words that were similar among all the responses. The key words included: apply, analyze, evaluate, create/form, synthesize, critical thinking, problem solve, data/data analytics, Bloom’s Taxonomy, deep learning, and cognitive level of learning. Of these categories of key words, the most utilized key word among the faculty were “analyze,” then “apply,” then next was “evaluate” and “critical thinking.” Similar trends were found when examining the data by faculty that taught undergraduate or graduate classes, as well as for gender and various course types, leading to theme three.

- Theme 3: A majority of faculty believe that higher order learning or higher order thinking is defined as utilizing pedagogical practices that promote techniques such as analysis and application of material.

Of the 25 accounting faculty interviewed, only two accounting faculty responded with definitions that included the peak of the higher order terms, such as create or form. Refer to Table 4.12 for a further detailed analysis of the key terms suggested by faculty. Further details on why this interview question is important are discussed in Chapter 5.

Table 4.12

The Number of Times Accounting Faculty Utilized Key Words to Define Higher Order Learning/Thinking

| Key Terms | # of Faculty that stated this term | % out of 25 Total Faculty | # of Faculty Teaching an Undergraduate Course that stated this term | % out of 19 Total Faculty Teaching an Undergraduate Course | # of Faculty Teaching a Graduate Course that stated this term | % out of 10 Total Faculty Teaching a Graduate Course |
|-----------------------------|------------------------------------|---------------------------|---|--|---|--|
| Apply | 9 | 40% | 5 | 26% | 4 | 40% |
| Analyze | 13 | 52% | 10 | 53% | 4 | 40% |
| Evaluate | 9 | 36% | 6 | 32% | 3 | 30% |
| Create/Form | 2 | 8% | 2 | 11% | 0 | 0% |
| Synthesize | 6 | 24% | 4 | 21% | 3 | 30% |
| Critical Thinking | 10 | 40% | 9 | 47% | 2 | 20% |
| Problem Solve | 3 | 12% | 3 | 16% | 0 | 0% |
| Data or Data Analytics | 3 | 12% | 1 | 5% | 2 | 20% |
| Bloom's Taxonomy | 4 | 16% | 4 | 21% | 0 | 0% |
| Deep Learning | 1 | 4% | 0 | 0% | 1 | 10% |
| Cognitive Level of Learning | 2 | 8% | 2 | 11% | 0 | 0% |

Research Question 3a

This research question expanded on research question three to understand for those accounting faculty that utilized pedagogical practices more apt to expose students to higher order skill sets, how are accounting faculty emphasizing these practices in their accounting classroom. Answers to this question were provided during the qualitative interviews. During the interview,

if accounting faculty stated they utilized a pedagogical practice (discussion, case studies, group work, presentations, guest speakers) more apt to expose students to higher order skill sets, I followed up with the faculty member asking them to expand on the pedagogical practice in more detail. After analyzing faculty responses, 19 of the 25 accounting faculty responded that at some point in their class session they did utilize some version of a pedagogical practice that would promote a higher order skill set during their classroom session. To better analyze the responses, I grouped the responses based on sub-disciplines, then based on the level of cognitive skill set the pedagogical practice was most likely promoting, such as: analysis, synthesis, evaluation, or creation. The following examples of faculty responses are provided in below, with the skill set in brackets and the pedagogical practice utilized in the classroom italicized.

Financial:

- [Synthesis] At the beginning of class, I provide open ended questions that combine two separate topics (one topic from the current class and one topic from a class the student has previously taken). The students then must think about the question presented and tie the topics together to answer the question. From here, we have an elongated *discussion* on the question prior to the start of class.
- [Analysis/Evaluate] I use an entire class to promote higher cognitive skill sets. For example, within two sub-topic areas (pensions and deferred taxes), I utilize the following method. I first pre-record a video which is lecture based and goes through basic terminology and a problem. Students can watch the video as many times as they want prior to class. Second, students come to class where we spend time in *discussion* on a more complex problem. Third, students are *grouped* together and assigned a *research project* on the topic. Students answer questions

based on an even more complex issue and must utilize their research skills to figure out how to solve the problem. We have not reviewed the answer in class so the students must use their skill sets to analyze the situation and evaluate what their next steps would be to answer the questions. The questions require students to utilize financial statement disclosures as well as think about implications of how certain transactions would affect the business moving forward.

- [Analysis/Evaluate/Create] Within our consolidations sub-topic in class, I provide hypothetical situations in a *case study* where students are given two sets of financial data for two separate companies. Students must create financial statements for the two companies, and then analyze each company's financial statements. Then, students must decide whether company A should consolidate company B. The *group of students* have to evaluate the financial statement impacts and provide a recommendation to provide to company A.

Managerial

- [Analysis] Prior to the start of the class, I *discuss* specific questions with the students. The questions focus on "how problems should be handled" before spending time reviewing the concept and problem with the students in class. I encourage students to always ask why and at the same time I remind students they should always provide a strong response to any and all alternative solutions for problem-solving.
- [Analysis/Evaluate] Through a specific *case study* done in *groups*, I use individual interests in the course to stimulate excitement about cases. Examples include analyzing fixed and variable costs for a bar. Then, to take students to the

next level, students must take into consideration non-financial information to be able to answer certain questions such as, “Why is Company A making the choice to do X?”

- [Analysis/Evaluate/Create] During the class, I have random quizzes that are given to students. Prior to each quiz, I map individual quiz questions to Bloom’s Taxonomy. Then, after the quiz, in class we *discuss* the questions and how they relate to Bloom’s taxonomy. I provide a pictorial image of the taxonomy and have a detailed *discussion* with the students when reviewing the quizzes about how each question tests the students either on "analyzing, evaluating, or forming" skill sets.

Audit

- [Analysis] I provide *open ended essay examinations* where students are presented with new information they have not seen before.
- [Analysis] I have the students *simulate* an audit environment throughout the entire course. Student go through the process of thinking about questions I bring up as we go along in the course, then I have the students recognize their own biases based on their responses and *discuss* with them how this may affect their decision making while being on an audit.

Systems

- [Analysis/Evaluate/Create] Within the *group case studies* I use in the class; I focus on the “evaluation” skill sets because this is more challenging for students. Therefore, within the cases, the students know the analysis they need to complete, but then I have them evaluate their own analysis. I ask them questions such as: do

you need more data?, what would you suggest to the client?, consequences if you did or didn't implement the recommendation? Students then form their own opinions based on their data within the case study.

- [Analysis/Evaluate/Create] I have a separate, special class session for students to complete an *in-class case study*. After students are taught basic skill sets in the classroom, students come to a special class session where they are presented with a dataset they have never seen before and must apply what they have learned in class to the dataset. From here, the students then analyze and evaluate the newly presented data. Lastly, the students create their own dashboards of findings from the data and *present* them to the class.
- [Analysis/Evaluate/Create] I have students become more comfortable with unstructured problems through *hands-on experience* in the classroom. For example, I give students a set of business transactions and then give them access to a certain accounting system (and provide little guidance on how the system functions or works). Students have to create their own accounts in the accounting system, build their own accounting database, and create their own financial statements. Afterwards, I have students critically evaluate their financial statements (i.e., asking questions such as: how confident are you that this set of financial statements is correct?).
- [Analysis/Evaluate/Create] Entire class is built on moving from application to analysis to evaluation to creation. For example, with the topic of "How to use Robotic Process Automation," I first teach students how to use the RPA technology, then I have the students start a *case study* where the students must

utilize the RPA (apply what they have learned), analyze the output of the data, and then evaluate the information provided by the RPA. After they have completed these steps, I pose a last question to the students where they have to start from scratch and create a brand-new solution using the RPA technology.

Tax

- [Analysis] Within class, we read exact wording provided by the IRS Code. Then, as a class, we have a *discussion* on the code section. I asking probing questions such as: what is the next step?, how do you interpret this?, how would this change in different scenarios? why does this matter?
- [Analysis/Evaluate] I use *group case-based learning* to engage students in higher order thinking. For example, I have my students think about building a startup company. I ask them various questions including: what are the goals?, should the company go public?, should the company be a C corporation, LLC, etc.?, what are the impacts if the company is a C corporation versus a LLC, etc.? Then, the students must submit a memo acting as a tax advisor to the company to provide the answers to the questions.
- [Analysis/Evaluate/Create] I break the class into *three separate groups*, and each group is responsible for understanding one companies set of financial statements and specific tax information. For example, one company may have a lot of deferred tax assets; one company pays little tax; and one company is thriving off of specialized tax credits. The students study the financials and tax information, and then come to class and we have a *debate* based on the questions I pose to them (i.e., should be tax cuts?). Students must form their own opinions about each

of these companies' specific situations to participate in the debate (and when this happens, students are forced to think about things from a different point of view in this scenario).

Other

- [Analysis] I focus on students being able to think outside the box and defend their answer. In our research policy class, I provide no solutions to the *cases* I give the students. We have long *discussions* in class about how sometimes there is no right answer, and that the student must understand how to defend their answer to substantiate their position well.

Overall, among the ~75% of accounting faculty (19 of 25) that utilized some version of a pedagogical practice more apt to promote higher order learning, roughly 12 of the 19 responses included a practice promoting analysis/evaluation and roughly eight of the 19 responses included a practice promoting analysis/evaluation/creation. However, if you removed the systems sub-discipline from this conclusion, roughly 11 of the 19 responses included a practice promoting analysis/evaluation and four of the 19 responses included a practice promoting analysis/evaluation/creation, leading to theme four.

- Theme 4: Except for the systems sub-discipline, for those accounting faculty that utilize a pedagogical practice more apt to promote higher order skill sets, faculty are likely promoting analysis skill sets more so than evaluation or creation skill sets.

Separately, for those faculty members that did not implement any or very little pedagogical practices most apt to promote higher level skill sets, (approximately six of the 25 faculty members), I asked a follow up question to those faculty members inquiring about why they chose not to implement these types of pedagogical practices that would promote higher

level learning. Faculty responded that a majority of their students were not ready to engage in higher order skill sets in their classroom or needed to stay at the “application” level more so than the analysis, evaluation, or creation skill set levels. Notable demographic or characteristic traits among these six faculty members included four of the six were associate professors, four of the six taught within the financial sub-discipline (sophomore and juniors), and four of the six taught at “smaller” schools. Examples of the responses included:

- My students do not really engage at the higher level of learning because I need to spend more time teaching them the information.
- My students stay more at the application level during class.
- Only about 1% of my students engage in higher order thinking, most of my students are still at the level of taking in all the information.
- I tell students to always think about “why” an answer is what it is and what it should be to help them engage in higher order skill sets. But that is the extent to our discussion.

Overall, most of these faculty members felt as if the students in their classroom were either not ready for any type of higher order skill set or still at the application skill set level and were not ready to move to the analysis, evaluation, or creation levels; and, this is why they chose not to utilize as many pedagogical practices more apt to promote higher order learning. This conclusion leading to the final, consolidate theme (which combines information from previous themes).

- Theme 5: Based on the quantitative and qualitative results, most faculty do not spend a lot of class time utilizing pedagogical practices more apt to promote higher order skill sets. Some faculty choose not to implement these practices due to the belief the student is not ready. However, with the exception of the systems sub-discipline, for those

accounting faculty that stated they did utilize a pedagogical practice that is more apt to promote higher order skill sets at some point in their class time, faculty are likely promoting application or analysis skill sets more so than evaluation or creation skill sets.

CHAPTER 5

DISCUSSION AND CONCLUSION

The following chapter provides a detailed discussion on the results provided in the previous chapter. Specifically, I first discuss the factors significantly associated with the pedagogical practices used by accounting faculty in the accounting classroom. Then, discuss the results on whether accounting faculty utilize pedagogical practices that expose students to higher order skills; and if so, how were accounting faculty emphasizing these practices in their accounting classroom.

Research Question 1 Discussion

To understand what factors are associated with the pedagogical practices used by faculty members in the accounting classroom, I first examined FSSE data. Specifically, I focused on the relationships between faculty, course, and institution characteristics and pedagogical practices as well as emphasis of higher order learning. Significant relationships occurred among the variables of gender, course format, general education course, and course level, with age and full time becoming significant in the second set of regression equations focused on the emphasis of higher order learning. However, in examining the results, from an overall perspective, more significant relationships existed for the set of course characteristics, suggesting that course type influences accounting faculty pedagogy the most.

Before discussing the course characteristics, I first provide a brief discussion on the set of faculty characteristics, gender, age and full time that had instances of significance. For gender, the results followed prior literature trends in that males were more likely to lecture and less likely

to spend time on group activities and experiential activities than females (Centra & Gaubatz, 2000; Nelson Laird et al., 2011; Zhou & Xu, 2007). Findings also showed that as age increased the more likely to emphasize *forming* new ideas in the accounting classroom. One could argue that this finding makes sense in the aspect that older faculty are likely more experienced than younger faculty and more likely to understand how to emphasize *forming* new ideas in the accounting classroom (representing the peak of the higher order learning skill sets). Lastly, regarding the variable of full time, full time faculty were more likely than part time faculty to emphasize *analysis*, *forming*, and *overall* higher order learning in the classroom. This finding follows some prior literature trends, as there is mixed literature to support the ideas as to whether full time or part time faculty are more apt to challenge their students and provide enhanced soft skill learning opportunities in the classroom (Benjamin, 2015; Cowley, 2010; Jackson et al., 2011; Jaegar & Eagen, 2009; Puziferro & Shelton, 2009). Overall, these findings suggest that the key faculty variables influenced pedagogy some but not as strongly as the set of course variables.

Secondly, course variables seem to have the most influence on accounting faculty pedagogy. For the most part, FSSE respondents who offered courses on campus (as compared to distance education courses) were more likely to spend class time lecturing and group work, and less likely to spend class time on independent student work, assessments, and experiential activities. Part of this finding is not surprising as the nature and structure of on campus classes makes it more likely these types of classes would lecture and utilize group work and less likely to spend time on independent student work. However, it was surprising that faculty members teaching on campus classes were less likely to spend class time on other pedagogical practices more apt to promote higher order skill sets, such as presentations, assessments, and experiential

activities. One could argue that face to face, on campus classes may be better suited or structured for these types of practices; however, the data indicates that face to face classes are not necessarily spending class time utilizing these types of practices but instead spending more time on lecturing. Therefore, while many faculty may argue that face to face classes are better for students, the data indicates that live classes are not necessarily spending the class time engaging in a multitude of practices that are more apt to promote higher order skill sets in students. Further research studies could examine the differences between live and online course structures to gain a better understanding of why this may be the case.

Furthermore, general education requirement and course level variables both had many instances of significance. If the faculty member stated their course was a “general education⁶” course, the emphasis of every aspect of higher order learning was more likely to occur in the classroom in model one and the emphasis of *analysis*, *evaluation*, and *forming* was more likely to occur in the classroom in models two through five. Many may argue that this finding may or may not be surprising. Perhaps, general education courses have less technical content needing to be taught; therefore, there is more time in the course to emphasize higher order learning skill sets. However, others may argue that because the content is more generic in a general education course, faculty may have a harder time adopting or finding content to promote higher order learning techniques. Specifically, within the accounting discipline, the former reasoning would most likely be suggested as many faculty may likely believe that general education courses would allow faculty more time to emphasize higher order learning skill sets and that non-tenure track faculty are also more apt to teach these types of courses.⁷ With this, non-tenure track

⁶ Approximately 30% of the courses were selected as general education courses in the data.

⁷ Within the FSSE data, instructor/lecturers taught 45% of the general education courses, and those not on tenure track taught 70% of the general education courses.

faculty likely have more time to devote to their curriculum building. However, no guidance was provided to faculty on the FSSE survey on defining “general education” course; thus, it was up to faculty interpretation to select whether their course was considered a “general education” requirement. Subsequently, the course level variable was the only variable that remained significant throughout. Based on the data, higher level courses (courses that consisted of mostly juniors and seniors) were more apt to utilize presentations and emphasize *overall* higher order learning in the accounting classroom. When examining this finding in partnership with the finding on general education course, the findings provide noteworthy information. As stated previously, the data indicated if the course was selected as a general education course that faculty were more likely to emphasize *applying, analysis, evaluating, forming* and *overall* higher order learning. Examining these two findings together is interesting because normally, general education courses consist of younger students (freshman and sophomores) rather than older students (juniors and seniors). However, the data also indicated that faculty who teach general education courses were more likely to emphasize higher order learning and courses that consist mostly of juniors and seniors were more likely to emphasize higher order learning. In examining the FSSE survey data in further detail, 29% of the courses were selected as a general education course, and the make-up of the 29% includes 13% of courses that consisted of juniors and seniors and approximately 15% of courses consisted of freshman and sophomores (1% was noted as “other”). More notably, in attempting to further understand these findings, it is important to know which courses in the accounting discipline accounting faculty are considering as general education courses or contain juniors or seniors since both types of classes are more apt to emphasize higher order learning. However, narrowing down which specific courses these represent within accounting discipline is rather tricky because the FSSE data does not

specifically state which course the faculty member is referring too. For example, one faculty member may think a general education requirement as Principles of Accounting, which is a general education requirement for all business majors and usually consist of freshman and sophomores. However, other accounting faculty members may have been thinking of the general education requirements within the accounting discipline specifically (which could consist of a variety of lower or upper level courses depending on the specific institution curriculum). Thus, further investigation into specific accounting classes faculty are referring to is highly beneficial in understanding faculty pedagogy and is further explored in the qualitative discussion.

Lastly, institution size also had a few instances of significance. Smaller institutions, (in terms of student enrollment less than 10,000 students), were more likely to emphasize *evaluation* in the accounting classroom. These findings are in alignment with some prior literature as some argue that smaller institutions have less students per class or less research focused faculty, and these faculty have more time to plan and incorporate pedagogical practices that emphasize these types of skill sets for students (Umbach & Wawrzynski, 2005). However, others argue in opposition, that this finding is surprising in that larger institutions are likely to have access to more resources to provide faculty members with current and advanced pedagogical techniques and also have more research focused faculty that may be aware of student learning theories and how pedagogy may impact student learning (Crawley, 1995).

Research Question 1 Conclusion. In conclusion, one resulting takeaway. Course variables are a distinguishing factor when attempting to understand accounting faculty pedagogy. The FSSE data does not provide any further specific course information related to the sub-disciplines of accounting. Therefore, further investigation into the differences in specific

accounting courses and subdisciplines is highly beneficial to provide more context about accounting faculty pedagogy. This is explored and discussed through the qualitative analysis.

Research Question 2 Discussion

To gain further understanding on research question one, I asked accounting faculty to describe the reasons for choosing certain pedagogical practices in the accounting classroom through interviews. As described in the results section, theme one was noted among the answers provided by faculty.

- Theme 1: A majority of accounting faculty stated that the course type and/or the student level were the driving factors for why they choose to utilize certain pedagogical practices.

This theme is not surprising as likely this is the case for most faculty, as an overwhelming majority of faculty stated that the nature of the course and nature of the student were among the top two factors that affected the content and their style of teaching. Faculty were very quick to state that students within each course were at different levels. For example, most of the faculty teaching within the sub-disciplines of financial and managerial accounting taught sophomores or juniors; while faculty teaching within the sub-disciplines of systems, audit, or tax taught juniors or seniors. Faculty would immediately suggest that based on their specific sub-discipline (and thus, student in their class) this would best lead them to their approach or style to teaching.

However, what is interesting to note is that most faculty members that taught within the sub-disciplines of financial, managerial, or tax accounting stated they focused more on delivery of content (lecture style) and believed students were not a level yet where they could be taught order higher order skill sets. However, those faculty members within the sub-disciplines of systems or audit believed that their students were at a high enough level. Slightly contradictory since some of the faculty within the financial, managerial, and tax sub-discipline taught a

mixture of junior and senior level students, and faculty within the systems or audit sub-disciplines also taught juniors and seniors.

Additionally, the more noteworthy part of this theme was the lack of responses in the category of professional experience or external accounting market. Only six faculty members stated that professional experience or the external accounting market affected their teaching content or teaching style. Part of this finding does make sense in that four of those six faculty members taught within the systems sub-discipline; and, due to the nature of the content in the accounting systems course, we would expect that these systems faculty members would likely be influenced by how the accounting market is changing. However, it is surprising that more faculty members did not state that the external accounting market or profession influences their teaching content or practices. This is critical because as accounting students graduate and look for employment within the accounting profession, those students who have not developed those higher order skill sets may be at a disadvantage in attempting to find employment or a disadvantage once they have found employment but trying to advance in their careers.

Research Question 3 Discussion

Research question three sought to understand if accounting faculty utilize pedagogical practices in the accounting classroom that expose students to higher order skills; and if so, how are accounting faculty emphasizing these practices in their accounting classroom. The following additional themes were noted from the results section:

- Theme 2: On average, a majority of accounting faculty (~78 – 83%) spend less than 20% of class time on pedagogical practices that are more likely to promote higher order learning skill sets in students.

- Theme 3: A majority of faculty believe that higher order learning or higher order thinking is defined as utilizing pedagogical practices that promote techniques such as application and analysis of material.
- Theme 4: Except for the systems sub-discipline, for those accounting faculty that utilize a pedagogical practice more apt to promote higher order skill sets, faculty are likely promoting analysis skill sets more so than evaluation or creation skill sets.
- Combined Theme: Based on the quantitative and qualitative results, most faculty do not spend a lot of class time utilizing pedagogical practices more apt to promote higher order skill sets. Some faculty choose not to implement these practices due to the belief the student is not ready. However, with the exception of the systems sub-discipline, for those accounting faculty that stated they did utilize a pedagogical practice that is more apt to promote higher order skill sets at some point in their class time, faculty are likely promoting application or analysis skill sets more so than evaluation or creation skill sets.

Based on these themes, it seems as if accounting faculty are not utilizing a good portion of their class time on pedagogical practices that promote enhanced higher order skill sets. Both interview and FSSE data indicated that accounting faculty focus more class time on *applying* and *analyzing* information in their classroom more so than *evaluating* or *creating/forming* new information. This was confirmed when speaking with faculty as when faculty were asked to explain higher order learning, a majority of faculty utilized the terms apply and analyze. Hence, it seems as though accounting faculty may benefit from additional insight into what pedagogical practices promote certain higher order skill sets and how they can alter their current practices to promote enhanced higher order skill sets in students.

These are critical findings due to the nature of Bloom's (1956) taxonomy, in that *evaluation* and *creation* are the peak of the higher order skill sets. Combining this with the accounting discipline and profession, as technology continues to rapidly advance over time, skill sets such as *evaluation* and *creation* will become more important than *application* and *analysis*. This is because emerging technologies, such as robotic process automation, machine learning, and artificial intelligence, are currently being taught to apply and analyze information without human intervention (Kokina & Davenport, 2017); and, thus, accountants will need to be able to take the information analyzed by the technology and *evaluate* the results. Accountants will then need to be able to critically think about how to *form* or *create* new information that will be valuable for their client from the previous analyzed and evaluated information. This will be a crucial skill set for all accounting students as they progress from their higher education to future careers, especially as the rate of emerging technologies is rapidly increasing.

Is it evident from the interviews that some faculty are beginning to adapt their curriculums but having additional resources available for them would facilitate this process (Tanaka, Cooper, Allred, Arguello, Bourke, Branch, Cadena, & Zawistoski, 2019). For example, Tanaka et al. (2019) suggested that many business faculty struggle to find appropriate materials for their curricula or if they found appropriate materials, the cost to the faculty or student was too high. Therefore, faculty were encouraged to partner with librarians to help in assisting with finding lower cost materials and with the center for teaching and learning (CTL). On campus CTL's help faculty in understanding how they can adapt their specific curriculum for their students (best pedagogical practices), as well as, share with faculty how they might be able to access additional training on pedagogical practices. Additionally, deans and provosts could also

encourage faculty members to develop enhanced pedagogy by rewarding those who spend time enhancing their curriculums to encourage higher order instruction.

Conclusion

Faculty members play a key role in the teaching and learning environment, and there are many factors that influence a faculty members choice of instructional delivery. This is an important area to focus on due to the recent demand of higher order skill sets needed in students. Regardless of discipline, all students benefit from increased higher order skill sets as this allows them to solve complex issues, develop innovative ideas and derive insightful conclusions. However, specifically for accounting students, accounting students will need to have these skill sets in addition to their accounting technical expertise to best partner with the emerging technologies within the profession (Low et al., 2016; Davidson, 2016). Therefore, accounting faculty should be taking this into consideration and implementing pedagogical practices to the accounting curriculum that promote enhanced higher order skill sets in order to best prepare students for their careers (AACSB, 2018; Horizons 2025 Report, 2011; Low et al., 2016). To understand more about faculty pedagogical practices, this study utilized a mixed methods approach to examine the factors associated with the pedagogical practices used by accounting faculty in the accounting classroom, if accounting faculty utilize pedagogical practices that expose students to higher order skills; and if so, how are accounting faculty emphasizing these practices in their accounting classroom?

Overall, there is room for improvement for accounting faculty in the area of emphasizing enhanced higher order skill sets in their classrooms. Since the accounting discipline can vary drastically and has multiple sub-disciplines, the set of course characteristics influenced pedagogy the most. However, more notably was the lack of impact that the accounting market or

profession had on accounting faculty's pedagogical practices. It is very surprising that only six of 25 faculty members mentioned that the accounting profession has an impact on how they teach their students. This is critical as accounting curriculums will soon become outdated if faculty are not considering how the profession is changing, which will ultimately lead to an unprepared student for the accounting profession.

Additionally, research question three focused on understanding if accounting faculty utilized pedagogical practices that expose students to higher order skills; and if so, how are accounting faculty emphasizing these practices in their accounting classroom. As hypothesized, accounting faculty are not utilizing a lot of class time on pedagogical practices that are the more apt to emphasize higher order learning; and, for those that believe they are emphasizing these skill sets, most faculty are still focusing on application or analysis skill sets more so than evaluation and creation. While the content within specific sub-disciplines of accounting (i.e., systems) may lend itself to be easier to incorporate these higher order skill sets through various pedagogical practices (such as case studies and student projects), other faculty members have provided exemplary examples of how these skill sets can be incorporated into each sub-discipline. Thus, it may be helpful for faculty members to think about attending more academic or professional conferences to gain additional insights into how they can incorporate this type of learning into the classroom. When faculty were asked if they attended any types of professional activities that might influence their pedagogy, only 13 of the faculty (52%) stated they did which indicates there is room for improvement in this area. By having faculty attend these types of activities and conferences more regularly, this may help impact specific faculty pedagogy as faculty have the opportunity to talk with other academics as well as practitioners during this time. For example, the American Accounting Association hosts numerous teaching and learning

conferences available for accounting faculty to learn best practices and notable items that should be incorporated into the accounting curriculum and classroom. There are other associations that also offer various professional activities for accounting faculty, but this is provided as one example of how accounting faculty could become more involved. Possible future research areas might include examining the professional development of accounting faculty and reasons why faculty may choose or not choose to attend these types of conferences.

In addition to professional activities and conferences, it also may be beneficial for accounting PhD programs to consider incorporating a teaching and learning aspect into their PhD curriculum. During the interviews, many of the accounting faculty stated their PhD programs did not focus on teaching and learning; and thus, had little background of best practices prior to entering the classroom. Prior research confirms this in that many accounting PhD faculty confirm they were self-taught when it comes to pedagogy (Dunn, Hooks, & Kohlbeck, 2016). This may be an area of improvement for PhD programs to consider since their students will likely graduate and have a mixture of both research and teaching responsibilities. Again, this is another area of future research focusing on the specific details of PhD programs and why these programs may not integrate teaching and learning into their PhD curriculums.

Furthermore, most accounting students enter the accounting profession right after graduation; and thus, if the profession is demanding the increase of higher order skill sets in the profession, accounting faculty should become more aware and think about how to update their curriculum as best as possible to incorporate practices that promote these skill sets. If accounting faculty do not start or continue to enhance their current pedagogical practices that promote higher order skill sets in the accounting classrooms, accounting students will likely be at a disadvantage during the hiring process or not be as prepared for their careers within the

accounting profession. This has many implications as accounting employers may start looking elsewhere to hire graduating students if the accounting students are not as well versed in these higher order skill sets. Future research focused on accounting employers and the profession may also provide additional insight for accounting faculty to best understand how faculty can prepare their students for their future role in the profession.

Lastly, the research questions were specific to accounting faculty; however, many of these findings are beneficial for all faculty across higher education institutions. As previously mentioned, emerging technologies are quickly advancing in the accounting profession, but this is not specific to the accounting profession (Freeman, McRae, O'Neill-Vivanco, & Center, 2018). Two examples, such as robotic process automation and artificial intelligence, will likely be entering into other professions, such as computer science, engineering, etc. and changing the dynamic of these professions, as well (Makridakis, 2017). As discussed earlier, the publicly available FSSE data indicated that all faculty are starting to implement types of pedagogical practices more apt to promote higher order skill sets (with other faculty more so than accounting faculty), but there is still a large percentage of faculty that are utilizing pedagogical practices not apt to emphasize higher order skills and could benefit from understanding more about enhanced learning environments for their specific curriculums. Thus, it is important for all faculty in higher education to think about what industries their students may be entering after graduation, how technologies may be changing those jobs, and what specific enhanced higher order skill sets the students should have prior to graduating. Similar to the recommendation for accounting faculty, all faculty should consider how to implement pedagogical practices that promote enhanced higher order skill sets into their curriculums and might consider attending more academic/professional conferences to gain further insight on best practices.

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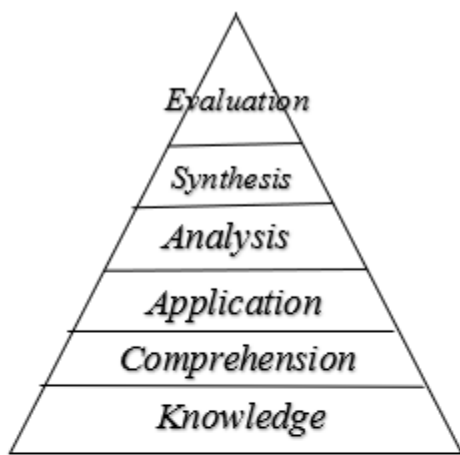
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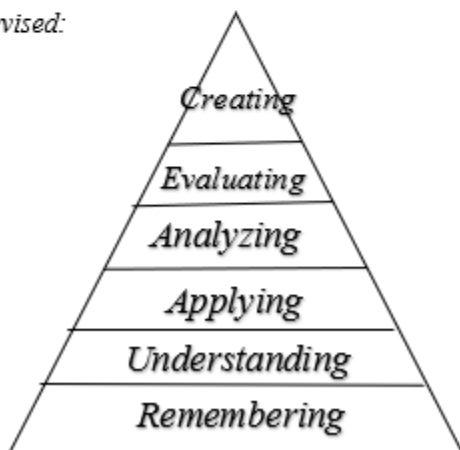
Appendix A

Bloom's (1956) Original and Revised Taxonomy

Original:

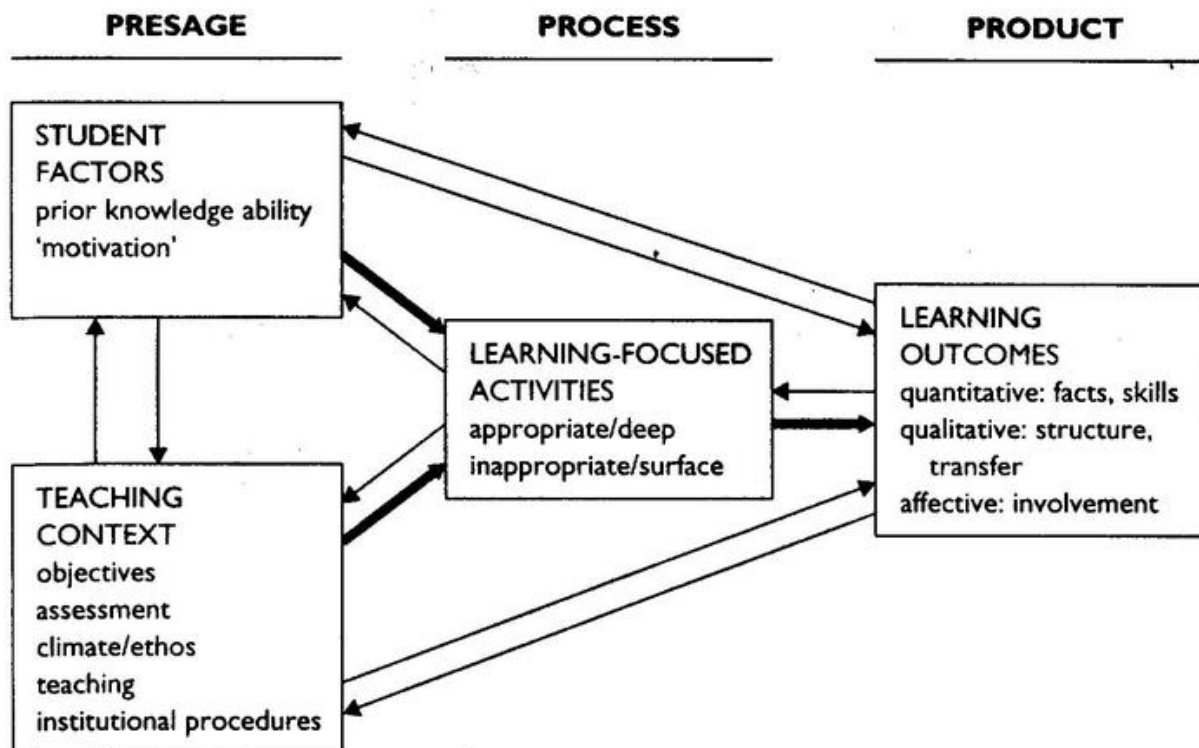


Revised:



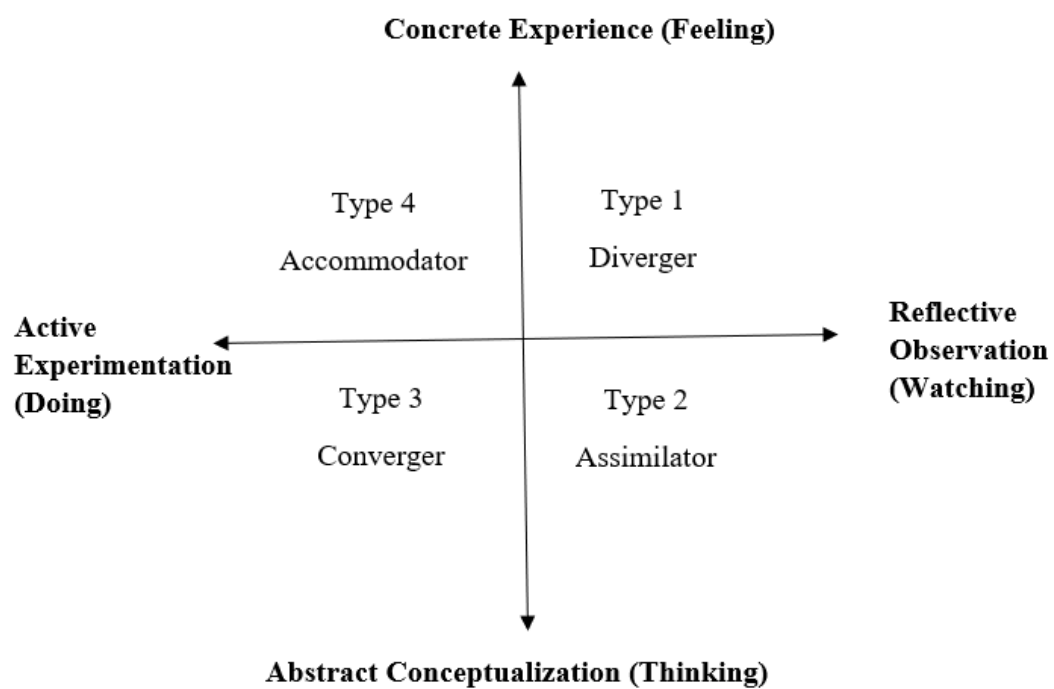
Appendix B

Bigg's 3P Learning Model (1987)



Appendix C

Kolb's (1984) Four Types of Learning Styles



Appendix D

FSSE 2017 Codebook: General discipline of faculty appointment/selected course section

| | | |
|--|---|---|
| Arts & Humanities | 47 = Geography | 93 = Materials engineering |
| 1 = Arts, fine and applied | 48 = International relations | 94 = Mechanical engineering |
| 2 = Architecture | 49 = Political science | 95 = Petroleum engineering |
| 3 = Art history | 50 = Psychology | 96 = Software engineering |
| 4 = English (language and literature) | 51 = Sociology | 97 = Other engineering |
| 5 = French (language and literature) | 52 = Other social sciences | Health Professions |
| 6 = Spanish (language and literature) | Business | 98 = Allied health |
| 7 = Other language and literature | 53 = Accounting | 99 = Dentistry |
| 8 = History | 54 = Business administration | 100 = Health science |
| 9 = Humanities (general) | 55 = Entrepreneurial studies | 101 = Health technology (medical, dental, laboratory) |
| 10 = Music | 56 = Finance | 102 = Healthcare administration and policy |
| 11 = Philosophy | 57 = Hospitality and tourism | 103 = Kinesiology |
| 12 = Religion | 58 = International business | 104 = Medicine |
| 13 = Theater or drama | 59 = Management | 105 = Nursing |
| 14 = Other fine and performing arts | 60 = Management information systems | 106 = Nutrition and dietetics |
| 15 = Other humanities | 61 = Marketing | 107 = Occupational safety and health |
| Bio. Sciences, Ag., & Natural Resources | 62 = Organizational leadership or behavior | 108 = Occupational therapy |
| 16 = Biology (general) | 63 = Supply chain and operations management | 109 = Pharmacy |
| 17 = Agriculture | 64 = Other business | 110 = Physical therapy |
| 18 = Biochemistry or biophysics | Comm., Media, & Public Relations | 111 = Rehabilitation sciences |
| 19 = Biomedical science | 65 = Communications (general) | 112 = Speech therapy |
| 20 = Botany | 66 = Broadcast communications | 113 = Veterinary science |
| 21 = Cell and molecular biology | 67 = Journalism | 114 = Other health professions |
| 22 = Environmental science/studies | 68 = Mass communications and media studies | Social Service Professions |
| 23 = Marine science | 69 = Public relations and advertising | 115 = Criminal justice |
| 24 = Microbiology or bacteriology | 70 = Speech | 116 = Criminology |
| 25 = Natural resources and conservation | 71 = Telecommunications | 117 = Forensics |
| 26 = Natural science | 72 = Other communications | 118 = Justice administration |
| 27 = Neuroscience | Education | 119 = Law |
| 28 = Physiology and developmental biology | 73 = Education (general) | 120 = Military science |
| 29 = Zoology | 74 = Business education | 121 = Public administration, policy |
| 30 = Other agriculture and natural resources | 75 = Early childhood education | 122 = Public safety and emergency management |
| 31 = Other biological sciences | 76 = Elementary, middle school education | 123 = Social work |
| Phys. Sciences, Math., & Computer Science | 77 = Mathematics education | 124 = Urban planning |
| 32 = Physical sciences (general) | 78 = Music or art education | Other disciplines |
| 33 = Astronomy | 79 = Physical education | 125 = Computer information systems |
| 34 = Atmospheric science (including meteorology) | 80 = Secondary education | 126 = Family and consumer studies |
| 35 = Chemistry | 81 = Social studies education | 127 = General studies |
| 36 = Computer science | 82 = Special education | 128 = Information systems |
| 37 = Earth science (including geology) | 83 = Other education | 129 = Information technology |
| 38 = Mathematics | Engineering | 130 = Liberal arts and sciences |
| 39 = Physics | 84 = Engineering (general) | 131 = Multi, Interdisciplinary studies |
| 40 = Statistics | 85 = Aero-, astronautical engineering | 132 = Network security and systems |
| 41 = Other physical sciences | 86 = Bioengineering | 133 = Other computer science and technology |
| Social Sciences | 87 = Biomedical engineering | 134 = Parks, recreation, leisure studies, sports mgmt. |
| 42 = Social sciences (general) | 88 = Chemical engineering | 135 = Professional studies (general) |
| 43 = Anthropology | 89 = Civil engineering | 136 = Technical, vocational studies |
| 44 = Economics | 90 = Computer engineering and technology | 137 = Theological studies, ministry |
| 45 = Ethnic studies | 91 = Electrical or electronic engineering | 138 = Other, not listed |
| 46 = Gender studies | 92 = Industrial engineering | -9 = Faculty did not receive this question (DAcrscode only) |

Appendix E

Qualitative Analysis Consent Form and Interview Questions

UNIVERSITY OF GEORGIA
 CONSENT LETTER FOR DISSERTATION STUDY:
 Accounting Faculty Pedagogy: Examining What Factors Lead Accounting Faculty to Emphasize Higher Order Learning in
 the Accounting Classroom?

Dear Participant,

My name is Holly Hawk and I am a faculty member in the Accounting Department at the University of Georgia. I am inviting you to take part in a research study that will help me complete my dissertation studies.

For my dissertation, I am examining accounting faculty pedagogy and utilizing a two-part mixed methods approach. The first part is a quantitative analysis designed to examine the relationships between faculty demographics and pedagogy per the Faculty Survey of Student Engagement. The second part is a qualitative analysis designed to examine further details about faculty's choice of pedagogy in the accounting classroom.

I am hoping you might be willing to help me in completing the second portion of my study, the qualitative analysis. If you agree to take part in this study, we will spend approximately 30 minutes to an hour during a day of your choice talking briefly over the phone about your teaching practices employed in the accounting classroom.

Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. This form is designed to give you the information about the study so you can decide whether to be in the study or not. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information. When all your questions have been answered, you can decide if you want to be in the study or not. This process is called "informed consent." A copy of this form will be given to you. Please find my dissertation chair and principal investigator listed below.

| | | | |
|-------------------------|--|------------------|---|
| Principal Investigator: | Rob Toutkoushian | Co-Investigator: | Holly Hawk |
| | Institute of Higher Education | | Tull School of Accounting & Institute of Higher Education |
| | rtoutkou@uga.edu | | hrhawk@uga.edu |

Your responses in our phone conversation will help us understand in more detail about why and how accounting faculty are implementing enhanced soft skills within their curriculum.

Participation is voluntary. You can refuse to take part or stop at any time without penalty. The questions are not designed to make you uncomfortable, but if questions do arise that make you feel uncomfortable. You can skip these questions if you do not wish to answer them.

Research records include my notes taken during the conversation and a recording of the conversation. I am planning to record the interview to accurately capture your responses and will destroy these recordings after transcription. You may still participate if you choose to not have the conversation recorded. If so, please provide notice prior to our scheduled interview. Research records will be labeled with study IDs that are linked to you by a separate list that includes your email address. This list will be destroyed once we have finished collecting information from all participants. De-identified information obtained from this research may be used for future studies (or shared with other researchers) without obtaining your additional consent.

If you are interested in participating or have further questions about this research before deciding, please feel free to call or email me at 404-513-1534, hrhawk@uga.edu. If you have any complaints or questions about your rights as a research volunteer, contact the IRB at 706-542-3199 or by email at IRB@uga.edu.

Please keep this letter for your records.

Sincerely,



Holly Hawk

Appendix E (cont.)

Demographic Questions:

1. What is your current academic rank?
 - a. How long have you been at this rank?
2. Are you tenured? If yes, for how long?

Pedagogical Questions:

3. What influences your teaching style (the practices you utilize to teach in the classroom and the content you use)?
4. Which accounting classes have you taught this past year?
 - a. What level of students are in these classes?
5. Talking through your classes within X sub-discipline (i.e., Financial, Audit/Systems, Tax, Managerial), can you describe your current teaching style?
 - a. Why do you teach using X practices?
 - b. Have you made any changes in the last few years? What influenced the change?
 - c. What professional development activities have you been involved over the past few years? Planning to attend?
 - d. Do these professional activities influence your teaching style?
6. [If multiple classes taught] Moving into X sub-discipline, is your teaching style similar or different?
 - a. Ask Question 5.
7. Do you see any pedagogical changes needed on the horizon in accounting from an overall standpoint?
8. Have you heard of the term “higher order learning” or “higher order thinking?”
9. Do you have your students engage in higher order learning in your classroom?
 - a. [Yes] How do you have your students engage in this type of learning in your classes?
 - b. [No] What are some reasonings as to why this is the case?

Appendix F

Research Question 1 Model 1: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|---|--------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|----------------------------------|
| Male | 0.036 (0.027) | 0.015 (0.020) | -0.049** (0.019) | -0.005 (0.012) | -0.016 (0.018) | -0.002 (0.014) | -0.029+ (0.017) |
| Age | -0.001 (0.001) | 0.000 (0.001) | -0.002* (0.001) | -0.000 (0.001) | -0.000 (0.001) | -0.000 (0.001) | -0.000 (0.001) |
| U.S. Citizen | 0.045 (0.093) | 0.030 (0.068) | -0.028 (0.064) | -0.008 (0.042) | -0.008 (0.061) | 0.057 (0.050) | 0.021 (0.058) |
| Full Time | -0.060+ (0.035) | 0.012 (0.026) | 0.042+ (0.025) | -0.001 (0.016) | 0.026 (0.024) | -0.002 (0.020) | 0.055* (0.023) |
| Race: American Indian or Alaska Native | -0.081 (0.160) | -0.144 (0.117) | 0.010 (0.110) | -0.049 (0.070) | -0.174 (0.146) | 0.021 (0.087) | -0.076 (0.100) |
| Race: Asian | 0.087+ (0.049) | 0.017 (0.036) | -0.057+ (0.034) | -0.004 (0.023) | -0.015 (0.032) | 0.079** (0.026) | -0.049 (0.030) |
| Race: Black or African American | -0.121+ (0.062) | 0.080+ (0.047) | 0.075+ (0.043) | 0.030 (0.028) | 0.020 (0.041) | 0.029 (0.035) | -0.001 (0.039) |
| Race: Hispanic or Latino | 0.007 (0.070) | 0.052 (0.053) | 0.038 (0.048) | 0.007 (0.031) | -0.041 (0.050) | 0.020 (0.038) | 0.011 (0.043) |
| Race: Native Hawaiian or Pacific Islander | 0.025 (0.231) | 0.156 (0.169) | -0.013 (0.159) | -0.042 (0.101) | -0.030 (0.151) | -0.077 (0.125) | 0.037 (0.144) |
| Race: Other | -0.113 (0.139) | 0.204* (0.102) | 0.061 (0.095) | -0.008 (0.061) | -0.008 (0.104) | 0.023 (0.075) | 0.000 (0.086) |

| | | | | | | | |
|---|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|
| Race: I prefer not to respond | 0.025 (0.051) | 0.007 (0.038) | -0.026 (0.039) | -0.034 (0.024) | -0.053 (0.035) | 0.008 (0.028) | -0.015 (0.034) |
| Tenured Associate Professor | -0.060 (0.047) | -0.008 (0.035) | -0.008 (0.033) | -0.034 (0.021) | -0.034 (0.031) | -0.020 (0.026) | 0.036 (0.030) |
| Tenured Assistant Professor | 0.011 (0.098) | 0.011 (0.072) | -0.059 (0.068) | -0.044 (0.043) | 0.043 (0.064) | 0.034 (0.053) | -0.035 (0.061) |
| Tenured Instructor or Lecturer | 0.135 (0.156) | -0.055 (0.114) | -0.065 (0.107) | -0.048 (0.068) | -0.102 (0.102) | 0.026 (0.085) | -0.031 (0.097) |
| On Tenure Track – Associate Professor | 0.076 (0.095) | -0.053 (0.070) | -0.030 (0.065) | -0.028 (0.045) | -0.068 (0.062) | -0.052 (0.052) | -0.001 (0.060) |
| On Tenure Track – Assistant Professor | -0.068 (0.045) | 0.000 (0.034) | 0.012 (0.032) | -0.014 (0.020) | -0.046 (0.030) | 0.014 (0.025) | 0.045 (0.029) |
| Not On Tenure Track – Professor | -0.056 (0.094) | 0.043 (0.076) | 0.042 (0.071) | 0.083* (0.041) | -0.067 (0.062) | -0.040 (0.051) | 0.123* (0.059) |
| Not On Tenure Track – Associate Professor | 0.011 (0.082) | 0.000 (0.063) | 0.020 (0.057) | -0.002 (0.036) | 0.004 (0.054) | 0.006 (0.047) | -0.002 (0.051) |
| Not On Tenure Track – Assistant Professor | 0.030 (0.074) | -0.065 (0.055) | 0.025 (0.051) | 0.003 (0.033) | -0.058 (0.049) | 0.020 (0.041) | 0.032 (0.047) |
| Not On Tenure Track – Instructor/Lecturer | 0.010 (0.041) | -0.045 (0.031) | -0.015 (0.029) | -0.041* (0.019) | -0.044 (0.027) | -0.010 (0.023) | 0.003 (0.026) |
| Tenure not offered at institution - Professor | -0.131 (0.079) | -0.007 (0.061) | 0.010 (0.053) | -0.056 (0.034) | -0.099+ (0.055) | -0.054 (0.043) | 0.106* (0.050) |
| Tenure not offered at institution – Associate Professor | -0.011 (0.069) | 0.048 (0.052) | -0.021 (0.047) | -0.015 (0.032) | -0.112* (0.045) | 0.015 (0.038) | -0.014 (0.043) |
| Tenure not offered at institution – Assistant Professor | -0.031 (0.083) | -0.038 (0.061) | 0.011 (0.057) | -0.038 (0.036) | -0.067 (0.054) | 0.025 (0.045) | -0.001 (0.052) |

| | | | | | | | |
|--|---------------------|-------------------|-------------------|----------------------|----------------------|----------------------|---------------------|
| Tenure not offered at institution – Instructor/Lecturer | 0.017 (0.065) | -0.036 (0.048) | 0.017 (0.046) | 0.010 (0.029) | -0.042 (0.044) | 0.015 (0.035) | 0.031 (0.041) |
| Course Student Level: Mostly Junior/Senior | -0.018 (0.028) | 0.007 (0.021) | 0.022 (0.020) | 0.022+ (0.013) | -0.027 (0.018) | -0.019 (0.015) | 0.024 (0.018) |
| Course Size: 21 - 30 | 0.063 (0.039) | -0.019 (0.029) | 0.013 (0.027) | 0.009 (0.017) | 0.004 (0.025) | 0.020 (0.021) | -0.028 (0.024) |
| Course Size: 31 - 40 | 0.074+ (0.043) | -0.021 (0.032) | 0.043 (0.030) | 0.012 (0.020) | 0.007 (0.029) | 0.022 (0.024) | -0.046 (0.028) |
| Course Size: 41 - 50 | 0.039 (0.058) | 0.002 (0.044) | 0.051 (0.040) | -0.025 (0.026) | -0.012 (0.038) | 0.000 (0.031) | -0.072* (0.037) |
| Course Size: 51 - 100 | 0.129* (0.058) | -0.043 (0.042) | 0.011 (0.040) | -0.021 (0.026) | 0.014 (0.038) | -0.009 (0.031) | -0.065+ (0.037) |
| Course Size: 100+ | -0.032 (0.075) | 0.058 (0.056) | 0.045 (0.052) | -0.050 (0.033) | -0.064 (0.053) | -0.019 (0.041) | 0.013 (0.047) |
| Course Format: On campus | 0.271*** (0.058) | -0.051 (0.043) | 0.056 (0.040) | -0.088*** (0.026) | -0.327*** (0.038) | -0.167*** (0.032) | -0.111** (0.037) |
| Course Format: Auxiliary location | 0.137 (0.094) | -0.057 (0.069) | 0.040 (0.065) | -0.113** (0.042) | -0.269*** (0.061) | -0.163** (0.051) | -0.165** (0.059) |
| Course Format: Combination of on campus and auxiliary | 0.183* (0.071) | -0.066 (0.052) | 0.071 (0.049) | -0.070* (0.032) | -0.322*** (0.047) | -0.181*** (0.039) | -0.082+ (0.046) |
| Course Previously Taught: 1 – 2 times | -0.001 (0.065) | -0.004 (0.049) | -0.051 (0.047) | 0.037 (0.029) | 0.008 (0.043) | -0.009 (0.036) | 0.009 (0.042) |
| Course Previously Taught: 3 – 4 times | 0.001 (0.065) | 0.032 (0.048) | -0.014 (0.047) | 0.055+ (0.030) | -0.012 (0.043) | -0.023 (0.036) | -0.002 (0.042) |
| Course Previously Taught: 5 – 9 times | -0.047 (0.061) | 0.020 (0.045) | -0.024 (0.045) | 0.035 (0.028) | 0.020 (0.040) | 0.040 (0.034) | 0.027 (0.039) |

| | | | | | | | |
|--|-------------------|-------------------|--------------------------------|-------------------|-------------------|-------------------------------|-------------------|
| Course Previously Taught: 10+ times | -0.033 (0.058) | 0.043 (0.042) | -0.023 (0.042) | 0.041 (0.026) | -0.009 (0.038) | 0.001 (0.032) | 0.031 (0.037) |
| Course: General Education Requirement | 0.012 (0.031) | -0.011 (0.023) | 0.017 (0.022) | 0.014 (0.014) | 0.020 (0.021) | 0.012 (0.017) | 0.014 (0.020) |
| Inst Size Small: 1,000 – 2,499 students | 0.036 (0.069) | 0.012 (0.052) | 0.048 (0.047) | 0.014 (0.031) | 0.021 (0.046) | -0.013 (0.038) | -0.003 (0.043) |
| Inst Size Medium: 2,500 – 4,999 students | 0.017 (0.070) | -0.007 (0.053) | 0.024 (0.048) | 0.028 (0.031) | 0.040 (0.046) | -0.038 (0.038) | 0.021 (0.043) |
| Inst Size Large: 5,000 – 9,999 students | -0.030 (0.071) | 0.006 (0.054) | 0.061 (0.049) | -0.011 (0.031) | -0.021 (0.047) | -0.038 (0.039) | 0.005 (0.044) |
| Inst Size Very Large: 10,000 + students | 0.028 (0.076) | -0.024 (0.057) | 0.031 (0.053) | -0.001 (0.033) | 0.007 (0.050) | -0.044 (0.042) | 0.036 (0.048) |
| Public Institution | 0.042 (0.035) | -0.003 (0.026) | -0.046 ⁺ (0.024) | 0.008 (0.015) | 0.030 (0.023) | 0.037 ⁺ (0.019) | 0.002 (0.022) |
| N | 325 | 312 | 311 | 309 | 311 | 320 | 313 |
| R ² | 0.245 | 0.124 | 0.166 | 0.175 | 0.280 | 0.201 | 0.194 |

Standard errors in parentheses

⁺ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure & Rank (Tenured Professor); Course Size (20 or less students); Course Format (Distance Education); Course Previously Taught (0 times); Inst Size (Very Small, >1,000 students)

Research Question 1 Model 2: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|---|-------------------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Male | 0.045 ⁺ (0.025) | 0.013 (0.019) | -0.051** (0.017) | -0.002 (0.011) | -0.015 (0.017) | -0.007 (0.014) | -0.034* (0.016) |
| Age | -0.001 (0.001) | 0.001 (0.001) | -0.001+ (0.001) | -0.000 (0.001) | -0.000 (0.001) | 0.000 (0.001) | -0.000 (0.001) |
| U.S. Citizen | 0.020 (0.083) | -0.011 (0.060) | -0.008 (0.056) | -0.007 (0.037) | 0.017 (0.054) | 0.044 (0.045) | 0.035 (0.053) |
| Full Time | -0.044 (0.033) | 0.010 (0.025) | 0.038 (0.023) | 0.008 (0.015) | 0.031 (0.023) | 0.010 (0.018) | 0.061** (0.021) |
| Race: Asian | 0.090+ (0.047) | 0.006 (0.034) | -0.059+ (0.032) | -0.007 (0.023) | 0.002 (0.031) | 0.082** (0.025) | -0.051+ (0.030) |
| Race: African American | -0.131* (0.059) | 0.085+ (0.045) | 0.069+ (0.040) | 0.025 (0.027) | 0.023 (0.039) | 0.034 (0.033) | -0.002 (0.038) |
| Race: Hispanic or Latino | 0.034 (0.065) | 0.040 (0.050) | 0.011 (0.044) | -0.004 (0.029) | -0.007 (0.047) | 0.034 (0.036) | -0.004 (0.042) |
| Race: Native Hawaiian | 0.103 (0.214) | 0.108 (0.156) | -0.003 (0.144) | -0.015 (0.095) | -0.007 (0.140) | -0.079 (0.116) | 0.027 (0.136) |
| Race: Other | -0.103 (0.098) | 0.055 (0.072) | 0.104 (0.066) | -0.021 (0.043) | -0.076 (0.072) | 0.066 (0.053) | -0.034 (0.062) |
| On Tenure Track | -0.010 (0.039) | 0.012 (0.029) | 0.007 (0.027) | 0.000 (0.018) | -0.024 (0.026) | 0.019 (0.021) | 0.029 (0.025) |
| Tenure Not Offered | 0.015 (0.043) | 0.001 (0.032) | -0.012 (0.029) | -0.012 (0.019) | -0.034 (0.029) | 0.035 (0.023) | 0.010 (0.028) |
| Not On Tenure Track | 0.035 (0.034) | -0.002 (0.025) | -0.015 (0.023) | -0.006 (0.015) | -0.015 (0.023) | 0.010 (0.019) | 0.015 (0.022) |
| Course Student Level: Mostly Junior/Senior | -0.028 | 0.010 | 0.010 | 0.026* | -0.029+ | -0.024+ | 0.031+ |

| | | | | | | | |
|---|----------|---------|---------|----------|-----------|-----------|----------|
| | (0.025) | (0.019) | (0.017) | (0.011) | (0.017) | (0.014) | (0.016) |
| Course Size: Less than 50 | -0.022 | 0.006 | 0.002 | 0.030+ | 0.002 | 0.028 | 0.002 |
| | (0.038) | (0.028) | (0.025) | (0.017) | (0.026) | (0.020) | (0.024) |
| Course Format: On campus | 0.306*** | -0.063 | 0.068+ | -0.071** | -0.273*** | -0.124*** | -0.107** |
| | (0.053) | (0.039) | (0.036) | (0.024) | (0.035) | (0.029) | (0.035) |
| Course Format: Auxiliary location | 0.170+ | -0.099 | 0.034 | -0.089* | -0.209*** | -0.132** | -0.141* |
| | (0.087) | (0.064) | (0.059) | (0.039) | (0.057) | (0.048) | (0.056) |
| Course Format: Combination of on campus and auxiliary | 0.217** | -0.076 | 0.062 | -0.052+ | -0.274*** | -0.134*** | -0.059 |
| | (0.066) | (0.049) | (0.044) | (0.030) | (0.044) | (0.036) | (0.043) |
| Taught Course 1 – 9 times | 0.005 | 0.020 | -0.043 | 0.040+ | 0.032 | 0.022 | 0.018 |
| | (0.053) | (0.039) | (0.038) | (0.024) | (0.035) | (0.029) | (0.035) |
| Taught Course 10+Times | -0.014 | 0.054 | -0.040 | 0.036 | 0.011 | 0.011 | 0.035 |
| | (0.053) | (0.039) | (0.038) | (0.024) | (0.035) | (0.029) | (0.035) |
| Course: General Education Requirement | 0.008 | -0.017 | 0.025 | 0.018 | 0.014 | 0.006 | 0.018 |
| | (0.029) | (0.021) | (0.020) | (0.013) | (0.019) | (0.016) | (0.019) |
| Inst Size Less than: 10,000 students | -0.039 | 0.014 | 0.004 | 0.005 | -0.000 | 0.014 | -0.023 |
| | (0.028) | (0.021) | (0.020) | (0.013) | (0.019) | (0.016) | (0.018) |
| Public Institution | 0.037 | -0.011 | -0.026 | -0.007 | 0.013 | 0.033* | -0.020 |
| | (0.029) | (0.021) | (0.020) | (0.013) | (0.020) | (0.016) | (0.019) |
| N | 340.000 | 326.000 | 325.000 | 323.000 | 322.000 | 333.000 | 325.000 |
| R ² | 0.204 | 0.067 | 0.121 | 0.076 | 0.197 | 0.138 | 0.121 |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure (Tenured); Course Size (50+ students); Course Format (Distance Edu); Course Previously Taught (0 times); Inst Size (More than 10,000 students)

Research Question 1 Model 3: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|---|-------------------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Male | 0.044 ⁺ (0.025) | 0.013 (0.019) | -0.052** (0.017) | -0.004 (0.011) | -0.023 (0.018) | -0.013 (0.014) | -0.035* (0.016) |
| Age | -0.000 (0.001) | 0.001 (0.001) | -0.002* (0.001) | -0.000 (0.001) | 0.000 (0.001) | 0.000 (0.001) | -0.000 (0.001) |
| U.S. Citizen | 0.026 (0.083) | -0.012 (0.060) | -0.010 (0.055) | -0.006 (0.037) | 0.032 (0.057) | 0.059 (0.047) | 0.033 (0.053) |
| Full Time | -0.037 (0.034) | 0.005 (0.025) | 0.035 (0.023) | 0.000 (0.015) | 0.038 (0.024) | 0.008 (0.019) | 0.050* (0.022) |
| Race: Asian | 0.108* (0.046) | -0.003 (0.033) | -0.059+ (0.031) | -0.009 (0.022) | 0.046 (0.032) | 0.111*** (0.026) | -0.053+ (0.029) |
| Race: African American | -0.129* (0.059) | 0.087+ (0.044) | 0.069+ (0.039) | 0.027 (0.027) | 0.023 (0.040) | 0.044 (0.034) | 0.003 (0.037) |
| Race: Hispanic or Latino | 0.028 (0.066) | 0.041 (0.050) | 0.017 (0.044) | 0.004 (0.029) | -0.003 (0.049) | 0.025 (0.037) | 0.000 (0.042) |
| Race: Native Hawaiian | 0.149 (0.216) | 0.089 (0.157) | -0.025 (0.144) | -0.031 (0.094) | 0.004 (0.148) | -0.096 (0.122) | 0.005 (0.137) |
| Race: Other | -0.097 (0.098) | 0.053 (0.071) | 0.101 (0.065) | -0.023 (0.043) | -0.054 (0.075) | 0.072 (0.055) | -0.043 (0.062) |
| Associate Prof | 0.012 (0.039) | 0.004 (0.029) | -0.033 (0.026) | -0.020 (0.017) | -0.029 (0.027) | -0.006 (0.022) | -0.010 (0.025) |
| Assistant Prof | 0.009 (0.038) | -0.002 (0.029) | -0.018 (0.026) | -0.019 (0.017) | -0.022 (0.027) | 0.029 (0.022) | -0.006 (0.025) |
| Instru/Lecturer | 0.054 (0.038) | -0.024 (0.029) | -0.034 (0.026) | -0.038* (0.017) | -0.018 (0.027) | 0.011 (0.022) | -0.028 (0.025) |
| Course Student Level: Mostly Junior/Senior | -0.025 | 0.005 | 0.011 | 0.023* | -0.027 | -0.023 | 0.026 |

| | | | | | | | |
|--------------------------------------|---------------------|--------------------|-------------------|---------------------|----------------------|----------------------|---------------------|
| | (0.025) | (0.019) | (0.017) | (0.011) | (0.018) | (0.015) | (0.016) |
| Course Size: Less than 50 | -0.019 (0.038) | 0.009 (0.028) | 0.000 (0.025) | 0.030+ (0.017) | 0.008 (0.027) | 0.032 (0.022) | -0.000 (0.024) |
| Course Format: On campus | 0.308*** (0.051) | -0.066+ (0.037) | 0.071* (0.034) | -0.069** (0.023) | -0.262*** (0.035) | -0.138*** (0.030) | -0.109** (0.033) |
| Course Format: Auxiliary | 0.168+ (0.087) | -0.098 (0.063) | 0.038 (0.058) | -0.083* (0.039) | -0.206*** (0.060) | -0.151** (0.050) | -0.136* (0.056) |
| Course Format: Combo | 0.215** (0.065) | -0.077 (0.047) | 0.068 (0.043) | -0.048 (0.029) | -0.263*** (0.045) | -0.149*** (0.038) | -0.062 (0.042) |
| Taught Course 1 – 9 times | 0.005 (0.053) | 0.023 (0.039) | -0.045 (0.037) | 0.041+ (0.024) | 0.031 (0.037) | 0.024 (0.031) | 0.018 (0.034) |
| Taught Course 10+Times | -0.011 (0.053) | 0.054 (0.039) | -0.043 (0.037) | 0.035 (0.024) | 0.018 (0.036) | 0.019 (0.031) | 0.030 (0.034) |
| Course: General Education | 0.007 (0.029) | -0.014 (0.021) | 0.025 (0.020) | 0.019 (0.013) | 0.009 (0.020) | 0.006 (0.016) | 0.019 (0.018) |
| Inst Size Less than: 10,000 students | -0.038 (0.029) | 0.013 (0.021) | 0.007 (0.020) | 0.007 (0.013) | 0.008 (0.020) | 0.018 (0.016) | -0.021 (0.018) |
| Public Institution | 0.041 (0.027) | -0.009 (0.020) | -0.027 (0.018) | -0.003 (0.012) | 0.029 (0.019) | 0.030+ (0.015) | -0.019 (0.017) |
| N | 341.000 | 327.000 | 326.000 | 324.000 | 323.000 | 334.000 | 326.000 |
| R ² | 0.208 | 0.073 | 0.128 | 0.091 | 0.193 | 0.151 | 0.121 |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Rank (Professor); Course Size (50+ students); Course Format (Distance Edu); Course Previously Taught (0 times); Inst Size (More than 10,000 students)

Research Question 1 Model 4: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|--------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Male | 0.049 ⁺ (0.025) | 0.013 (0.018) | -0.051** (0.017) | -0.001 (0.011) | -0.025 (0.017) | -0.012 (0.014) | -0.037* (0.016) |
| Age | -0.000 (0.001) | 0.001 (0.001) | -0.002* (0.001) | -0.000 (0.001) | 0.000 (0.001) | 0.000 (0.001) | -0.000 (0.001) |
| U.S. Citizen | 0.028 (0.083) | -0.011 (0.061) | -0.007 (0.055) | -0.009 (0.037) | 0.028 (0.057) | 0.056 (0.047) | 0.032 (0.052) |
| Full Time | -0.039 (0.033) | 0.012 (0.025) | 0.035 (0.023) | 0.001 (0.015) | 0.036 (0.023) | 0.006 (0.019) | 0.053* (0.021) |
| Race: Asian | 0.107* (0.046) | -0.005 (0.033) | -0.060* (0.031) | -0.010 (0.022) | 0.049 (0.031) | 0.113*** (0.026) | -0.053+ (0.029) |
| Race: African American | -0.133* (0.058) | 0.085 ⁺ (0.044) | 0.073 ⁺ (0.039) | 0.021 (0.027) | 0.021 (0.040) | 0.041 (0.034) | 0.003 (0.037) |
| Race: Hispanic or Latino | 0.025 (0.065) | 0.047 (0.050) | 0.020 (0.044) | 0.001 (0.029) | -0.005 (0.049) | 0.023 (0.037) | 0.002 (0.041) |
| Race: Native Hawaiian | 0.148 (0.215) | 0.094 (0.158) | -0.028 (0.144) | -0.024 (0.095) | 0.008 (0.147) | -0.093 (0.122) | 0.006 (0.136) |
| Race: Other | -0.090 (0.089) | 0.016 (0.066) | 0.066 (0.060) | -0.032 (0.039) | -0.026 (0.067) | 0.055 (0.051) | -0.023 (0.056) |
| Associate Prof | 0.016 (0.038) | 0.003 (0.029) | -0.033 (0.026) | -0.015 (0.017) | -0.029 (0.027) | -0.003 (0.022) | -0.013 (0.025) |
| Assistant Prof | 0.012 (0.038) | -0.008 (0.029) | -0.017 (0.026) | -0.016 (0.017) | -0.019 (0.026) | 0.032 (0.022) | -0.010 (0.024) |
| Instru/Lecturer | 0.056 (0.038) | -0.028 (0.029) | -0.032 (0.026) | -0.035* (0.017) | -0.017 (0.027) | 0.014 (0.022) | -0.032 (0.025) |
| Course Student Level | -0.023 (0.025) | 0.004 (0.019) | 0.013 (0.017) | 0.024* (0.011) | -0.028 (0.017) | -0.023 (0.014) | 0.024 (0.016) |

| | | | | | | | |
|-----------------------------|---------------------|-------------------|--------------------|--------------------|----------------------|----------------------|----------------------|
| Course Size: Less than 50 | -0.019 (0.038) | 0.008 (0.028) | 0.003 (0.025) | 0.026 (0.017) | 0.005 (0.027) | 0.030 (0.021) | -0.001 (0.024) |
| Course Format: On campus | 0.321*** (0.048) | -0.049 (0.036) | 0.074* (0.032) | -0.055* (0.022) | -0.267*** (0.033) | -0.139*** (0.028) | -0.111*** (0.031) |
| Course Format: Auxiliary | 0.176* (0.085) | -0.070 (0.062) | 0.038 (0.057) | -0.068+ (0.038) | -0.212*** (0.058) | -0.153** (0.049) | -0.134* (0.054) |
| Course Format: Combo | 0.224*** (0.063) | -0.054 (0.046) | 0.074+ (0.042) | -0.037 (0.029) | -0.272*** (0.044) | -0.152*** (0.036) | -0.063 (0.040) |
| Course: General Education | 0.013 (0.028) | -0.017 (0.021) | 0.025 (0.020) | 0.019 (0.013) | 0.009 (0.020) | 0.003 (0.016) | 0.019 (0.018) |
| Inst Size < 10,000 students | -0.038 (0.028) | 0.008 (0.021) | 0.005 (0.019) | 0.005 (0.013) | 0.009 (0.020) | 0.018 (0.016) | -0.020 (0.018) |
| Public Institution | 0.040 (0.026) | -0.013 (0.020) | -0.030+ (0.018) | -0.006 (0.012) | 0.032+ (0.018) | 0.030* (0.015) | -0.017 (0.017) |
| N | 345.000 | 331.000 | 330.000 | 328.000 | 327.000 | 338.000 | 330.000 |
| R ² | 0.223 | 0.056 | 0.125 | 0.080 | 0.216 | 0.160 | 0.122 |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Rank (Professor); Course Size (50+ students); Course Format (Distance Edu); Inst Size (More than 10,000 students)

Research Question 1 Model 5: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|--------------------------|--------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Male | 0.050* (0.025) | 0.013 (0.019) | -0.051** (0.017) | 0.001 (0.011) | -0.018 (0.017) | -0.007 (0.013) | -0.035* (0.016) |
| Age | -0.001 (0.001) | 0.001 (0.001) | -0.002+ (0.001) | -0.000 (0.001) | -0.000 (0.001) | 0.000 (0.001) | 0.000 (0.001) |
| U.S. Citizen | 0.023 (0.082) | -0.011 (0.061) | -0.004 (0.055) | -0.011 (0.037) | 0.013 (0.054) | 0.041 (0.045) | 0.034 (0.052) |
| Full Time | -0.047 (0.033) | 0.017 (0.024) | 0.037 (0.023) | 0.008 (0.015) | 0.029 (0.022) | 0.006 (0.018) | 0.065** (0.021) |
| Race: Asian | 0.090+ (0.047) | 0.003 (0.034) | -0.060+ (0.031) | -0.007 (0.023) | 0.008 (0.031) | 0.084** (0.025) | -0.052+ (0.030) |
| Race: African American | -0.135* (0.059) | 0.083+ (0.045) | 0.074+ (0.039) | 0.020 (0.027) | 0.020 (0.039) | 0.032 (0.033) | -0.003 (0.037) |
| Race: Hispanic or Latino | 0.031 (0.065) | 0.046 (0.050) | 0.014 (0.044) | -0.005 (0.029) | -0.008 (0.047) | 0.031 (0.035) | -0.002 (0.041) |
| Race: Native Hawaiian | 0.103 (0.213) | 0.110 (0.157) | -0.008 (0.143) | -0.008 (0.095) | 0.001 (0.140) | -0.075 (0.116) | 0.027 (0.135) |
| Race: Other | -0.098 (0.090) | 0.016 (0.066) | 0.074 (0.060) | -0.027 (0.040) | -0.033 (0.064) | 0.047 (0.049) | -0.014 (0.057) |
| On Tenure Track | -0.006 (0.038) | 0.000 (0.028) | 0.007 (0.026) | -0.002 (0.017) | -0.015 (0.025) | 0.021 (0.021) | 0.023 (0.024) |
| Tenure Not Offered | 0.017 (0.042) | -0.000 (0.032) | -0.015 (0.028) | -0.013 (0.019) | -0.026 (0.028) | 0.033 (0.023) | 0.012 (0.027) |
| Not on Tenure Track | 0.037 (0.033) | -0.012 (0.025) | -0.014 (0.023) | -0.009 (0.015) | -0.009 (0.022) | 0.011 (0.018) | 0.011 (0.022) |

| | | | | | | | |
|-----------------------------|---------------------|-------------------|-------------------|--------------------|----------------------|----------------------|----------------------|
| Course Student Level | -0.026 (0.025) | 0.007 (0.019) | 0.012 (0.017) | 0.027* (0.011) | -0.029+ (0.017) | -0.023+ (0.014) | 0.028+ (0.016) |
| Course Size: Less than 50 | -0.021 (0.037) | 0.005 (0.028) | 0.004 (0.025) | 0.027 (0.017) | -0.002 (0.025) | 0.026 (0.020) | 0.001 (0.024) |
| Course Format: On campus | 0.321*** (0.050) | -0.046 (0.037) | 0.069* (0.034) | -0.058* (0.023) | -0.277*** (0.033) | -0.126*** (0.028) | -0.109*** (0.033) |
| Course Format: Auxiliary | 0.179* (0.085) | -0.071 (0.063) | 0.034 (0.057) | -0.073+ (0.038) | -0.216*** (0.056) | -0.136** (0.046) | -0.137* (0.054) |
| Course Format: Combo | 0.227*** (0.064) | -0.053 (0.047) | 0.066 (0.043) | -0.040 (0.029) | -0.281*** (0.043) | -0.138*** (0.035) | -0.059 (0.041) |
| Course: General Education | 0.014 (0.028) | -0.019 (0.021) | 0.024 (0.020) | 0.018 (0.013) | 0.014 (0.019) | 0.005 (0.016) | 0.017 (0.018) |
| Inst Size < 10,000 students | -0.039 (0.028) | 0.010 (0.021) | 0.002 (0.019) | 0.003 (0.013) | 0.001 (0.019) | 0.014 (0.015) | -0.021 (0.018) |
| Public Institution | 0.036 (0.028) | -0.014 (0.021) | -0.030 (0.019) | -0.009 (0.013) | 0.018 (0.019) | 0.032* (0.015) | -0.016 (0.018) |
| N | 344.000 | 330.000 | 329.000 | 327.000 | 326.000 | 337.000 | 329.000 |
| R ² | 0.219 | 0.049 | 0.119 | 0.067 | 0.219 | 0.145 | 0.119 |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure (Tenured); Course Size (50+ students); Course Format (Distance Edu); Inst Size (More than 10,000 students)

Research Question 1 Model 6: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|--------------------------|--------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Male | 0.063* (0.026) | 0.008 (0.018) | -0.042* (0.016) | 0.001 (0.011) | -0.042* (0.018) | -0.021 (0.014) | -0.036* (0.016) |
| Age | -0.001 (0.001) | 0.001 (0.001) | -0.002* (0.001) | -0.000 (0.001) | 0.001 (0.001) | 0.001 (0.001) | -0.000 (0.001) |
| U.S. Citizen | -0.016 (0.087) | 0.002 (0.059) | -0.012 (0.054) | -0.008 (0.036) | 0.017 (0.060) | 0.051 (0.047) | 0.030 (0.052) |
| Full Time | -0.014 (0.033) | 0.011 (0.023) | 0.030 (0.021) | -0.011 (0.014) | 0.017 (0.024) | -0.005 (0.018) | 0.041* (0.020) |
| Race: Asian | 0.110* (0.048) | -0.008 (0.032) | -0.047 (0.030) | 0.000 (0.021) | 0.043 (0.033) | 0.107*** (0.026) | -0.045 (0.028) |
| Race: African American | -0.126* (0.060) | 0.066 (0.042) | 0.074* (0.037) | 0.027 (0.026) | 0.030 (0.042) | 0.033 (0.034) | 0.000 (0.036) |
| Race: Hispanic or Latino | 0.035 (0.069) | 0.050 (0.049) | 0.023 (0.043) | 0.005 (0.029) | 0.007 (0.053) | 0.026 (0.038) | 0.005 (0.041) |
| Race: Native Hawaiian | 0.195 (0.229) | 0.082 (0.155) | -0.009 (0.142) | -0.009 (0.095) | -0.010 (0.159) | -0.091 (0.125) | 0.000 (0.136) |
| Race: Other | -0.175+ (0.094) | 0.037 (0.063) | 0.040 (0.058) | -0.026 (0.039) | 0.062 (0.071) | 0.103* (0.051) | -0.012 (0.056) |
| Associate Prof | 0.010 (0.040) | 0.001 (0.028) | -0.023 (0.025) | -0.013 (0.017) | -0.048+ (0.028) | -0.011 (0.022) | -0.016 (0.024) |
| Assistant Prof | 0.027 (0.039) | -0.019 (0.027) | -0.012 (0.025) | -0.019 (0.017) | -0.036 (0.028) | 0.022 (0.022) | -0.021 (0.024) |
| Instru/Lecturer | 0.068+ (0.040) | -0.035 (0.028) | -0.028 (0.025) | -0.041* (0.017) | -0.021 (0.028) | 0.011 (0.022) | -0.042+ (0.024) |
| N | 351.000 | 336.000 | 335.000 | 334.000 | 332.000 | 344.000 | 335.000 |
| R ² | 0.072 | 0.037 | 0.094 | 0.027 | 0.037 | 0.072 | 0.061 |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Rank (Professor)

Research Question 1 Model 7: OLS Multiple Regression Analysis on Time Spent on Pedagogical Techniques in the Accounting Classroom

| | (1aa) Lecture | (1ab) Discussion | (1ac) Small Groups | (1ad) Presentations | (1ae) Independent Student Work | (1af) Assessment | (1ag) Experiential activities |
|--------------------------|--------------------|---------------------|-----------------------|------------------------|--------------------------------------|---------------------|-------------------------------------|
| Male | 0.060* (0.026) | 0.010 (0.018) | -0.042* (0.016) | 0.003 (0.011) | -0.032+ (0.018) | -0.015 (0.014) | -0.032* (0.016) |
| Age | -0.001 (0.001) | 0.001 (0.001) | -0.002* (0.001) | 0.000 (0.001) | 0.000 (0.001) | 0.000 (0.001) | 0.000 (0.001) |
| U.S. Citizen | -0.024 (0.086) | 0.006 (0.059) | -0.010 (0.054) | -0.007 (0.037) | 0.003 (0.059) | 0.037 (0.045) | 0.035 (0.052) |
| Full Time | -0.032 (0.033) | 0.017 (0.023) | 0.033 (0.022) | -0.002 (0.014) | 0.015 (0.023) | -0.003 (0.018) | 0.058** (0.020) |
| Race: Asian | 0.084+ (0.048) | 0.001 (0.033) | -0.046 (0.030) | 0.005 (0.022) | 0.007 (0.033) | 0.078** (0.025) | -0.040 (0.029) |
| Race: Black or African | -0.116+ (0.059) | 0.061 (0.042) | 0.074* (0.037) | 0.024 (0.026) | 0.015 (0.041) | 0.023 (0.032) | -0.011 (0.036) |
| Race: Hispanic or Latino | 0.023 (0.069) | 0.052 (0.049) | 0.019 (0.043) | 0.002 (0.029) | 0.009 (0.051) | 0.035 (0.036) | 0.006 (0.041) |
| Race: Native Hawaiian | 0.124 (0.224) | 0.101 (0.154) | 0.011 (0.141) | 0.015 (0.095) | -0.021 (0.153) | -0.073 (0.118) | 0.032 (0.135) |
| Race: Other | -0.159+ (0.093) | 0.032 (0.064) | 0.048 (0.059) | -0.025 (0.039) | 0.053 (0.069) | 0.091+ (0.049) | -0.010 (0.056) |
| On Tenure Track | -0.013 (0.040) | 0.001 (0.028) | 0.009 (0.025) | -0.000 (0.017) | -0.003 (0.028) | 0.029 (0.021) | 0.027 (0.024) |
| Tenure Not Offered | -0.061 (0.039) | 0.011 (0.028) | -0.010 (0.025) | 0.001 (0.017) | 0.029 (0.027) | 0.045* (0.021) | 0.037 (0.024) |
| Not On Tenure Track | 0.047 (0.034) | -0.018 (0.024) | -0.012 (0.022) | -0.016 (0.015) | 0.004 (0.024) | 0.015 (0.018) | 0.005 (0.021) |
| N | 350.000 | 335.000 | 334.000 | 333.000 | 331.000 | 343.000 | 334.000 |
| R ² | 0.087 | 0.031 | 0.090 | 0.012 | 0.019 | 0.061 | 0.063 |

Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure (Tenured)

Appendix G

Research Question 1 Model 1: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|--|-------------------------------|---------------------------------|-------------------------------|---------------------------------|--------------------------------|
| Male | 0.073 ⁺ (0.043) | 0.056 (0.053) | 0.099 ⁺ (0.057) | 0.004 (0.056) | 0.028 (0.050) |
| Age | 0.001 (0.002) | 0.001 (0.003) | -0.003 (0.003) | 0.009 ^{***} (0.003) | -0.000 (0.003) |
| U.S. Citizen | 0.101 (0.098) | - | -0.159 (0.206) | -0.347 (0.218) | - |
| Full Time | 0.030 (0.050) | 0.226 ^{***} (0.068) | 0.127 (0.078) | 0.211 ^{**} (0.075) | 0.177 ^{**} (0.066) |
| Race: American Indian or Alaska Native | - | 0.045 (0.287) | -0.232 (0.374) | 0.458 (0.337) | 0.023 (0.246) |
| Race: Asian | -0.109 (0.071) | 0.116 (0.119) | 0.006 (0.106) | -0.166 (0.105) | 0.055 (0.106) |
| Race: Black or African American | -0.064 (0.075) | -0.092 (0.123) | 0.088 (0.138) | 0.211 (0.168) | -0.085 (0.121) |
| Race: Hispanic or Latino | -0.109 (0.071) | 0.196 (0.157) | 0.330 [*] (0.168) | 0.455 [*] (0.188) | 0.250 (0.187) |
| Race: Other | - | 0.249 (0.266) | 0.379 (0.294) | -0.078 (0.289) | 0.115 (0.219) |
| Race: I prefer not to respond | -0.036 (0.062) | -0.060 (0.095) | -0.152 (0.108) | -0.051 (0.105) | -0.093 (0.083) |

| | | | | | |
|--|---------------------|--------------------|-------------------|--------------------|--------------------|
| Tenured Associate Professor | -0.029 (0.062) | -0.209* (0.085) | 0.096 (0.098) | -0.010 (0.095) | -0.144+ (0.082) |
| Tenured Assistant Professor | -0.067 (0.102) | 0.028 (0.228) | 0.176 (0.225) | -0.305 (0.210) | -0.126 (0.196) |
| Tenured Instructor or Lecturer | - | -0.215 (0.270) | 0.023 (0.308) | 0.156 (0.306) | - |
| On Tenure Track – Associate Professor | -0.222** (0.085) | -0.288 (0.181) | -0.265 (0.208) | -0.542* (0.243) | -0.359* (0.159) |
| On Tenure Track – Assistant Professor | -0.032 (0.068) | -0.017 (0.090) | 0.122 (0.095) | 0.155 (0.095) | -0.069 (0.085) |
| Not On Tenure Track – Professor | -0.282** (0.109) | 0.070 (0.207) | 0.203 (0.200) | 0.247 (0.240) | 0.049 (0.185) |
| Not On Tenure Track – Associate Professor | - | 0.238 (0.222) | 0.343+ (0.204) | 0.177 (0.191) | - |
| Not On Tenure Track – Assistant Professor | -0.013 (0.090) | 0.107 (0.175) | 0.096 (0.163) | 0.125 (0.156) | 0.033 (0.159) |
| Not On Tenure Track – Instructor/Lecturer | -0.014 (0.061) | 0.026 (0.082) | 0.066 (0.087) | -0.021 (0.085) | -0.004 (0.079) |
| Tenure not offered at institution - Professor | -0.093 (0.088) | -0.023 (0.150) | 0.059 (0.162) | 0.110 (0.174) | -0.098 (0.135) |
| Tenure not offered at institution – Associate Professor | 0.002 (0.090) | 0.073 (0.140) | 0.208 (0.150) | 0.300+ (0.162) | 0.111 (0.172) |
| Tenure not offered at institution – Assistant Professor | - | - | -0.294 (0.235) | -0.125 (0.178) | - |
| Tenure not offered at institution – Instructor or Lecturer | 0.023 (0.100) | -0.086 (0.120) | -0.168 (0.151) | -0.113 (0.137) | -0.175 (0.107) |

| | | | | | |
|---|-------------------|-------------------|-------------------|--------------------|-------------------|
| Course Student Level: Mostly Junior/Senior | 0.025 (0.038) | 0.079 (0.055) | 0.097+ (0.059) | 0.008 (0.059) | 0.086+ (0.051) |
| Course Size: 21 - 30 | -0.083 (0.067) | -0.072 (0.077) | -0.100 (0.085) | -0.162+ (0.084) | -0.033 (0.078) |
| Course Size: 31 - 40 | -0.107 (0.071) | -0.029 (0.086) | -0.059 (0.094) | -0.188* (0.093) | -0.111 (0.083) |
| Course Size: 41 - 50 | -0.078 (0.089) | -0.050 (0.113) | -0.156 (0.126) | -0.189 (0.121) | -0.133 (0.103) |
| Course Size: 51 - 100 | -0.086 (0.095) | 0.100 (0.138) | -0.137 (0.123) | -0.263* (0.120) | -0.026 (0.126) |
| Course Size: 100+ | - | -0.191 (0.140) | -0.022 (0.161) | -0.016 (0.163) | -0.089 (0.138) |
| Course Format: On campus | 0.011 (0.068) | -0.091 (0.114) | 0.055 (0.123) | 0.210+ (0.127) | 0.047 (0.093) |
| Course Format: Auxiliary location | -0.085 (0.108) | 0.192 (0.225) | 0.022 (0.203) | 0.207 (0.198) | 0.179 (0.190) |
| Course Format: Combination of on campus & auxiliary | 0.007 (0.087) | 0.086 (0.150) | 0.180 (0.153) | 0.204 (0.155) | 0.162 (0.130) |
| Course Previously Taught: 1 – 2 times | - | -0.013 (0.121) | 0.012 (0.138) | 0.219 (0.146) | -0.005 (0.116) |
| Course Previously Taught: 3 – 4 times | -0.079 (0.134) | 0.037 (0.124) | 0.093 (0.140) | 0.177 (0.147) | 0.107 (0.123) |
| Course Previously Taught: 5 – 9 times | -0.018 (0.130) | 0.106 (0.117) | -0.006 (0.129) | 0.136 (0.139) | -0.021 (0.109) |
| Course Previously Taught: 10+ times | -0.166 (0.128) | 0.022 (0.107) | 0.019 (0.122) | 0.154 (0.132) | 0.005 (0.102) |
| Course: General Education Requirement | 0.125* (0.060) | 0.144* (0.065) | 0.119+ (0.067) | 0.152* (0.066) | 0.127* (0.061) |

| | | | | | |
|--|--------------------|--------------------|--------------------|-------------------|-------------------|
| Inst Size Small: 1,000 – 2,499 students | 0.270** (0.105) | 0.210 (0.143) | 0.284+ (0.163) | 0.039 (0.159) | 0.206 (0.147) |
| Inst Size Medium: 2,500 – 4,999 students | 0.207* (0.085) | 0.403** (0.144) | 0.424** (0.161) | 0.059 (0.159) | 0.308* (0.148) |
| Inst Size Large: 5,000 – 9,999 students | 0.251* (0.100) | 0.275+ (0.147) | 0.483** (0.163) | 0.012 (0.162) | 0.161 (0.150) |
| Inst Size Very Large: 10,000 + students | 0.188+ (0.108) | 0.276+ (0.157) | 0.315+ (0.176) | -0.025 (0.171) | 0.133 (0.156) |
| Public Institution | 0.017 (0.055) | 0.049 (0.071) | -0.024 (0.074) | 0.021 (0.074) | 0.005 (0.070) |
| N | 256 | 312 | 327 | 327 | 302 |
| Pseudo R ² | 0.292 | 0.130 | 0.138 | 0.150 | 0.137 |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure & Rank (Tenured Professor); Course Size (20 or less students); Course Format (Distance Education); Course Previously Taught (0 times); Inst Size (Very Small, >1,000 students)

Research Question 1 Model 2: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------------------------------|--------------------|--------------------|-------------------|--------------------|-------------------|
| Male | 0.028 (0.029) | 0.067 (0.052) | 0.092 (0.056) | -0.007 (0.056) | 0.036 (0.047) |
| Age | -0.000 (0.002) | 0.002 (0.003) | -0.005 (0.003) | 0.008** (0.003) | -0.000 (0.002) |
| U.S. Citizen | 0.105 (0.077) | 0.000 (.) | -0.151 (0.209) | -0.307 (0.201) | 0.000 (.) |
| Full Time | -0.013 (0.038) | 0.196** (0.068) | 0.087 (0.076) | 0.203** (0.074) | 0.127* (0.060) |
| Race: Asian | -0.040 (0.049) | 0.169 (0.122) | 0.024 (0.109) | -0.145 (0.107) | 0.048 (0.100) |
| Race: Black or African American | -0.028 (0.057) | -0.042 (0.123) | 0.125 (0.139) | 0.253 (0.166) | -0.036 (0.106) |
| Race: Hispanic or Latino | -0.101* (0.049) | 0.113 (0.148) | 0.225 (0.162) | 0.315+ (0.178) | 0.129 (0.159) |
| Race: Native Hawaiian | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) |
| Race: Other | 0.000 (.) | 0.162 (0.214) | -0.041 (0.221) | 0.236 (0.222) | 0.045 (0.175) |
| On Tenure Track | -0.053 (0.042) | 0.037 (0.079) | -0.003 (0.089) | 0.125 (0.087) | -0.024 (0.070) |
| Tenure not offered | 0.011 (0.048) | 0.162+ (0.086) | -0.085 (0.095) | 0.140 (0.095) | 0.049 (0.079) |
| Not on Tenure Track | -0.023 (0.039) | 0.127+ (0.071) | 0.039 (0.078) | 0.126+ (0.076) | 0.075 (0.065) |
| Course Student Level: High | 0.023 | 0.091+ | 0.102+ | 0.033 | 0.104* |

| | | | | | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (0.027) | (0.051) | (0.057) | (0.057) | (0.045) |
| Course Size: Less than 50 | -0.054 (0.057) | -0.052 (0.084) | 0.004 (0.086) | 0.025 (0.084) | -0.053 (0.075) |
| Course Format: On campus | 0.039 (0.045) | -0.053 (0.109) | 0.056 (0.121) | 0.225+ (0.119) | 0.052 (0.085) |
| Course Format: Auxiliary location | -0.026 (0.071) | 0.228 (0.225) | 0.028 (0.200) | 0.227 (0.192) | 0.163 (0.178) |
| Course Format: Combination | -0.010 (0.060) | 0.035 (0.140) | 0.150 (0.152) | 0.191 (0.147) | 0.106 (0.118) |
| Course Previously Taught: 1-9 | 0.011 (0.069) | 0.060 (0.105) | 0.068 (0.119) | 0.194 (0.128) | 0.034 (0.094) |
| Course Previously Taught: 10+ | -0.054 (0.063) | 0.027 (0.107) | 0.098 (0.120) | 0.220+ (0.129) | 0.021 (0.095) |
| Course: General Education | 0.049 (0.036) | 0.126* (0.064) | 0.144* (0.065) | 0.134* (0.065) | 0.086 (0.056) |
| Inst Size Less than 10,000 | 0.057+ (0.035) | 0.029 (0.059) | 0.157* (0.063) | 0.067 (0.063) | 0.087+ (0.049) |
| Public Institution | 0.063+ (0.036) | 0.055 (0.059) | 0.038 (0.066) | 0.026 (0.065) | -0.029 (0.055) |
| N | 334.000 | 330.000 | 339.000 | 337.000 | 335.000 |
| Pseudo R ² | 0.148 | 0.063 | 0.048 | 0.084 | 0.064 |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure (Tenured); Course Size (50+ students); Course Format (Distance Edu); Course Previously Taught (0 times); Inst Size (More than 10,000 students)

Research Question 1 Model 3: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------------------------------|--------------------|-------------------|--------------------------------|-------------------|-------------------|
| Male | 0.023 (0.028) | 0.046 (0.052) | 0.092 (0.057) | -0.020 (0.057) | 0.025 (0.046) |
| Age | -0.000 (0.001) | 0.001 (0.003) | -0.005 ⁺ (0.003) | 0.007* (0.003) | -0.000 (0.002) |
| U.S. Citizen | 0.108 (0.077) | 0.000 (.) | -0.155 (0.212) | -0.290 (0.201) | 0.000 (.) |
| Full Time | 0.005 (0.040) | 0.131* (0.066) | 0.050 (0.076) | 0.140+ (0.075) | 0.090 (0.058) |
| Race: Asian | -0.043 (0.048) | 0.154 (0.120) | 0.035 (0.106) | -0.149 (0.103) | 0.043 (0.098) |
| Race: Black or African American | -0.027 (0.057) | 0.003 (0.121) | 0.101 (0.138) | 0.280+ (0.161) | -0.021 (0.105) |
| Race: Hispanic or Latino | -0.115* (0.049) | 0.121 (0.149) | 0.258 (0.162) | 0.327+ (0.180) | 0.140 (0.159) |
| Race: Native Hawaiian | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) |
| Race: Other | 0.000 (.) | 0.156 (0.212) | -0.069 (0.217) | 0.208 (0.225) | 0.043 (0.171) |
| Asso Prof | -0.018 (0.039) | -0.121 (0.077) | 0.061 (0.087) | 0.002 (0.085) | -0.043 (0.070) |
| Asst Prof | -0.017 (0.041) | 0.005 (0.082) | -0.041 (0.086) | 0.035 (0.086) | -0.015 (0.071) |
| Instr / Lectru | 0.028 (0.045) | -0.041 (0.078) | -0.058 (0.086) | -0.056 (0.086) | -0.014 (0.068) |
| Rank: Other | 0.003 | -0.051 | -0.041 | 0.051 | 0.024 |

| | | | | | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (0.067) | (0.112) | (0.126) | (0.126) | (0.109) |
| Course Student Level: High | 0.030 (0.027) | 0.074 (0.052) | 0.085 (0.057) | 0.003 (0.058) | 0.093* (0.045) |
| Course Size: Less than 50 | -0.050 (0.057) | -0.071 (0.085) | -0.010 (0.087) | 0.019 (0.084) | -0.064 (0.075) |
| Course Format: On campus | 0.029 (0.043) | -0.078 (0.106) | 0.101 (0.117) | 0.199+ (0.116) | 0.056 (0.082) |
| Course Format: Auxiliary location | -0.044 (0.073) | 0.212 (0.224) | 0.099 (0.197) | 0.234 (0.193) | 0.175 (0.178) |
| Course Format: Combination | -0.012 (0.059) | 0.014 (0.139) | 0.175 (0.150) | 0.151 (0.145) | 0.106 (0.116) |
| Course Previously Taught: 1-9 | 0.022 (0.067) | 0.062 (0.105) | 0.045 (0.120) | 0.191 (0.129) | 0.031 (0.094) |
| Course Previously Taught: 10+ | -0.034 (0.061) | 0.025 (0.105) | 0.062 (0.119) | 0.199 (0.128) | 0.018 (0.095) |
| Course: General Education | 0.049 (0.036) | 0.145* (0.063) | 0.135* (0.065) | 0.147* (0.065) | 0.093+ (0.056) |
| Inst Size Less than 10,000 | 0.054 (0.035) | 0.034 (0.059) | 0.163* (0.063) | 0.069 (0.064) | 0.090+ (0.049) |
| Public Institution | 0.048 (0.032) | 0.014 (0.055) | 0.080 (0.061) | 0.018 (0.060) | -0.036 (0.050) |
| N | 335.000 | 331.000 | 340.000 | 338.000 | 336.000 |
| Pseudo R ² | 0.142 | 0.061 | 0.071 | 0.079 | 0.059 |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Rank (Professor); Course Size (50+ students); Course Format (Distance Edu); Course Previously Taught (0 times); Inst Size (More than 10,000 students)

Research Question 1 Model 4: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------------------------------|--------------------|-------------------|--------------------------------|--------------------|-------------------|
| Male | 0.019 (0.028) | 0.051 (0.052) | 0.090 (0.056) | -0.019 (0.057) | 0.027 (0.046) |
| Age | -0.000 (0.001) | 0.001 (0.002) | -0.005 ⁺ (0.003) | 0.008** (0.003) | -0.001 (0.002) |
| U.S. Citizen | 0.098 (0.076) | 0.000 (.) | -0.154 (0.211) | -0.307 (0.203) | 0.000 (.) |
| Full Time | 0.004 (0.040) | 0.129* (0.065) | 0.053 (0.075) | 0.126+ (0.075) | 0.076 (0.058) |
| Race: Asian | -0.026 (0.048) | 0.166 (0.121) | 0.036 (0.105) | -0.138 (0.103) | 0.047 (0.099) |
| Race: Black or African American | -0.021 (0.059) | -0.003 (0.122) | 0.100 (0.137) | 0.251 (0.156) | -0.024 (0.106) |
| Race: Hispanic or Latino | -0.109* (0.051) | 0.121 (0.150) | 0.262 (0.161) | 0.311+ (0.179) | 0.137 (0.162) |
| Race: Native Hawaiian | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) |
| Race: Other | 0.000 (.) | 0.042 (0.171) | -0.105 (0.207) | 0.110 (0.202) | -0.050 (0.138) |
| Asso Prof | -0.025 (0.040) | -0.122 (0.077) | 0.054 (0.087) | -0.001 (0.085) | -0.048 (0.069) |
| Asst Prof | -0.009 (0.042) | 0.020 (0.081) | -0.043 (0.084) | 0.040 (0.085) | -0.004 (0.071) |
| Instr / Lectru | 0.036 (0.046) | -0.033 (0.078) | -0.061 (0.086) | -0.053 (0.086) | -0.005 (0.068) |
| Rank: Other | 0.012 | -0.043 | -0.045 | 0.036 | 0.030 |

| | | | | | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (0.067) | (0.112) | (0.126) | (0.126) | (0.110) |
| Course Student Level: High | 0.033 (0.027) | 0.081 (0.051) | 0.083 (0.057) | -0.008 (0.057) | 0.090* (0.045) |
| Course Size: Less than 50 | -0.048 (0.058) | -0.080 (0.085) | -0.013 (0.086) | 0.008 (0.085) | -0.065 (0.076) |
| Course Format: On campus | 0.033 (0.043) | -0.016 (0.097) | 0.127 (0.114) | 0.196+ (0.111) | 0.058 (0.078) |
| Course Format: Auxiliary location | -0.046 (0.075) | 0.272 (0.222) | 0.134 (0.194) | 0.236 (0.191) | 0.169 (0.178) |
| Course Format: Combination | -0.006 (0.061) | 0.078 (0.132) | 0.205 (0.147) | 0.144 (0.142) | 0.109 (0.114) |
| Course: General Education | 0.054 (0.037) | 0.157* (0.063) | 0.136* (0.064) | 0.136* (0.065) | 0.093+ (0.056) |
| Inst Size Less than 10,000 | 0.051 (0.035) | 0.017 (0.059) | 0.158* (0.063) | 0.073 (0.064) | 0.092+ (0.049) |
| Public Institution | 0.055+ (0.033) | 0.001 (0.055) | 0.079 (0.060) | 0.030 (0.060) | -0.029 (0.050) |
| N | 337.000 | 334.000 | 343.000 | 341.000 | 340.000 |
| Pseudo R ² | 0.116 | 0.061 | 0.072 | 0.069 | 0.056 |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Rank (Professor); Course Size (50+ students); Course Format (Distance Edu); Inst Size (More than 10,000 students)

Research Question 1 Model 5: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------------------------------|--------------------|--------------------|-------------------|---------------------|-------------------|
| Male | 0.022 (0.029) | 0.072 (0.052) | 0.092 (0.056) | -0.007 (0.056) | 0.038 (0.047) |
| Age | -0.001 (0.001) | 0.001 (0.003) | -0.004 (0.003) | 0.009*** (0.003) | -0.001 (0.002) |
| U.S. Citizen | 0.095 (0.077) | 0.000 (.) | -0.153 (0.209) | -0.328 (0.204) | 0.000 (.) |
| Full Time | -0.013 (0.039) | 0.191** (0.067) | 0.093 (0.075) | 0.189* (0.074) | 0.110+ (0.059) |
| Race: Asian | -0.026 (0.049) | 0.179 (0.123) | 0.025 (0.108) | -0.137 (0.106) | 0.051 (0.101) |
| Race: Black or African American | -0.031 (0.060) | -0.050 (0.124) | 0.119 (0.138) | 0.223 (0.159) | -0.040 (0.106) |
| Race: Hispanic or Latino | -0.098+ (0.051) | 0.115 (0.150) | 0.231 (0.161) | 0.304+ (0.178) | 0.126 (0.161) |
| Race: Native Hawaiian | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) |
| Race: Other | 0.000 (.) | 0.038 (0.173) | -0.071 (0.211) | 0.127 (0.200) | -0.050 (0.141) |
| On Tenure Track | -0.025 (0.040) | 0.048 (0.077) | -0.012 (0.086) | 0.109 (0.084) | -0.016 (0.069) |
| Tenure not offered | 0.030 (0.047) | 0.170* (0.085) | -0.080 (0.094) | 0.132 (0.094) | 0.048 (0.077) |
| Not on tenure track | 0.000 (0.039) | 0.130+ (0.069) | 0.030 (0.076) | 0.111 (0.075) | 0.081 (0.064) |
| Course Student Level: High | 0.027 | 0.097+ (0.069) | 0.097+ (0.076) | 0.017 | 0.101* (0.064) |

| | | | | | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------------------|-------------------------------|
| | (0.027) | (0.051) | (0.056) | (0.057) | (0.045) |
| Course Size: Less than 50 | -0.050 (0.058) | -0.060 (0.084) | -0.002 (0.086) | 0.015 (0.084) | -0.054 (0.075) |
| Course Format: On campus | 0.047 (0.045) | 0.012 (0.099) | 0.089 (0.117) | 0.222 ⁺ (0.114) | 0.054 (0.081) |
| Course Format: Auxiliary location | -0.026 (0.072) | 0.293 (0.222) | 0.075 (0.196) | 0.235 (0.190) | 0.160 (0.178) |
| Course Format: Combination | -0.001 (0.060) | 0.102 (0.133) | 0.185 (0.149) | 0.184 (0.144) | 0.109 (0.116) |
| Course: General Education | 0.056 (0.038) | 0.135* (0.064) | 0.144* (0.064) | 0.123 ⁺ (0.066) | 0.085 (0.056) |
| Inst Size Less than 10,000 | 0.052 (0.035) | 0.013 (0.058) | 0.153* (0.063) | 0.072 (0.064) | 0.088 ⁺ (0.049) |
| Public Institution | 0.072* (0.037) | 0.044 (0.059) | 0.041 (0.065) | 0.038 (0.064) | -0.022 (0.054) |
| N | 336.000 | 333.000 | 342.000 | 340.000 | 339.000 |
| Pseudo R ² | 0.109 | 0.062 | 0.071 | 0.073 | 0.060 |

Marginal effects; Standard errors in parentheses

⁺ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure (Tenured); Course Size (50+ students); Course Format (Distance Edu); Inst Size (More than 10,000 students)

Research Question 1 Model 6: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------------------------------|--------------------|-------------------|--------------------|--------------------|-------------------|
| Male | 0.025 (0.028) | 0.074 (0.051) | 0.114* (0.055) | -0.001 (0.055) | 0.050 (0.045) |
| Age | -0.000 (0.001) | 0.000 (0.002) | -0.005+ (0.003) | 0.008** (0.003) | -0.000 (0.002) |
| U.S. Citizen | 0.065 (0.073) | 0.000 (.) | -0.148 (0.210) | -0.367+ (0.202) | 0.000 (.) |
| Full Time | 0.012 (0.036) | 0.069 (0.063) | 0.047 (0.072) | 0.091 (0.071) | 0.055 (0.055) |
| Race: Asian | 0.003 (0.049) | 0.201 (0.124) | 0.089 (0.105) | -0.100 (0.101) | 0.075 (0.099) |
| Race: Black or African American | -0.018 (0.059) | -0.051 (0.112) | 0.091 (0.131) | 0.284+ (0.155) | -0.012 (0.103) |
| Race: Hispanic or Latino | -0.085+ (0.047) | 0.137 (0.154) | 0.292+ (0.165) | 0.320+ (0.181) | 0.150 (0.164) |
| Race: Native Hawaiian | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) |
| Race: Other | 0.000 (.) | -0.049 (0.173) | -0.197 (0.212) | 0.036 (0.196) | -0.110 (0.138) |
| Asso Prof | -0.015 (0.037) | -0.102 (0.076) | 0.088 (0.086) | 0.046 (0.083) | 0.006 (0.068) |
| Asst Prof | 0.013 (0.041) | 0.028 (0.081) | 0.003 (0.085) | 0.085 (0.084) | 0.033 (0.069) |
| Instr / Lectru | 0.047 (0.046) | -0.018 (0.078) | -0.030 (0.085) | -0.004 (0.083) | 0.014 (0.067) |
| Rank: Other | 0.023 (0.065) | -0.036 (0.113) | -0.022 (0.127) | 0.060 (0.125) | 0.071 (0.110) |
| N | 343.000 | 340.000 | 349.000 | 347.000 | 346.000 |
| Pseudo R ² | 0.041 | 0.029 | 0.035 | 0.052 | 0.016 |

Marginal effects; Standard errors in parentheses

+ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Rank (Professor)

Research Question 1 Model 7: Marginal Effects Corresponding to Logistic Regression Analysis on Emphasis of Higher Order Learning Facets in the Accounting Classroom

| | (1ba) Apply | (1bb) Analyze | (1bc) Evaluate | (1bd) Form | (1be) Overall |
|---------------------------------|--------------------------------|-------------------------------|-------------------------------|---------------------------------|-------------------|
| Male | 0.023 (0.028) | 0.092 ⁺ (0.051) | 0.114 ⁺ (0.055) | 0.009 (0.055) | 0.060 (0.046) |
| Age | -0.001 (0.001) | 0.001 (0.003) | -0.004 (0.003) | 0.009 ^{***} (0.003) | -0.001 (0.002) |
| U.S. Citizen | 0.055 (0.072) | 0.000 (.) | -0.149 (0.209) | -0.380 ⁺ (0.204) | 0.000 (.) |
| Full Time | -0.007 (0.037) | 0.139 [*] (0.065) | 0.070 (0.073) | 0.159 [*] (0.071) | 0.094 (0.057) |
| Race: Asian | -0.006 (0.049) | 0.207 ⁺ (0.124) | 0.082 (0.107) | -0.102 (0.104) | 0.082 (0.100) |
| Race: Black or African American | -0.013 (0.059) | -0.096 (0.113) | 0.112 (0.132) | 0.266 ⁺ (0.156) | -0.028 (0.104) |
| Race: Hispanic or Latino | -0.083 ⁺ (0.048) | 0.144 (0.155) | 0.264 (0.164) | 0.321 ⁺ (0.181) | 0.148 (0.164) |
| Race: Native Hawaiian | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) | 0.000 (.) |
| Race: Other | 0.000 (.) | -0.055 (0.177) | -0.163 (0.215) | 0.053 (0.196) | -0.121 (0.140) |
| On tenure track | -0.028 (0.040) | 0.058 (0.079) | -0.005 (0.087) | 0.115 (0.085) | -0.019 (0.069) |
| Tenure not offered | -0.020 (0.041) | 0.158 [*] (0.078) | -0.081 (0.086) | 0.095 (0.084) | 0.053 (0.068) |
| Not on tenure track | 0.006 (0.038) | 0.127 ⁺ (0.067) | 0.020 (0.075) | 0.128 ⁺ (0.073) | 0.073 (0.062) |
| N | 342.000 | 339.000 | 348.000 | 346.000 | 345.000 |
| Pseudo R ² | 0.032 | 0.032 | 0.034 | 0.056 | 0.020 |

Marginal effects; Standard errors in parentheses

⁺ $p < 0.10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Reference Categories include: Race (White); Tenure (Tenured)