Developing 21st century business leaders through practice: The organizational dynamics and role of librarians and other facilitators of experiential field-based learning in U.S. MBA education

by
Ann Cullen

A Dissertation

Presented to the
Faculty of the Simmons College Graduate School of Library and Information Science
In partial fulfillment of the requirements for the Degree of Doctor of Philosophy

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Dissertation Committee
Eileen Abels, Dean and Professor, SLIS, Simmons College (Chair)
James Matarazzo, Dean Emeritus and Professor, SLIS, Simmons College
Lynda Applegate, Sarofim-Rock Professor of Business Administration, Harvard Business School
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Eileen Abels, PhD (chair)

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James Matarazzo, PhD

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Lynda Applegate, PhD

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Abstract

This exploratory study identified the types of experiential field-based learning (FBL) courses included in the top 20 U.S. two-year MBA programs identified by the 2015 U.S. News & World Report ranking. The foci of FBL courses are consulting projects in which students work outside the classroom to develop recommendations for solving a real business problem posed by a company or organization. This research analyzed the organizational structure of these courses and in particular, how business librarians, faculty, career services professionals, and other expert advisors supported the student teams in these courses. The research utilized a mixed methods approach, which began with an online survey of business librarians from the 20 programs, and continued with interviews, website analysis, and the development and analysis of six in-depth case studies. Theoretical support for this research drew from the field of sociology, with a dual focus on role theory and the concept of “jurisdictional claim” posed by Abbott’s 1988 theory of professions.

This research informs new ways to conceptualize the design of FBL courses and the structure of embedded librarianship support with social network models that represent the engagement levels of various roles. Beyond the opportunity to work on real business projects, some additional benefits to students of FBL identified were practicing teamwork and learning from the field of consulting to apply to this work. The diverse roles that provided team support also helped the students learn how to make effective use of knowledge experts. Constraints to this pedagogy included working within an academic timeframe and having access to enough individuals with the right expertise to provide the customized attention required. Other factors included contending with project sponsors that changed their project focus, adapting roles and
infrastructure to support FBL, and adequately communicating learning outcomes to all stakeholders.
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Part of these acknowledgments is the tremendous admiration I have for the individuals I interviewed for this study who work with FBL curriculum. Given the heavy and wide-ranging demands placed on those who provide this type of instruction, their passionate dedication and commitment to its educational goals revealed in these conversations were impressive.

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Dedication

To my mother who passed away November 2016.

She and my father instilled in me the love of learning and intellectual curiosity

that fostered my eventual journey towards this immense endeavor.
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Chapter 1

Introduction

1.1 Context

In recent years, there have been calls to “re-envision the MBA” or Masters of Business Education degree (Bisoux, 2011). Employers are seeking graduates who can immediately engage in today’s dynamic business environment. Employers are also concerned that the current MBA programs are not adequately preparing students for the actual processes and practices of managerial work and its often ambiguous, complex challenges (Mintzberg, 2004; Raelin, 2009; Somers, Passerini, Parhankangas, & Casal, 2014). Critics have charged that the research and education in MBA programs are too theoretical and abstract (Bennis & O’Toole, 2005; Ghoshal, 2005; Khurana, 2007; Mintzberg, 2004; Pfeffer, 2007; Thomas, Lorange, & Sheth, 2013). Such criticism is not new (Augier & March, 2011; Cheit, 1985; Hayes & Abernathy, 1980). In recent years, a number of MBA programs have implemented major changes that included expanding their offerings of immersive activities that give students the opportunity to practice what they learn (Datar, Garvin, & Cullen, 2010; Graduate Management Admission Council [GMAC], 2013).

One form of experiential pedagogy is field-based learning (FBL) with a real company or organization. In this work that occurs outside of the classroom, students apply techniques learned in their MBA courses to developing recommendations for solutions to a sponsoring company or organization’s real problems. This approach has been identified as a very effective way to close the gap in the “being and doing” vs. the “knowing” aspects of management education (Datar et al., 2010).
Baker and Schomberg (2003) defined a field study as “a for-credit course or project where a small team of MBA students conducts a consulting-type study, for a business or other organization” (p. 35). The outcome of this experiential learning, which is also called “project-based learning” and “action-based learning,” requires the production of a final report or a presentation to the sponsoring organization (DeFillippi & Milter, 2009). This form of learning has been available as an elective course for some time in a number of MBA programs (Corey, 1990). More recently, there has been an increase in these courses not only as an elective but also as a required component of the MBA curriculum (Rynes & Bartunek, 2013).

A considerable amount of ambiguity and uncertainty surround field-based projects in which students rely on support roles that include teaching assistants, practitioners, alumni, and librarians who help them understand unfamiliar areas of the business. This is a key distinction of this instruction. Instead of leading the instruction, the professor, with the help of others, works in a coaching role to facilitate learning (Datar et al., 2010). This learning requires “more individual coaching and assessment, and thus … requirements for quantitative and qualitative increases in teaching effort and infrastructural support” (Skipton & Cooper, 2012, p. 36).

1.2 Problem Statement

This study identified the types of experiential field-based learning courses included in the top 20 U.S. two-year MBA programs (Boyington, 2014) and the roles that support them. The research examined how business librarians, as well as faculty, career services professionals, and other advisors supported the student teams who worked with experiential field-based learning courses. This investigation focused on how support was provided for credit courses vs. extracurricular activities. Two-year, full-time MBA programs that offer experiential learning opportunities for credit were targeted for this study because they represent the most typical,
established format for this type of degree in the United States (Hay, 2013; Khurana, 2007). In addition to examining the roles that support this pedagogy, this study analyzed the organizational dynamics of its design at several schools. Although the focus was the librarian role, the research considered the broader structure within which all the roles were interacting, and the intensive and varied support required for these projects.

Numerous studies in the business literature have found that managers need guidance in contending with information overload (Bawden & Robinson, 2009; Dean & Webb, 2011; Edmunds & Morris, 2000; Eppler & Mengis, 2004). In particular, there is a need for managers to develop skills in identifying and filtering relevant information from the abundance that is available (Farhoomand & Drury, 2002; Keeney, 2004). Experiential field-based learning projects offer a way to practice and develop these information-related skills by working on real projects (Corey, 1990).

This research surveyed the work of different librarians and how they viewed their role in experiential field-based learning. Studies on the involvement of librarians with FBL courses in MBA programs that support the development of information skills have been limited to case studies of single institutions (Berdish & Seeman, 2010). These studies have not provided a comparative analysis of FBL courses at different institutions. Previous research has also failed to examine the organizational support and network dynamics of this type of learning, and have focused instead on the pedagogical design features, such as type and length of projects and outcome expectations (Brown, Arbaugh, Hrivnak, & Kenworthy, 2013; Sciglimpaglia & Toole, 2010). This study attempted to address these gaps by reviewing the organizational structures and patterns of support provided by several MBA programs. However, this research did not
compare the effectiveness of one school’s model for FBL courses over another, which was beyond the scope of this study.

In the literature on the future role of the librarian, there have been calls for library support to be more integrated in the curriculum (Budd, 2005; MIT Ad Hoc Task Force on the Future of Libraries, 2016; Oakleaf, 2010). This study assessed experiential field-based learning in MBA education and the need for assistance in gathering information for decision making. The study examined how this method was included in MBA curricula, the roles that librarians played to support the informational aspects of this pedagogy, and the various models of integrated support.

This study examined the various configurations of FBL and the structure of support roles. In a world of “flipped” or inverted classrooms (Chuang, Weng, & Chen, 2016; Lage, Platt, & Treglia, 2000) where the “sage on the stage” (King, 1993) model of education is being disrupted, this examination of organizational roles within the experiential FBL component of the MBA curriculum could not be more timely. By looking at the role of the librarian, which has traditionally been passive and segregated from the educational process (Budd, 2005; Grassian & Kaplowitz, 2009) and how some MBA programs were more fully integrating this role, this study offers evidence on the shifting norms in MBA education and the new, emerging support roles. The major involvement of practitioners other than faculty in this pedagogy offers an alternative approach to the traditional academic model. The research focus on the various roles in experiential FBL in this study offers a different perspective and new insights in the ongoing debate about balancing theory and practice in the MBA curriculum.

The following four guiding questions framed this research:

*Research Question 1. What approaches to experiential field-based learning are used by the top 20 U.S. MBA programs?*
This research question sought to identify the types of experiential FBL opportunities that are offered by different MBA programs and the extent to which each program included information exploration and gathering. This research considered information activities to be secondary as well as primary source exploration, collection, and use. The research also examined whether this instruction was part of the schools’ required course work or if it was an elective course, which meant that some graduates never participated in this form of instruction.

**Research Question 2. What organizational structures are associated with the different types of experiential field-based project learning offered at these different programs?**

This question sought to assess and review the organization and coordination of experiential FBL at the different schools. The research identified those responsible for the overall pedagogical design and leadership of this learning, the location of these positions within the school, the grouping of the supporting roles that contribute to student learning, and the interaction of these groups with one another.

**Research Question 3. What are the perceptions of the outcomes of this learning on MBA students in general and in particular, on the quality of students' research and information gathering skills?**

This question reviewed the impressions of faculty, career services professionals, and business librarians about the influence and impact of their school’s experiential FBL on developing general student capabilities and more specifically, in identifying and using evidence for decision making after graduation and in the workforce. This included the professors' impressions of the quality of the student research projects, the integration of librarians in the FBL pedagogy, and the perceptions of the librarians’ contributions.
**Research Question 4. What are the roles and jurisdictional claim of those involved in the provision of this learning?**

This final question analyzed the roles involved in supporting FBL in the various programs, and investigated which roles were formal or informal, the functions of these different roles, and if they were providing information-related support. In MBA programs in which business librarians had formal roles within their program’s experiential FBL, the research identified the extent of the librarians’ integration in the curriculum, the type of activities in which they were involved, and any changes in job responsibilities that were necessary to accommodate this support.

**1.3 Theoretical Frameworks**

Theory, as defined by Johnson and Christensen (2008), “refers to an explanation or an explanatory system that discusses how a phenomenon operates and why it operates as it does” (p. 20). Role theory informed this research with an appreciation of the importance of assigned roles in determining how organizational systems function (Biddle, 2000; Hall, 2002). Role theory was considered in evaluating the current roles in place and changes that had taken place to influence any adjustments in roles. The other theoretical framework that guided this research was Abbott’s theory of professions (1988) and how this theory depicts the concept of various professions taking jurisdictional ‘claim’ for certain organizational roles. This research examined how this type of MBA experiential pedagogy affected the roles and professional jurisdictional claims of librarians and others who support FBL in the current business school landscape.

Role theory is based on the assumption “….that social systems are organized and operate through roles. Hence, roles function dynamically to structure the interaction of participants so as to maintain, defend, alter, innovate, or advance the purpose of social systems” (Biddle, 2000b, p.
Role theory provides a way to examine how individuals adapt to and shift roles in an organizational context (Biddle, 1986). This study assessed how institutions were using experiential FBL projects and the roles that supported these efforts, but did not examine the rationale for the choice of certain structures. The research not only looked at current roles in place but also changes that influenced further adjustments in roles. In this way, the data revealed the emergence of new roles.

Abbott’s theory of professions (1988) explains the dynamics of various professions taking jurisdictional ‘claim’ for playing certain organizational roles. For example, some librarians were moving into more of an instructional role as part of the experiential learning pedagogy. This research examined how librarians and other individuals who facilitate learning in these programs enacted their roles and how jurisdictions on various responsibilities were affected.

1.4 Organization of Dissertation

After this introductory chapter, Chapter 2 reviews the literature that is relevant to this study. This includes research on the information behavior of business managers, the need for information gathering and evaluation skills development in business education, recent recommendations for experiential FBL in the MBA curriculum, activities by academic business librarians to provide information literacy instruction, and a brief overview of role theory and how change affects occupational roles. Chapter 3 presents the research questions and describes the methodology used in this study that combined an online survey, interviews, and the development and analysis of six detailed case studies of the survey respondents. Chapters 4 and 5 present the findings of this study. Chapter 4 is organized into three sections that address the first three research questions. Chapter 5 answers the remaining research question and provides an analysis
of the roles that support FBL. The final chapter concludes this dissertation with a summary of key learnings, limitations of this study, the implications of the study results, and opportunities for future research.
Chapter 2

Literature Review

This literature review includes five themes in this study: 1) the information behavior of business managers, 2) the need for information gathering and evaluation skills in business education, 3) recommendations for experiential FBL in the MBA curriculum, 4) current activities that provide information literacy instruction in business schools and 5) an overview of role theory and how change affects occupational roles. In some of these areas, there is little published academic research. Thus, some literature is referenced from non-peer reviewed publications such as business education and professional magazines.

2.1 Information Behavior of Business Managers

Many studies have attempted to define what business managers do and their engagement with and use of information as a key component of their role (Drucker, 1974; Katzer & Fletcher, 1992; Mintzberg, 1973). In their book Business Information: Needs and Strategies, Abels and Klein (2008) suggested that “….the information world of business professionals is complex and is comprised of information that is both internal and external to the organization” (p.25). The information sources “include informal and formal as well as verbal and written” (p. 26). Abels and Klein describe how the most sought after information by business professionals was from interpersonal sources, and relied on a range of individuals such as colleagues, clients, and experts for information. “External business information sources [formed] only a relatively small portion of sources used,” they found (p. 26).

In recognition of the importance of information to business managers as professionals (Drucker, 1974; Mintzberg, 1973; Somers et al., 2014) and other professional occupations such as engineers, numerous studies have explored their information behaviors and practices (Case & Given, 2016; Leckie, Pettigrew, & Sylvain, 1996). Case and Given (2016) reviewed the
extensive research on the information behavior of various occupations that included managers and asserted that “…occupations have been the most common type of social role investigated” (p. 278). In a recent (2014) examination of this literature, Julien and O’Brien found that 61% of information behavior studies, in which the type of respondent was discernible, focused on occupational roles, with only 5% within the category of professional roles.

Leckie, Pettigrew, and Sylvain (1996) reviewed studies on the information behavior of engineers, healthcare professionals, and lawyers to inform the development of a general model of the information seeking behavior of all professionals. Through this review, they identified standardized characteristics of the types of professional roles and the associated information related tasks, and also recognized a potential constraining aspect that “…the information seeking activities of various types of professions are as diverse as the professionals they represent” (p. 178). One component of the information seeking model developed by Leckie et al. included “awareness of information” which identified that professionals could only refer to information of which they were aware.

Pinelli (1991) conducted research on the information seeking practices of aerospace engineers and scientists. Pinelli surveyed 1,627 aerospace engineers and scientists in academia, government, and industry with the majority of respondents (n=1044) from industry. Pinelli examined the influence of a number of institutional and sociometric variables on the reasons that engineers and scientists were likely to use four known, commonly referenced published sources: conference meeting papers, journal articles, in-house technical reports, and U.S. government technical reports. The institutional variables were “education, academic preparation, years of professional aerospace work experience, type of organization, professional duties, and technical discipline” (p. 21). The sociometric variables included “accessibility, ease of use, expense,
familiarity or experience, technical quality or reliability, comprehensiveness, and relevance” (p. 21).

The findings revealed that when engineers sought these four types of published information, no sociometric variable had a dominant influence. Pinelli admitted that among the variables that had a greater influence in his statistical analysis, only “a weak argument can be made for a relationship between relevance, technical quality or reliability, and comprehensiveness” (p. 251) over the other sociometric variables, and that the institutional, and not the sociometric variables, more likely explained the use of these sources. This research also found that respondents “prefer informal over formal information systems” (p. 261) and that their first choice was to solve problems on their own or with the help of colleagues and then to seek additional information from known, familiar sources. The respondents sought the help of a librarian or used a formal system for locating information such as an online index to publications only when the earlier options did not provide the needed information.

Pinelli (1991) reported that on a scale of one to five, librarians—with an average rating of 3.87—were considered to have a slightly higher level of importance to respondents than the other four information sources, whose average rating ranged from 3.51 to 3.84. However, this study’s examination of the actual use of various information sources by both managers and non-managers in this field found that “…use of personal store of technical information and collegial discussions are common to both. Asking a librarian either inside or outside of the organization ranked last for both groups as part of the overall information search strategy” (p. 226).

Matarazzo, in his 1991 review of the Pinelli study, observed that its results suggested that librarians needed to change their work to a more embedded approach. “If librarians want to become one of the sources first consulted by these engineers, then we must become a part of the
informal network of the engineer – more a colleague than the representative of the formal, and therefore, a source sought out last,” he said (p. 409).

In research on the information behavior of managerial professionals, Auster and Choo (1993) examined the environmental scanning practices of CEOs. They surveyed the environmental scanning behavior of 115 chief executive officers (CEO) in the Canadian publishing and telecommunications industries. The authors defined environmental scanning as “acquiring information about events and relationships in a company’s outside environment” (p. 202). Similar to Pinelli (1991), they found that personal sources such as managers, staff, customers, and associates were more frequently used by CEOs in contrast to reaching out to formal sources such as the company library. The research of Auster and Choo found that among the 16 types of information sources they investigated, “….the company library and electronic information services are not frequently used in their scanning” (p. 200). In terms of the source that most influenced the CEOs’ choices, “….perceived source quality is a more important factor in explaining source use than either perceived source accessibility or perceived environmental uncertainty” (p. 200). These results diverged from previous investigations that claimed that accessibility was a more important factor (Allen, 1977; Rosenberg, 1967; Gertsberger & Allen, 1968). Auster and Choo’s research also provided insights on how change and environmental uncertainty could increase CEOs’ information use.

In their review of forty years of literature on the information seeking behavior of managers, Alwis, Majid, and Chaudhry (2006) found that there were four dimensions to information source choices: contextual (work related), situational (organizational/environmental), personal/socio-cultural, and informational. One factor identified in the review
was the challenge faced by managers in effectively evaluating, filtering, and not being overwhelmed by too much information.

In terms of the processing and application of information, Keisler and Noonan (2012) pointed out that each manager’s decision involved a different mix of “…judgment, theory, and data… and will be filled in with different insights as decision makers triangulate from multiple channels” (p. 280). There have been some studies on how managers could benefit from making better use of data or information in their decision making; this is often referred to in the management literature as “evidence” (Baba & Hakem Zadeh, 2012; Pfeffer & Sutton, 2006). In their proposal for a theory of evidence-based decision making, Baba and Hakem Zadeh defined evidence as “a fact, organized body of information or observation, which is presented to support or justify belief or inferences” (p. 840). The authors argue that, based on an extensive literature review of studies on the use of evidence by managers, that “…the best evidence needs to be evaluated against methodological fit, contextualization, transparency, replicability, and consensus” (p. 841). Other studies have determined that to be effective at gathering evidence for decision making, managers should consider a wide range of evidence that offers a variety of perspectives (Kahneman, Lovallo, & Sibony, 2011; Keeney, 2004). Other research indicated that managers were not successfully using evidence in their decision making for many reasons, which included having a biased view to being overwhelmed by too much information or “information overload” (Baba & Hakem Zadeh, 2012; Pfeffer & Sutton, 2006).

Numerous studies in the business literature observed that managers needed guidance in effectively processing information that would confront overload (Bawden & Robinson, 2009; Dean & Webb, 2011; Edmunds & Morris, 2000). A review of these studies by Soucek and Moser (2010) found that “….information overload results from a discrepancy between the
amount of information people receive and (the limits of) their information process capacity. Accordingly, there are two general approaches to reducing information overload: (1) reducing the amount of incoming information and (2) enhancing recipients’ information processing capabilities” (p. 1459). In their extensive review of the literature on information overload in diverse management disciplines, Eppler and Mengis (2004) highlighted the urgency of providing guidance to help business professionals improve their ability to process information:

There is a wide consensus today that heavy information load can affect the performance of an individual negatively (whether in terms of accuracy or speed). When information supply exceeds the information-processing capacity, a person has difficulties in identifying the relevant information…, becomes highly selective and ignores a large amount of information…, has difficulties identifying the relationship between details and the overall perspective…, needs more time to reach a decision…, and finally does not reach a decision of adequate accuracy. (p. 331-333)

An article that reviewed the research of Bawden and Robinson (2009), entitled The Dark Side of Information: Overload, Anxiety, and Other Paradoxes and Pathologies, maintained that there was a need for a more purposeful, focused approach to information gathering. “There is simply too much choice of potentially relevant diverse information readily available for a ‘perfectionist’ approach to be feasible, except in the most unusual circumstances. The important point is that this must be practiced rationally, rather than arbitrarily or thoughtlessly, as anecdotal evidence suggests is all too often the case” (2009, p. 187). Studies indicate that providing instruction, guidance, and practice that induces more confidence in information gathering techniques could help make managers more adept “information consumers” (Eppler & Mengis, 2004, p. 334).

2.2 The Need for Information Skills Development in Business Education

In view of these challenges faced by business professionals in effectively using information, it was not surprising that discourse on the reform of the business education
curriculum has included the need for students to develop information gathering skills (Boyatzis, Cowen, & Kolb, 1995; Datar et. al, 2010; Dacko, 2006; de Onzono, 2011; Glen, Suciu, & Baughn, 2014; Navarro, 2008). These studies subsumed these skills as a component of the problem solving and critical thinking abilities that students needed to develop to become shrewd information-using professionals. In addition, there has been a growing amount of research that supports the benefits of teaching evidence-based decision making in the business school classroom (Erez & Grant, 2014; Rousseau & McCarthy, 2007). Developing the information gathering skills of business students had also been specifically addressed by some management educators (Castleberry, 2001; Gunasekara, 2008; Hawes, 1994; Hilliger & Roberts, 2001; Julien, Detlor, & Serenko, 2013; O’Connor, 2008).

In describing the characteristics of full-time MBA students, Garvin (2007) stated that the students were “…typically in their mid-to-late 20s, with three to five years of business experience. Most of that work experience has been in relatively low-level positions, such as analyst, associate, or individual contributor roles. Most MBAs have had limited exposure to the realities of organizations and management practice” (p. 369). Although this description is from 2007, it is an accurate description for today (Stainburn, 2014). The most common MBA program format is the two-year, full-time program, where students will normally participate in a paid internship at a company in the summer in between school years. However, it is worth noting that other options for these students are available and are increasing every day given the popularity of this degree (Hay, 2013; Stainburn, 2014).

The book, *Rethinking the MBA* (Datar et al., 2010), surveys current practice at many of the top business schools and offers an extensive review of recent discussions about the need for
changes in the MBA curriculum. In the area of developing skills to effectively gather information for decision making, the authors observed that:

MBAs are not good at seeing around the corner or detecting discontinuities. They need to learn how to collect information – how to cultivate and develop great sources, to find the expert wheel-maker and learn from him” (p. 97). In order to make proper sense of the information gathered, the authors highlighted how communication skills and the effective use of information are integrally linked. They [MBAs] should have a compelling point of view, marshal supporting evidence in a convincing fashion, distinguish fact from opinion, and flow logically and consistently from beginning to end. Clear thinking and effective communication are closely linked. (p. 98)

2.3 Recommendations for Field-based Learning (FBL) in the MBA Curriculum

There has been much debate at many educational institutions that offer MBA degrees about the best approach for preparing today’s students for the 21st century information-rich workplace. Many have raised concerns that MBA programs overemphasize a rational-analytic approach and are not providing the practical skills graduates need such as identifying and gathering information to gain insight in unfamiliar areas (Bennis & O'Toole, 2005; Ghoshal, 2005; Khurana, 2007; Mintzberg, 2004; Pfeffer, 2007; Thomas, et al., 2013).

Business schools overemphasis on rational analytics in teaching and research has come at the expense of the practical, yet open-ended issues that managers regularly encounter… The analytic approach may lead one to overweight knowledge based on available data that can be readily analyzed, blinding one to other perspectives. (Glen et al., 2014, p. 655)

While such critiques were not new (Cheit, 1985; Hayes & Abernathy, 1980), a number of programs have recently implemented major changes that range from complete overhauling the curriculum to initiating new types of courses and immersive activities (Datar et al., 2010; GMAC, 2013). One recent study (Thomas, Thomas, & Wilson, 2012), sponsored by the European Foundation for Management Development (EFMD), summarized the problem with the MBA curriculum: “Overall, the evidence implies that a lack of focus on practice, teaching in
silos with no integration, and a focus on rational managerial behavior and academic research, all reduce the effectiveness of management education in teaching the art of managing” (p. 18).

Datar, Garvin, and Cullen (2010) ascertained that one of the key concerns -- in addition to more global perspectives and an emphasis on leadership and ethics -- of formal business education programs in universities was “how to balance the demands of scholarship and practice” (p. 75). They defined this as a gap in “being and doing” vs. the “knowing” of management, and identified experiential learning as a way to address this issue. “Experiential learning offers a special opportunity to narrow the knowing-doing gap. It provides a uniquely different dimension to business education by giving students the chance to define and scope problems, test ideas in practice, recognize the constraints placed by organizational realities, think innovatively, and recognize the need to reconcile multi-disciplinary and sometimes conflicting perspectives,” they said (p. 157).

Experiential learning theory has a long tradition (DeFillippi et al., 2009; Kolb & Kolb, 2005). This type of learning has also been cited in the literature by other names such as field-based learning or practice-based learning (Randolph & Nielsen, 2008), project-based learning (DeFillippi et al., 2009), action-based learning (Revans, 1983), or work-based learning (Raelin, 1997). This type of pedagogy offers a way for students to practice their problem solving abilities, which is a competency that research indicates is highly valued by employers:

Executives and recruiters are critical of MBA graduates for their limited understanding of organizational realities and underdeveloped execution and implementation skills…The enthusiasm for experiential learning in MBA programs comes from deans, faculty and executives increasingly recognizing that critical aspects of managing and leading are learned most effectively through practice rather than through traditional classroom based pedagogies. (Datar et al., 2010, p. 148)

In a survey of the top 50 American MBA programs, Navarro (2008) found that “….experiential exercises range from real world business and consulting projects to management
game simulations and business plan competitions” (p. 114). Navarro’s research found that “….many schools appear not to require significant integrative and experiential elements in their core” (p. 116). However, Sciglimpaglia and Toole (2010) found experiential field-based projects widely used in U.S. business schools but did not specify if this type of learning was required or optional. In a study of “168 graduate management programs [worldwide] that had revised their core curriculum between 2009 and 2011” (Rynes & Bartunek, 2013, p. 182), almost all of the full-time MBA programs in the survey included courses with experiential field-based projects, with 29% requiring such projects for graduation and 67% offering the projects as an optional elective.

As DeFillippi and Milter (2009) proclaimed, this experiential type of pedagogy is learner-centered, because students are required to direct their own learning. “Project and problem based learning methods draw upon a constructivist perspective on learning, in which students are responsible for constructing meaning from their experience. In each mode, education is thus learner-centered rather than teacher directed. Indeed, the role of the instructor is more focused on providing facilitation and social and technical support than explicit direction or knowledge transfer,” the authors said (p. 345). The authors stated that a key distinction of problem vs. project-based learning was “….that project-based learning involves the construction of a concrete artifact or project deliverable (the draft of a design or an end product) as an outcome of project work.” (p. 350).

One example of an MBA program that included experiential FBL learning was the Ross Business School at the University of Michigan. This school required a team FBL project entitled the “multidisciplinary action project (MAP).” An article in the Association to Advance
Collegiate Schools of Business (AACSB) publication *BizEd* described the structure of this course:

In January, students form five-person teams and bid on the projects they’d most like to tackle. Once they’ve been assigned their projects, students attend weekly advising meetings with faculty and tap the expertise of research consultants, librarians, communications coaches, and second-year MBAs. The school integrates such milestones and points of contact to keep student teams on track. At the end of the course, students deliver their recommendations to the client. (Bisoux, 2011, p. 30)

As this description suggests, various facilitation roles can support experiential FBL projects.

This was a key distinction of this instruction (Raelin, 2010). Rather than the professor leading instruction, the professor, as well as others, supported the students in more of a coaching role that facilitated learning.

The organization, planning and coordination of experiential learning courses, particularly when done at scale, require substantial human and financial resources. Students need support as they work in teams on messy, complex and ambiguous problems in unfamiliar, difficult and high-pressure situations. Without proper support, teams can become dysfunctional, considerably diminishing the benefits of experiential learning. (Datar et al., 2010, p. 157)

Skipton and Cooper (2012) also suggest that ‘real-world’ experiential learning in business schools can “….require more individual coaching and assessment, and thus … requirements for quantitative and qualitative increases in teaching effort and infrastructural support” (p. 36). However, despite these challenges in adequately providing the needed support, it has been shown that this pedagogy could reap significant benefits, enriching the student experience and credentials they brought to the workplace, and helping schools build stronger relationships with companies, recruiters, and alumni (Bisoux, 2011).

### 2.4 Information Literacy Instruction in Business Schools

The provision of instruction on effective information gathering and use has been referred to in library and information science as information literacy (Grassian & Kaplowitz, 2009).
Zurkowski introduced the concept in 1974 to encompass a more comprehensive view of information instruction rather than the previous, more confining term of bibliographic instruction (Badke, 2010; Eisenberg, Lowe, & Spitzer, 2004). Since the concept was introduced, a number of competency standards in information literacy have gained acceptance as guidance for teaching these skills (Eisenberg et al., 2004). The standards developed by the Association of College and Research Libraries (ACRL) in 2000 and reconceptualized in 2016 have been the most frequently adopted standards, particularly by academic libraries. Unlike previous standards, this “new framework is not based on a step-by-step definition of information literacy but instead is based on a much more integrated set of core competencies” (Berkman, 2016, p. 1). The new framework is “organized into six frames, each consisting of a concept central to information literacy, a set of knowledge practices, and a set of dispositions. The six concepts [are]…

authority is constructed and contextual, information creation as a process, information has value, research as inquiry, scholarship as conversation, [and] searching as strategic exploration” (ACRL, 2016, p. 2).

The need to provide instruction in the language of business vs. the library language of ACRL was raised in O’Sullivan’s 2002 article “Is information literacy relevant in the real world?” O’Sullivan emphasized that the discourse on information literacy had largely taken place in the academic library domain, and speculated that in the area of business, “…We must search for new ways of describing information literacy, and align it with business concepts” (p.

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1 The former version of the standards was formally rescinded by the ACRL Board of Directors in June, 2016 (Drabinski, 2016). It is worth noting that ACRL is the largest professional association of academic librarians in the U.S.; there was much activity and discussion around the creation of this new framework which is deliberately broad in scope to counter criticisms of the earlier standards as too narrow. The ACRL recommends that “neither the knowledge practices nor the disposition that support each concept are intended to prescribe what local institutions should do in using the Framework; each library and its partners on campus will need to deploy these frames to best fit their own situation, including designing learning outcomes. For the same reason, these lists should not be considered exhaustive” (ACRL, 2016). For more on the debates around the adoption of this new framework, see Foasberg, 2015.
13). In 1991, a report issued by the U.S. Department of Labor Secretary’s Commission on Achieving Necessary Skills (SCANS) stated that information literacy was one of the five essential competencies for solid job performance (Cheuk, 2002). Other symposia and initiatives have highlighted the need for information literacy skills in the workplace (Grassian & Kaplowitz, 2009). Matarazzo and Pearlstein (2014) provided additional evidence of this need.

Some information literacy standards and instructional frameworks specific to the workplace have been proposed (Bruce, 1999; Cheuk, 1998; Cheuk, 2002; Kirton & Barham, 2005; Leigh & Gibbon, 2008; Lloyd, 2006). All incorporate some attributes of the competencies recommended by ACRL, although they emphasized that the ACRL standards focused on academic research and did not resonate with information use in the workplace. With a focus specific on business students, Cullen proposed a “Conceptual Framework for MBA Information Skill Development” (2013a, p. 415). This framework emerged from primary and secondary research on the information skills that MBAs should possess. The framework included factors that influence the design of this type of instruction and five dimensions of the desired skills.

Business schools have a history of developing curriculum differently from other schools in the university because of their traditional, heavy reliance on the case method (Datar et al., 2010). Consequently, the support provided by the library for curriculum development has been different. With the case method of instruction, there was less need for student research because the case typically includes all the data used for the class discussion (Berdish & Seeman, 2011). Business school programs typically included stronger career support for students, with a large focus of their librarians on helping MBA students with research to prepare for interviews and career exploration (Barnhart & Ogur, 2014). Historically, business libraries served as document warehouses with entire sections designated for storing company annual reports and
Securities & Exchange Commission (SEC) filings -- when they were only available in print, microfilm, or CD-ROMs -- as well as extensive holdings of reference volumes, indexes, and trade publications in these formats (Bogardus, 1970; Pagell, 2003). Since almost all research resources used by business schools are now available online, many business libraries have decreased in size or had their library eliminated altogether, which required operating the library from staff offices (Dreyer & Bakkalbasi, 2015). As a result, libraries had more resources available to focus on services such as instruction and supporting curricula rather than supervising a space that houses books, documents, and other business research-related resources (Seeman, 2015a).

There were a number of examples in the literature of business librarians providing instruction. Klusek (2012) provided an overview of the variety of engagements that ranged from indirect activities such as creating online research guides to being very involved in serving as “educational planner” (p. 195) in the design of information instruction and use in a specific course. Another example of a fairly extensive engagement of business librarians designing and providing instruction with an MBA program was the core curriculum of Goizueta Business School (GBS) (Crenshaw, 2016; Cullen, 2013b) at Emory University. A distinguishing characteristic of this instruction was its conceptual viewpoint on the effective use of evidence, which was a critical component of MBA instruction (Datar et al., 2010). The GBS program required a full-semester experiential learning course entitled “Management Practice”2 that all MBA students completed during the first semester of the program. The students were also required to select from six experiential field-based learning elective courses. According to a survey of U.S. business school library directors in a recent unpublished study of the Academic Business Library Directors of North America (ABLD) with a 67% response rate from its

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2 While the content remains generally the same, as of fall 2016 this course was renamed Goizueta IMPACT.
membership of over 40 institutions. (Cullen, 2013b), no other MBA program among the respondents was partnering with their library to this extent.

One motivation for the different way instruction had been designed in the GBS MBA program was in response to personal experience and research that showed in curriculum activities, librarians did not always effectively communicate how their expertise added value (Anthony, 2010; Cullen, 2013c; Julien et al., 2013; Julien & Pecoskie, 2009; Saunders, 2012). Consequently, completely new methods of explaining core ideas were developed to support this instruction. These were encapsulated in five “business intelligence” frameworks created with the program’s associate dean to communicate the key concepts (Cullen & Noonan, 2014a-e) that were derived from research which identified the role of data and evidence in decision making (Keisler & Noonan, 2012).

There have been few surveys of how librarians provide instruction across business school programs. The Academic Business Library Directors of North America (ABLD), which represents libraries from all the major business schools in the United States (ABLD, 2013), published its annual meeting reports in the *Journal of Business & Finance Librarianship* from 1998 to 2008 (Buxbaum, 2003; Buxbaum, 2004; Carner, 2006; Doan, 2007; Doan, 2008; Mento, 1997, 1998, 2000, 2001, 2002; Popovich, 2005), and more recently in their online publication *Ticker* (Seeman, 2015b). These reports included the highlights of activities at various business libraries cited at their annual conference and were not comprehensive surveys of member operations that included instruction.

A 2001 survey administered by Abels and Magi was the most recently published systematic review of the operations of academic business libraries. These authors focused their review on the libraries of the top 20 U.S. MBA programs based on the most recent *U.S. News &
World Report ranking (1999). Abels and Magi reported the resources and the services of the business libraries in the survey, including instruction, and found that “….there seems to be a preference for user education sessions that focus on topics over resource specific sessions” (p. 17). However, this survey did not report further descriptions of how business librarians were working with their business school’s curriculum.

A recent book entitled *Business School Libraries in the 21st Century* (Wales, 2014) reviewed the challenges and worldwide opportunities faced by these libraries. The final chapter included the results of a survey of academic business library director groups from North America, Asia-Pacific, and European regions on key challenges their libraries would face in the future. There were 23 business librarians who responded to this survey from the total combined membership of over 90 members in the Academic Business Library Directors of North America (ABLD), European Business School Librarians’ Group (EBSLG) and Asia-Pacific Business School Librarians’ Group email lists. The only emerging theme included about instruction was the following statement: “….the relationship between the library and teaching – comments related to the rapid changes to curriculum and the disconnect between library and teaching staff” (p. 195).

A recent unpublished study by Cullen (2013b) included a survey of the ABLD membership with a 67% response rate. This survey revealed that most of the business libraries were providing some form of training or instruction for their MBA program’s core and elective curricula. However, in measuring the scope and extent of engagement in the required MBA curriculum, “….for the majority, less than 1% of total core course hours were devoted to in-class teaching by librarians” (p. 54). This measurement indicated the extent of the integration of librarians with the curriculum. This assumed that a librarian in the classroom teaching indicated
a particularly high level of partnership and engagement. However, although there might be other approaches to measuring the extent of MBA curricular integration of librarians, this review of the literature failed to identify any such studies.

One form of intensive partnership between business librarians and their key stakeholders in curriculum and information literacy instruction is embedded librarianship. In the past ten years, this practice has increasingly been adopted by academic librarians as a way of providing curricular support. Embedded librarianship was defined by Shumaker and Talley (2009) as:

Focusing on the needs of one or more specific groups, building relationships with these groups, developing a deep understanding of their work, and providing information services that are highly customized and targeted to their greatest needs. It involves shifting the model from transactional to high trust, close collaboration, and shared responsibility of outcomes. (p. 9)

In his overview of embedded librarianship in academic libraries, Brower identified the following elements of these engagements: “…Embedded librarians collaborate with users…[They] form partnerships on the department and campus Level,, Provide needs based services,…Offer convenient/user-friendly services outside of library settings,..become immersed in the culture and spaces of our users” (2011, p. 13). Hines (2013) identified two challenges librarians faced in approaching and deploying this level of engagement; these included the amount of time required to do it well and the communication and outreach skills necessary for making the necessary connections and developing trust. Nevertheless, some business librarians have engaged with their curriculum by following this model (Berdish & Seeman, 2011; Li, 2012). Examples found in the literature of business librarians that supported field-based learning (FBL) projects from the top 20 U.S. MBA programs included the business libraries at Harvard Business School, Anderson School of Management at the University of California, Los Angeles (UCLA), Goizueta Business School at Emory University, and the Ross School of Business at the
2.5 Role Theory and How Change impacts Occupational Roles

Role theory first emerged from research in the 1930s, when social scientists began to seriously consider that “….social life could be compared with the theater, in which actors played predictable roles” (Biddle, 2000, p. 2415). “The underlying assumption of role theory at the broadest level is that social systems...are organized and operate through roles. Hence, roles function dynamically to structure the interaction of participants so as to maintain, defend, alter, innovate, or advance the purpose of social systems,” Biddle said (p. 2421). In the area of occupational roles, this theory had been used to examine organizational behavior, design, and “…the formal designation of roles that organizational actors are assigned to play,” Biddle added (p. 2422).

The factors that influence changes in roles could be both external, such as socio-technical shifts, as well as internal intra-organizational realignments (Van DeVen & Poole, 1995). As Bradley (1996) pointed out: “Change is emergent. The results are not predetermined but unfold through incremental action and reaction of the participants” (p. 2). Biddle (1986) had professed that organizational roles change under two dynamics, either those in a role agreed on a need for change (consensus) or outside forces induced roles to change (conformity). As Zai (2014) suggested,“….consensus implies that any normative agreement has been the result of individual agency; whereas conformity implies a pressured norm compliance” (p. 10).

Abbott, in his book The System of Professions (1988), asserted that information professionals were part of a profession where roles were likely to change more often. “Deciding what is relevant information inevitably embroils the information client and the information
professional. The information professions are, by definition, involved in continuously, negotiated and contested professional divisions of labor,” Abbott said (p. 223). In his analysis of the features that affect the development of various distinct professional roles, Abbott highlighted the topic of “jurisdictional claim” as an important element of what was at play when roles were emerging to identify or lay claim to a certain tasks for their role. “In most professional work settings, actual divisions of labor are established through negotiation and custom, that embody situation-specific rules of professional jurisdiction,” Abbott said (p. 65). When organizational change occurred, these roles “must then be renegotiated, with the common result that boundaries of actual professional jurisdiction change to accommodate organizational imperatives,” he concluded (p. 65).

An example of an information profession facing transition is medical librarianship. In 2013, McMullen and Yeh conducted a survey on changing job descriptions in medical librarianship. A total of 165 institutions responded to the survey. Almost all of the respondents (98%) were from hospital libraries or academic health science libraries. They reported that “….changes in access and delivery of information” (p. 249) ranked highest of the reasons given by respondents for changes in job duty. Other reasons cited by the respondents were that “user needs were changing, budget constraints, and technological developments” (p. 249). However, the survey found that instead of creating new positions to respond to these shifts, the majority of respondents were simply changing what they did in their current role. These shifts of roles mirrored the experiences of the information systems management sector where changes in “access and delivery of information” had also resulted in changes in the skills required to perform existing occupational roles (Applegate & Elam, 1992).
One significant change in academic librarian roles was the shift from “access provider” to that of educator (O’Connor, 2009). The dynamics underlying this shift occurred as more resources were available remotely online rather than in the library building. Without being encumbered by the limitations and constraints of a physical collection, Zai (2015) contended that librarians had an enhanced capacity to shift to the role of educating students on identifying, gathering, and evaluating information. Zai referenced role theory in his discussion of this shift. In A Role Theory Approach to Librarians Teaching, Zai (2015) identified challenges that librarians were facing in this role, and cited that “…academic librarians have coalesced around three competing models of IL [information literacy] instruction: the course-integrated, the credit-bearing, and a small array of hybrid models” (p. 13-14). Zai concluded the article by summarizing how academic librarianship was a field in flux now that many responsibilities connected with supporting a physical library collection no longer exist:

Until recently, academic librarianship was a largely homogeneous and stable profession. The scope of academic librarianship was known, and success was a matter of proficiency in the selection, organization, and the accessibility of information. However, within the IT era, librarians have increasingly sought out new roles and explored new jurisdictions and the result has become an increasingly heterogeneous and strained profession. It is difficult to imagine that academic librarians will arrive at a consensus concerning their instructional role anytime soon. (p. 20)

In contrast to surveying the changing job responsibilities of librarians, Cox and Corrall (2013) explored the changing nature of work roles in academic libraries. Cox and Corrall examined new academic library specialties such as informationists and information literacy educators using Abbott’s 1988 “theory of professions” as a frame of reference for their evolving development and establishment in the profession. By considering how these roles might impinge on the claims from professional jurisdictions, such as faculty research and teaching, Cox and Corrall’s concluded that “…the information identity is more blurred, less easy to explain
especially in any case where professionals are embedded in multidisciplinary contexts” (p. 1538), and they suggested that the success of these new roles would be based upon:

A number of factors, including the efficacy of the profession’s knowledge base in that area or its ability to absorb other knowledge bases, the plausibility with which new roles can be equated to the existing public image of the profession, and the organization and posture of other professions that are jostling for position. (p. 1538)

Cox and Corrall suggested that these new roles would “demand high level influencing and collaborative skills to work with others effectively” (p. 1538). In addition they alluded to a success factor supported by extensive research on coping with occupational change to suggest that those with a higher “tolerance of ambiguity” will fare better in adapting to new roles (Judge, Thoresen, Pucik, & Welbourne, 1999).

Thus, as librarians and others have adapted to changing roles, the theoretical research on roles and change supported the position that technical skills and psycho-social skills affect their success in coping with the changing information and organizational landscape. Role theory and Abbott’s concept of professional jurisdictional claim provide approaches for examining the existing and emerging dynamics of occupational roles.
Chapter 3  
Methodology  
3.1 Participants and Design

The sample for this study included the top 20 U.S. MBA programs based on the 2015 ranking from *U.S. News & World Report* magazine (Boyington, 2014). This exploratory study described how these schools were using experiential learning during the timeframe of data collection, which was initiated in May 2015 and completed in December 2015.

Two-year, full-time MBA programs were targeted for this study because they are representative of the most typical and established format for this type of degree (Hay, 2013; Khurana, 2007). Table 3.1 presents the schools in the top 20 ranking of two-year, full-time MBA programs.

Table 3.1  
*Top 20 U.S. Full-time MBA Programs (U.S. News & World Report, 2015)*

<table>
<thead>
<tr>
<th>Rank</th>
<th>School</th>
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<tr>
<td>#1</td>
<td>Harvard University, Boston, MA</td>
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<tr>
<td>#1</td>
<td>Stanford University, Stanford, CA</td>
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<tr>
<td>#1</td>
<td>University of Pennsylvania (Wharton), Philadelphia, PA</td>
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<td>#4</td>
<td>University of Chicago (Booth), Chicago, IL</td>
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<tr>
<td>#5</td>
<td>Massachusetts Institute of Technology (Sloan), Cambridge, MA</td>
</tr>
<tr>
<td>#6</td>
<td>Northwestern University (Kellogg), Evanston, IL</td>
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<tr>
<td>#7</td>
<td>University of California—Berkeley (Haas), Berkeley, CA</td>
</tr>
<tr>
<td>#8</td>
<td>Columbia University, New York, NY</td>
</tr>
<tr>
<td>#9</td>
<td>Dartmouth College (Tuck), Hanover, NH</td>
</tr>
<tr>
<td>#10</td>
<td>New York University (Stern), New York, NY</td>
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<tr>
<td>#11</td>
<td>University of Michigan—Ann Arbor (Ross), Ann Arbor, MI</td>
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<td>#11</td>
<td>University of Virginia (Darden), Charlottesville, VA</td>
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<td>#13</td>
<td>Yale University, New Haven, CT</td>
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<td>#14</td>
<td>Duke University (Fuqua), Durham, NC</td>
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<tr>
<td>#15</td>
<td>University of Texas—Austin (McCombs), Austin, TX</td>
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<tr>
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<td>University of California—Los Angeles (Anderson), Los Angeles, CA</td>
</tr>
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<td>#17</td>
<td>Cornell University (Johnson), Ithaca, NY</td>
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</tbody>
</table>
Rubin and Dierdorff (2009) confirmed the primary use of rankings as a measure of leading business schools when they stated that “…although highly imperfect and notably critiqued, no other reputation indicator has attracted more attention than that of media rankings…rankings are an integral factor in business school policy making” (p. 212). As emphasized by Pagell (2003):

Rankings of business schools are important for the recruitment of students and faculty and for the placement of graduates in top positions…Two magazines *U.S. News & World Report* and *Business Week* have become the standards for ranking MBA programs. Although other programs such as the undergraduate, evening, and executive education programs are also rated, it is the [full-time, two-year] MBA rankings that drive the competition. (p. 23)

Broadly referenced as a benchmark for American business schools (Pagell, 2003; Rubin & Dierdorff, 2009), the *U.S. News & World Report* ranking was selected as a means to identify the top 20 schools for this research. The placement of these schools in the highest rankings also served as an indication of a more dynamic, more adequately resourced curriculum that would be more likely to offer innovative types of courses that included FBL projects. The 20 programs examined in this study varied in size from programs with a few hundred students to those with over 1,000 full-time students. Some programs offered only two-year, full-time MBA programs, while others offered a diverse variety that included evening MBAs, weekend MBA programs, and accelerated programs. The commonalities in much of the curricular content in these 20 programs reflected the standards imposed by the Association to Advance Collegiate Schools of Business (AACSB), the organization that accredits these business schools.
Purposive sampling was used to select the subject population of librarians who were initially surveyed for this study (Gillham, 2008). As Gillham states, this method is appropriate when “researchers have a clear idea of the kind of group they are interested in and an approximate idea of what they want to find out” (p. 20).

The research design was a descriptive multiple-case study (Eisenhardt, 1989; Yin, 2014), with the data collected in two ways. First, the researcher sent an online survey using Qualtrics software to a business librarian at each of the 20 schools. From this initial survey, six MBA programs were identified for more in-depth study as cases. Following the requirements of the descriptive multiple-case study method, the six programs were selected by their similar characteristics (top two-year U.S. MBA programs) as well as contrasting features such as program size and their approach to and support for experiential field-based learning projects (Yin, 2014).

Guiding questions were used to conduct this exploratory investigation of the involvement of MBA programs in experiential field-based learning (FBL) pedagogy and the role of librarians and other roles in supporting this curriculum. Each research question (RQ) posed for this investigation as well as the sub-questions considered in the design of the research instruments are listed below.

RQ1. What approaches to experiential field-based learning are used by the top 20 U.S. MBA programs?

a. What types of field-based experiential learning project opportunities do the different programs offer?
b. To what extent is information exploration and gathering work involved in the approaches of these different programs?
c. Where in the required and/or elective curricula is this instruction located?
d. Is completion of an experiential field-based learning project course required for graduation?
RQ2. What organizational structures are associated with the different types of experiential field-based project learning offered at these different programs?

a. Where in the organization is coordination of field-based experiential learning located at the different schools?
b. Who is responsible for the overall pedagogical design and leadership of this learning? Who does this person report to in the organization?
c. How are supporting roles grouped to contribute to student learning?
d. How are these groups interacting to provide this support?

RQ3. What are the perceptions of the outcomes of this learning on MBA students in general and in particular in terms of the quality of students’ research and information gathering for these projects?

a. What are professors’ impressions of the quality of the research of student projects?
b. Are there differences in faculty perceptions when librarians are extensively integrated as part of the field-based experiential pedagogy as opposed to when they are not?
c. What are the impressions of faculty, career service professionals, and business librarians of the influence and impact of their school’s field-based experiential learning on developing students’ capabilities in general; as well as in identifying and using evidence for decision making after they graduate and are in the workforce?

RQ4. What are the roles and jurisdictional claim of those involved in the provision of this learning?

a. Occupational title - Librarian, technologist and other roles
b. Relationship of the role to FBL
   i. What are the formal and informal roles that support the delivery of the field-based learning project curriculum at these programs?
   ii. What do different roles do and which of them are providing information related support?
   iii. What roles are business librarians currently playing in FBL activities at these programs and are these roles formal or informal?
   iv. If business librarians have formal roles with their program’s field-based experiential learning, how extensively are they integrated in this curriculum? What learning activities are they involved with? Since this type of curriculum has been introduced, have job duties changed to accommodate supporting it?
3.2 Data Collection

Table 3.2 identifies the data collection methods used to address each of the research questions. Appendix A provides a detailed list of the instruments used to gather information that would answer each research question and sub-question. To confirm the robustness of these data collection methods, a pilot study was conducted with a U.S. two-year MBA program that was not included in the Top 20 list (Cullen, 2015).

Table 3.2

*Data Collection Methods*

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Data Collection Method (See Appendix A for the actual instruments used)</th>
<th>Research Questions (RQ) Answered with this method</th>
</tr>
</thead>
<tbody>
<tr>
<td>One librarian connected with each of the Top 20 MBA programs</td>
<td>Email questionnaire with mostly closed questions</td>
<td>RQ1 and RQ4</td>
</tr>
<tr>
<td>Website review for six of the Top 20 MBA programs</td>
<td>Website of each school searched for information on experiential field-based learning projects in the curriculum.</td>
<td>RQ1 and R2</td>
</tr>
<tr>
<td>Professor at each of the six case study institutions</td>
<td>In-person or phone interview</td>
<td>RQ1, RQ2, RQ3, RQ4</td>
</tr>
<tr>
<td>Career services professional at each of the six case institutions</td>
<td>In-person or phone interview</td>
<td>RQ3 and RQ4</td>
</tr>
<tr>
<td>Business librarian at each of the six case study institutions</td>
<td>In-person or phone interview</td>
<td>RQ3 and RQ4</td>
</tr>
</tbody>
</table>

The data collection commenced with the online survey that was distributed in May 2015; all responses were received by June 30, 2015. The survey asked business librarians to identify their organizational reporting structures and how they were working with experiential field-based learning projects. For details on the survey questions, see Appendix B, which also includes the participant consent form that was approved by the Simmons College Internal Review Board. A librarian at 19 of the 20 schools responded for a response rate of 95%. The online survey included a question that asked if the respondent was interested in more in-depth participation in
this study. Of the eight schools that volunteered for more in-depth participation, six were
selected as case studies.

Table 3.3

| Characteristics of Six Institutions Selected to be Case Studies |
|---|---|---|---|---|---|---|---|
| MBA Program 1 (MBA1) | (1-10) | n | 1270 (1000-2000) | private | Located in the business school but reporting to, and funded by, the central library administration. | 4 | no | 2 |
| MBA Program 2 (MBA2) | (1-10) | y | 558 (300-600) | private | Located between the business and engineering schools, are funded by both schools, report to central library and both schools. | 3 focused and on occasion | yes | 3 |
| MBA Program 3 (MBA3) | (11-20) | y | 384 (300-600) | private | Located with the main library and report to the central library and business school dean, but funded by the business school. | 5 | yes | 2 |
| MBA Program 4 (MBA4) | (11-20) | y | 708 (600-1,000) | public | Located in the business school and report to the central library administration. Co-funded by business school and central library. | 3 | yes | 2 |
| MBA Program 5 (MBA5) | (11-20) | y | 886 (600-1,000) | public | Report to and funded entirely by the business school. | 8 | yes | 1 |
| MBA Program 6 (MBA6) | (1-10) | n | 1711 (1000-2000) | private | Located within the main library and report to, the main library. | 6 | no | 1 |

Table 3.3 depicts the characteristics of the six programs chosen as case studies.

Throughout this dissertation research, each MBA program that served as a case is identified by a
number such as MBA1. Half of the programs were in the 1-10 rankings with the others in the
11-20 rankings. A third of the programs were in the lower range of student enrollment from 300
to 600 students; a third were in the middle range of 600 to 1,000; and a third in the upper range
with 1,000 to 2,000 students. In four of the case studies, field-based learning courses were a
required part of the curriculum; in these four programs, business librarians had a formal role in the curriculum. Of the eight programs that volunteered to participate further in case studies, these four were the only programs in which the business librarians had a formal role in the experiential field-based learning curriculum.

After the six institutions were identified, data were collected from their websites on their FBL course offerings (RQ1) and the organizational structures that supported this pedagogy (RQ2). In addition to informing the proposal for this dissertation (Cullen, 2015), a review of all 20 school websites was conducted in spring 2015 to gather information on whether the programs offered experiential field-based learning and whether it was required or only an elective course. The website review for the six case studies was conducted in September of 2015 before interviewing for the case studies commenced. The review of websites followed the method used by Rubin and Dierdorff (2009) to identify manifest content related to FBL at the schools. The recording units (Wildemuth, 2009) used to track descriptions of relevant content were the pages from each business school’s website. As a means to track the sources of all information, content was copied and pasted into an Excel spreadsheet. This spreadsheet included each cited quote, the website source of that information, and the date of retrieval. A summary of the results of the six website reviews was created and used for analysis by this researcher but is omitted from this report because the institutions could be identified.

In total, 18 interviews were conducted in the fall of 2015. Interviews were conducted with a career services professional and a business librarian from each of the six schools. A faculty member who taught in the experiential field-based learning curriculum and was responsible for evaluating final project deliverables was also interviewed in five of the six programs. All interviews were with one individual except one. For five of the case institutions,
the interview with the business librarian was conducted with the head of the business library. In one interview, the researcher met with three business librarians at the institution as a group that included the head and two other business librarians. Seven interviews were conducted with career services professionals. In five instances, only one person from the institution was interviewed. For one institution, two career service professionals were interviewed separately at the request of the first career services staff member.

All interviews were conducted in person or by phone using an interview guide (Rubin & Rubin, 1995). Three of the business librarian interviews, two of the career services professional interviews, and three of the professor interviews were conducted in person. The remaining interviews were conducted by telephone because of the geographic location. Therefore, any “non-discursive” (Van den Berg, 2005) elements of the interviews such as gestures made by respondents that may have enhanced the quality of the data collected went undetected and this secondary element of observation (Padgett, 1998; Rubin & Rubin, 2012) was not possible.

A semi-structured protocol for interviewing was followed in both the telephone and face-to-face interviews with a guide used as an anchor for the “conversational partnership” (Rubin & Rubin, 1995). The interviews were digitally recorded and processed by a transcription service. The interviews ranged in length from seven minutes with a career services professional to 85 minutes with a professor. In general, the interviews with the professors were the longest and with the career service professionals, the shortest. For details on the interview lengths, see Table 3.4. For copies of the interview guide used with each category of respondent, see Appendix B.
### Table 3.4

**Six Cases Length of Interviews**

<table>
<thead>
<tr>
<th></th>
<th>MBA1</th>
<th>MBA2</th>
<th>MBA3</th>
<th>MBA4</th>
<th>MBA5</th>
<th>MBA6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professor</strong></td>
<td>N/A</td>
<td>63:08 min.</td>
<td>47:53 min.</td>
<td>30:53 min.</td>
<td>85:36 min.</td>
<td>51:00 min.</td>
</tr>
<tr>
<td><strong>Career Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional(s)</td>
<td>24:04 min.</td>
<td>20:05 min.</td>
<td>7:25 min.</td>
<td>14:49 min.</td>
<td>14:34 min.</td>
<td>13:11 min.</td>
</tr>
<tr>
<td>**Business Librarian(s)</td>
<td>25:12 min.</td>
<td>38:02 min.</td>
<td>28:02 min.</td>
<td>24:57 min.</td>
<td>48:25 min.</td>
<td>37:29 min.</td>
</tr>
</tbody>
</table>

### 3.3 Procedures

Qualitative and mixed method techniques (Creswell, 2007; Miles, Huberman, & Saldana, 2014; Yin, 2014) were used in reviewing and analyzing the online survey responses, website content, and the interview transcripts to determine general themes and commonalities. The data were also used to inform a preliminary social network analysis (Carolan, 2014) that would examine how the identified roles interacted and worked together. To facilitate greater in-depth analysis, the entire interview transcripts were loaded into the computer assisted qualitative data analysis *Atlas.ti* software for coding. Codes were established with the procedures of Miles, Huberman, and Saldana (2014).

This coding was checked for inter-coder reliability with the following protocol. Instructions as well as two sample transcripts and the codes to be checked were created. This material was then distributed to three external coders who coded the two sample transcripts. The transcripts they coded were then checked and revealed that the majority of codes from these reviewers were in agreement with the original coding. However, a revision was made to include an appreciation of positive as well as negative valence. This was to remedy the fact that a code existed to identify the challenges in communications between various roles or areas in the organization but there had not been one for examples in which the communications were
working well. The reviewers also suggested that codes be added to identify discussions of the culture of the business school and participant background details.

Following the analytic procedures recommended by Yin (2014), summaries of program and experiential FBL curricular attributes were compiled for each of the cases, as shown in Appendix C. Data from the programs were also reviewed by listening to the audio transcript for each interview and taking notes. After all coding was completed and revised, a second review was conducted to cluster codes for general themes for analysis and to identify quotes that would support evidence in this data. Appendix D provides a listing of these codes and the number of times the codes matched text in the transcripts. After a preliminary draft of this dissertation was completed in October 2016, all interviewees were contacted with the quotes to be included from their interviews. This was done to check for accuracy and to serve as a form of member checking (Padgett, 1998, p. 100-101). The communication requested that they respond if they wished for any of the information from their interview to be adjusted. Of the 18 respondents, three requested slight adjustments in their quotes. These adjustments had no impact on the original meaning conveyed in their interviews.
Chapter 4  

Results  

Detailed quantitative and qualitative analyses of the online survey and interview data were performed to answer the questions that guided this research. Chapter 4 presents the findings that answer research questions 1, 2 and 3; Chapter 5 addresses research question 4. This chapter begins with a review of school characteristics, which provides context for the institutional environment in which FBL courses are offered.

Table 4.1 presents selected characteristics of the top 20 full-time MBA programs. The number of students in the programs ranged from 384 to 1867 full-time MBA students; two-thirds of these institutions were private and one-third of the institutions were public (U.S. News & World Report, 2016). In six of the 14 private institutions and four of the six public institutions, FBL was required (Cullen, 2015). Of the ten larger programs (with 798 to 1867 students), only three programs required FBL.

Table 4.1

Characteristics of the Top 20 US Full-time MBA Programs

<table>
<thead>
<tr>
<th>FBL Required?</th>
<th># of MBAs (US News)</th>
<th>Public/Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>1867</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>1711</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>1270</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>1181</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>1047</td>
<td>private</td>
</tr>
<tr>
<td>y</td>
<td>886</td>
<td>public</td>
</tr>
<tr>
<td>y</td>
<td>876</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>825</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>812</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>798</td>
<td>private</td>
</tr>
<tr>
<td>n</td>
<td>708</td>
<td>public</td>
</tr>
<tr>
<td>n</td>
<td>633</td>
<td>public</td>
</tr>
<tr>
<td>n</td>
<td>625</td>
<td>private</td>
</tr>
<tr>
<td>y</td>
<td>585</td>
<td>private</td>
</tr>
<tr>
<td>y</td>
<td>562</td>
<td>public</td>
</tr>
</tbody>
</table>
A standard bundle of required courses is included in most accredited MBA programs. According to Rynes and Bartunek (2013), “….more than 80 percent of both U.S. and non-U.S. programs require seven courses: marketing, finance, strategy, management or organizational behavior, financial accounting, operations, and managerial accounting” (p. 182). The top 20 programs included in this study followed this tradition. The required courses at some schools encompass the entire first year and in others, just the first semester. After completing these core requirements, students may take elective courses that are more aligned with their specific goals. In the summer between the first and second year of the programs, students will typically complete an internship with a company or organization. According to an overview from Feldman (2013) on MBA student engagement, students who have a successful experience in the internship are more likely to receive a job offer at that organization after graduation. Co-curricular activities such as business planning and case competitions, club activities, voluntary consulting projects, community service opportunities, global trips, and other activities are also a very important component of the student experience in these programs, Rynes and Bartunek (2013) said.

4.1 Characteristics of Field-based Learning (FBL) courses

Research Question 1: What approaches to experiential field-based learning are used by the top 20 U.S. MBA programs?

This section reviews the characteristics of FBL courses in the top 20 full-time MBA programs. This includes an overview of the characteristics of FBL courses in these programs, as well as a review of the history and origins of these courses at the six institutions that were
examined as case studies in this research. This section concludes with a review of the programs
among those cases in which a FBL course was required, when it was only an elective course, and
whether any commonalities were apparent among programs that made each of these choices.

**4.1.1 Characteristics of FBL Curriculum at the Top 20 Full-time MBA Programs**

A preliminary review in 2015 of the websites of the top 20 US MBA programs found that
all cited experiential learning opportunities that included field-based learning (FBL) projects
(Cullen, 2015). In ten of the 20 full-time MBA programs, FBL course work was part of the
required curriculum. Schools also often offer these experiences as not-for-credit, informal
learning activities such as clubs. Some current, for-credit, field-based courses emerged from
such initial informal initiatives. These not-for-credit field projects were beyond the scope of this
research which focused on how support was provided for projects that were included in the
formal management curriculum (Caza & Brower, 2015).

General characteristics of these FBL projects included teams of four to seven students
who typically work on projects sponsored by an organization with a business-oriented,
ambiguous problem. A faculty member advises each team, which also receives advice from
individuals at the sponsoring institution. The work is typically graded. Project deliverables can
include recommendations on how to address the problem, which are usually presented as a report
or presentation to the sponsoring organization, but may also be presented to the advising faculty
member who grades the team’s work. The projects are sometimes conceptualized as
competitions in which external reviewers vote for the winning project team. Winning a
competition is not included in the project grading, which is done by the advising faculty member.

3 MBA Programs that listed experiential field-based learning projects as required course work at their websites: Carnegie Mellon
University (Tepper), Cornell University (Johnson), Dartmouth College (Tuck), Duke University (Fuqua), Emory University
(Goizueta), Harvard Business School, University of California—Berkeley (Haas), University of California—Los Angeles
(Anderson), University of Michigan—Ann Arbor (Ross), University of North Carolina—Chapel Hill (Kenan-Flagler), and
University of Texas-Austin (McCombs).
Methods vary at different schools on the assignment of projects to student teams. Students sometimes bid or vote for projects; teams find their own projects; or teams are assigned to projects by a field study office that pairs them with entities that have expressed interest in doing a project. The length of work on these projects ranges from one week to six months, although the length is typically a full semester of three to four months. The businesses and organizations with which students work are usually called "clients" -- this mirrors the term used in real consulting engagements. However, this review found that the terms "partner" or "sponsoring organization" were used as well. Some MBA programs charge the sponsoring organizations a fee for the student work. At other schools, the programs provide reimbursement for incidental student expenses. In some cases, small grants are also available to cover expenses, particularly for students who are working with nonprofit organizations. Most sponsoring organizations require the students to sign some form of a non-disclosure agreement.

One advantage of FBL was the opportunity it gave the students to actually implement what they had learned in a real company or organization.

The implementation piece is critical. I mean that’s what they’re going to do in business, right? … This is one of the few times where they have to take full ownership; they don’t get a lot of hand holding. They’ll get support from the school, but the company doesn’t do a lot of hand holding. The company gives them a project and says, ‘Figure it out.’ So they’re really having to apply what they’ve learned. (MBA2 Career2)

The opportunity to implement what the MBAs had learned in their previous courses offered a unique sort of “flipped classroom” experience. As one professor said, [If] “….you want to deconstruct just what is action-based learning and then you’ll find that a flipped classroom may be closer to that than a chalk and talk lecture based class” (MBA5 Professor). A basic definition of a "flipped" (or inverted) classroom is offered by Lage, Platt, and Treglia (2000) who said that “….inverting the classroom means that events that have traditionally taken
place inside the classroom now take place outside the classroom and vice versa” (p.32).

Chuang, Weng, and Chen (2016) agreed that “….a flipped classroom is a pedagogical model in which the typical lecture and homework elements of a course are reversed” (p. 9). In this model, students process their own course content through readings, videos, or assignments and then use class time to discuss issues or to complete exercises with that material. With FBL courses, the “live” content was rarely in the classroom; instead, the student worked with actual clients and referenced what they had learned in their previous coursework. This flipped structure helped students obtain useful practice in real business work before they graduated. One respondent said, “….The honeymoon period for someone starting in a job is getting shorter and shorter and so it’s important for a new MBA grad to hit the ground running pretty quickly. And so the more practice they get while they’re in the program the better it is for them.” (MBA3 Career)

Despite some evidence of the effectiveness of this form of learning, there were detractors. As one respondent mentioned, at his school “not everyone is a big fan” (MBA5 Librarian). In some of the programs, FBL projects were removed from the core curriculum in response to negative feedback. One respondent shared that the leadership in his program once challenged him on its relevancy, saying that computer simulations could achieve the same objectives;

I remember two deans back, I was in this conversation, and the dean was saying, “you know [FBL course name], in five years is going to be gone,” because we’re going to have these computer simulations…and so forth, and we don’t need this project-based stuff”. …it’s turned out that he was wrong. These sort of computer-based simulations are good, but they can’t teach the same things as field classes can. Businesses want to see that students can apply these tools. They don’t want someone whose classroom smart, and then can’t apply the tools. (MBA6 Professor)

Not all programs provided FBL experiences in the same way. There were commonalities of a focus on practice and the “flipped classroom” approach, but there were variations as well. Some programs included experiential field-based learning projects that did not have clients or
sponsoring organizations. Instead, the student team created a new business, product, or service. In these projects, the focus shifted exclusively to determining market needs and product or service viability. Potential customers rather than an actual client became the focus. There were also instances in which actual consulting firms like Deloitte and A.T. Kearney were involved in student instruction, and organizing the field engagement and student work with clients from that firm. At Carnegie Mellon University, for example, A.T. Kearney offered “projects for student teams to tackle over a 12-week period” (Poets & Quants, 2015). Sometimes, the work on these projects was connected with a capstone experience and some schools had “laboratories” that facilitated these projects. For example, at the MIT Sloan School of Management “…students work in interdisciplinary teams and immersive, experiential exercises are administered through Action Labs” (Somers et al., 2014, p. 54).

In MBA programs in which experiential field projects are required as part of the formal management curriculum, programs gave them different names such as: “Applied Management Research (AMR)” [UCLA], “Applied Innovation Course” [Haas UC Berkeley], “FIELD” [HBS], “First-Year Project course (FYP)” [Tuck Dartmouth], “Fuqua Client Consulting Practicum” [Duke], “MBA+ Micro-Consulting Projects” [McCombs U Texas], “Management Practice (MP)” [Goizueta Emory], “Multidisciplinary Action Projects (MAP)” [Ross U Michigan] and “Student Teams Achieving Results (STAR)” [Kenan-Flagler UNC]. At Columbia University’s business school, the elective FBL classes were entitled “master classes” that were only offered to full-time MBAs in their second year in the program. The school’s website stated that “…each Master Class focuses on a specific industry context such as consulting, real estate, or entrepreneurship and draws significant input from the professional community via interaction
with student team projects and project sponsors, guest speakers, adjunct faculty members, and alumni participation” (Columbia Business School, 2015).

Global experiences and foreign travel were included within FBL projects at a number of schools. One FBL course partners with students from an MBA program outside of the U.S. This program was managed by the school’s marketing department and taught by faculty who were primarily adjunct professors. In another global FBL project, one respondent discussed taking video footage that was used in the classroom to support FBL: “I actually went with a team to Tanzania, Dar es Salaam, as a consultant in the field with a hotel entrepreneur in Dar es Salaam. And so from that 16 hours of footage, I put together a learning based kind of documentary, if you will, for them to use in the classroom” (MBA1 Career). All programs investigated in depth as case studies also offered an independent study component that could include an FBL type project in which a student identified and worked on a real business situation. Some of these projects were also outside of the United States. Independent study project courses are a standard offering for most business schools (GMAC, 2013).

4.1.2 FBL Courses at the Six Case Study Institutions

A number of the six programs used as case studies acknowledged that the implementation of FBL courses at their school was associated with revisions of their overall curriculum. From the literature (Mintzberg, 2004; Thomas et al., 2013), such revisions appear to be done by business schools periodically and particularly after significant events such as the 2008 recession. The dynamic tends to be either moving to more required courses, or moving in the other direction of more flexibility. As one librarian commented, “[A few years ago]….the MBA curriculum was modified here…to be more flexible…they had gotten feedback from students
that they weren’t able to – there was too much in the way of the core and they didn’t have enough ability to explore certain of their interest areas” (MBA6 Librarian).

All six schools offered primarily face-to-face instruction at their institution. A number of the respondents identified this feature as an added value of their program. Said one professor, “[The dean] feels strongly that MBA programs are under great threat and among other things, from online courses and all of that stuff and that one of the unique features we have at [business school name] is …the face to face stuff, including the experiential stuff” (MBA2 Professor).

Three of the six case study programs viewed their schools as defined by their experiential field-based learning (FBL) programs in different ways. One program noted that FBL was a big attraction for those who wanted to apply to their program (MBA5 Librarian). Another school saw a real advantage in being located in a major American city and that because of that “we can bring all these companies and executives into the classroom” (MBA1 Librarian). In one interview, their school’s legacy with FBL promoted their part in a broader endeavor that tapped into this expertise as part of a university wide entrepreneurial network (MBA2 Librarians).

Respondents also mentioned that the increasing popularity of FBL lead to the exploration of new course format options that would add more FBL project experiences to the curriculum. One professor said, “….I think it’s getting bigger and bigger, so, you know, we’re on this new innovation thing now, so, at [business school name], we’re trying stuff, they only have one class for a whole week, but they only go to this one class, so out in San Francisco, they spend a week [or] going down to Mexico, looking at all these different factories” (MBA6 Professor).

4.1.3 History of FBL Project Courses at the Six Case Study Institutions

This study found that the structure of an FBL course could be influenced by the past challenges and successes of this pedagogy at its school, and the leadership who designed the
learning in terms of the faculty member’s quantitative or qualitative perspective on research and consulting experience. One of the faculty members shared that “…because I’m a quantitative guy, I’m always pushing them for some quantitative modeling, because I think quantitative modeling in the business world…is more acceptable, and plus if you understand it, and you have clear logic, you can defend your results better” (MBA6 Professor).

Four of the five faculty interviewed led their respective FBL project courses and their reason for taking on this leadership role varied. One respondent participated in the launch of the experiential FBL course at his school in the 1990s because no one else wanted to do it. He said, “….No one really wanted it, and so, the strategy group decided to take it on, because there was a—it was in the core, so it was a required class. So we took it on, that’s how I basically got involved in it” (MBA6 Professor). At another program where they had offered some form of FBL courses since the 1970s, changing faculty leadership over the years affected the type of content and design of its FBL course. A career services professional who was also an alumnus of the program shared that the course had changed when it had a new faculty leader. He said, “….When I was a student 10 years ago and I did an experiential field-based project, the advisor was a professor who was an expert in his academic field, but not necessarily on how to run a consulting project. I think now if you look at the team of advisors, both internal and external to [business school name], invariably these are people who have worked professionally as consultants and who can really help teach the students on how to do this job” (MBA2 Career1).

Two of the case institutions had launched FBL in their school’s required curriculum over 40 years ago. One of these program respondents stated that “…they credit themselves with being the first school in the nation to do this back in the ’60s” (MBA4 Librarian). The data did not provide extensive details but in general, particularly with programs that had a longer history,
there was evidence that the curriculum had shifted in response to changes in leadership over time.

One faculty lead said that when the dean asked him to take over the FBL course seven years ago:

I had no background and no interest...[but] after saying no three times, I ended up running the program” (MBA2 Professor). One concern was that he felt the faculty team running the course were all academics and did not have much practical business experience. “The faculty team was extremely ineffective and one of my conditions of agreeing … was the dean said I could get rid of them all and I did. So I chose my own [faculty] teams and …none of them are tenured faculty other than me…They’re mostly [just] very experienced people. (MBA2 Professor)

Another change he implemented was adding more structure to the course because when he took it over, he found that “….the course had no learning objectives. There was no course. It was …pick a project, go out and do the project, if you have any troubles come talk to me and that’s it” (MBA2 Professor). This issue of the faculty lead playing a crucial role in the success of the FBL course was articulated in all the interviews, as one professor said,

When [the FBL course]…was initially launched there were no resources. It was just supposed to magically happen. And the commitment to an associate deanship [to lead the program] but also to raise the level of funds that the projects themselves bring into the school and to deploy them back into support resources for quality control, to not only continue the pipeline of good quality projects and clients but also to continue the pipeline and improve the consistency of high quality deliverables and high quality educational experience. (MBA3 Professor)

This idea of “cleaning the slate” and rethinking the program and what to do to effectively deploy it emerged in other interviews as well. Two of the programs started an FBL course in the 1990s as part of new curriculum initiatives at their respective schools (MBA5, MBA6). MBA3 was launched in 2009 under similar circumstances. The respondents from MBA5 and MBA6 had participated in them from the beginning. The professor from MBA5 discussed how the form of the program had shifted over the years. He commented, “….In the beginning, an
interdisciplinary team of five faculty members worked with 20 student teams. These days, a smaller group works with eight” (MBA5 Professor). This professor attributed continual adjustments and his school’s dedication to reflect and actively learn from past experiences in their deployment of FBL courses to their success. He said, “….We are forever looking at our pedagogy and trying to improve it. Making all kinds of changes over the years” (MBA5 Professor). Another interviewee said their program had a similar approach in describing their FBL courses as “….an evolutionary process, very incremental, and a lot of experimental things. Try a lot of things, do quick learning, you’ve got another cycle coming up next semester, integrate, try new thing. So I think that we’ve gotten some very good progress in this despite enormous odds” (MBA3 Professor).

In describing the history of his school’s FBL curriculum, the professor from MBA6 also recounted that many changes had taken place over the years including switching it from a required to an elective course, which was done in response to student feedback and capacity constraints. The faculty member commented that having to “….find over 100 projects a semester. There were just too many projects. So, they decided to take it out of the core” (MBA6 Professor). In terms of student feedback, one particular negative issue about this program was that students who had previously worked in consulting felt they did not learn anything in this course:

So, it’s in the core for… maybe about five years… everyone had to take it, 750 students. Usually, in the core classes, you could waive either by credentials, take a test; or by your past experience… Unfortunately, we couldn’t waive people based on any of those…There were students who didn’t think that they should have to take it, because they had been consultants, and so forth. But, again, there was no formal mechanism to say ‘OK, fine, you waive.’ (MBA6 Professor).

As an elective, however, this professor added that this course has become very popular. He said, “….[It has] just kept growing and growing and growing. Now, I believe we’re the
biggest elective at [business school name], or, if not the biggest, we’re one of the biggest” (MBA6 Professor). In another program (MBA1), the FBL course had evolved from being a required to an elective course because of negative student feedback. The librarian recalled that, “….The students complained and …they just abandoned it...They were always going to replace it with something but they never did. It just went away” (MBA1 Librarian). This respondent then added that this change coincided with the arrival of a new dean for the school. Table 4.2 provides a listing of the years these various programs have included FBL and whether these courses were required or an elective.

Table 4.2

<table>
<thead>
<tr>
<th>Program</th>
<th>Years in existence</th>
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<tbody>
<tr>
<td>MBA1</td>
<td>Stopped being a required course in 2004. Now it is just an elective.</td>
</tr>
<tr>
<td>MBA2</td>
<td>Has had some form of FBL project requirement for over 40 years.</td>
</tr>
<tr>
<td>MBA3</td>
<td>Started as a required course in 2009.</td>
</tr>
<tr>
<td>MBA4</td>
<td>Has had some form of FBL project requirement since the late 1960s.</td>
</tr>
<tr>
<td>MBA6</td>
<td>Started in the 1990s as a required course and in the late 1990s switched to just being an elective course.</td>
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In MBA3’s program, they began offering a required FBL course as part of the revision of their full-time MBA curriculum in 2009. The inclusion of this course work was in response to a demand from faculty, recruiters, and employers from internships that “….students just didn’t have as much rigor in terms of dealing with analytics, nor were they as comfortable in talking through situations that were very ambiguous and open-ended” (MBA3 Librarian). Over time, the FBL course content in this program had evolved to two FBL-type courses, one in the fall and another in the spring semester. For the spring course option, students chose from among five FBL elective courses. Similar to other programs, the lead professor at this program indicated that adjustments were needed, particularly in this spring semester FBL course component. He
said that initially there was very little coordination between these courses, but over time they had become more aligned:

There was absolutely no coordination or communication across those courses nor was there any explicit tie-in made from any kind of core [FBL] course. It was a bunch of separate islands of work. And what we’ve done first is to try to at least create a foundation of skills and ideas in the core courses that could be used by the field-based courses and then taking a number of courses that had been designated [FBL course name] electives, try to develop the faculty members in those areas, still as islands, but to reflect and harmonize with a common set of themes and processes. .. And to try to start to build a little more consistency on …what would be deemed an appropriate type of a field project so that at least these islands looked a little bit more like one another. (MBA3 Professor)

The faculty members conveyed in their interviews a devoted dedication to this unconventional approach to education. As one professor said, “….There is a group of faculty that care deeply about this that are trying their best to learn as much as they can and share it with each other and then share that more informally with their colleagues when they get involved in this stuff” (MBA5 Professor). Another interviewee phrased it simply as, “I’m a massive supporter of this type of learning” (MBA4 Professor). This passion and inventive thinking made them very entrepreneurial in their approach to FBL. This was articulated by one respondent who felt that because of the learning objectives of his school, there was no model so he was “….starting from scratch.” In this program, he had taken over leadership of FBL in 2012, several years after it had launched as part of the school’s revised curriculum in 2009. He said:

We had no model out there to work from. We didn’t have other places to look at and say we need to do what they’re doing because we didn’t really see anything out there that really was doing things quite the way we wanted to do it. We also were a work in progress because we had already launched [FBL course name] so there was an aspect of rebuilding an aircraft that was already in flight. And enormous resource constraints. Bandwidth constraints on the students because of the number of courses that they have to simultaneously do. The imperative to make this program a self-funding kind of a program. A lot of status quo to be shaken up. The fact that it’s very unconventional. So it’s a real work in progress. (MBA3 Professor)
4.1.4 Programs in which FBL was a Core Required Course

In four of the six programs examined as case studies, FBL was a core course in their school’s full-time MBA curriculum. All these programs offered these courses in different ways. One program had a core FBL course as well as global elective FBL courses, as described by one student:

So there’s a [FBL Course name] project which is the core class. It’s kind of the capstone class of the first year and this is a consulting project for a real client who has a real need. Teams come together and then are assigned a faculty advisor and then work on this in the spring term with the final presentation being the last thing they do before they leave for the summer… The other part of this is then on site global consulting which is a second year elective that they can sign up for. This is usually where companies pay to have a student team come and do consulting work for them. There’s no cost to the student even though they might be flying somewhere else in the world and there usually are three or four weeks phase one, which is mostly secondary research on campus, and then there’s a three week in country piece of consulting which will be done at the client site usually. (MBA2 Career1)

Table 4.3 shows the lengths of the FBL courses in the various programs, which varied from two months of complete immersion with no other classes to a series of two courses that extended through the whole first year of the program.

Table 4.3

<table>
<thead>
<tr>
<th>Program</th>
<th>FBL Project Length and Time of Year</th>
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<tbody>
<tr>
<td>MBA1</td>
<td>Elective – spring or fall semester in second year</td>
</tr>
<tr>
<td>MBA2</td>
<td>2 months – March-April of first year – in concurrence with other courses</td>
</tr>
<tr>
<td>MBA3</td>
<td>Encompasses courses in fall and spring of first year</td>
</tr>
<tr>
<td>MBA4</td>
<td>6 months in second year – fall or spring</td>
</tr>
<tr>
<td>MBA5</td>
<td>2 months in first year – spring (students only do this during this time)</td>
</tr>
<tr>
<td>MBA6</td>
<td>Elective - Spring or fall semester, first or second year</td>
</tr>
</tbody>
</table>

Three of these four programs also had business programs at their school other than the full-time MBA program, such as their evening, executive MBA, and undergraduate business programs. The FBL project courses were being phased into the required courses at these programs. At one school, “….the business school has a curriculum called [FBL course name]
and this currently is a required component of the curriculum for the one year and the two year full-time MBAs and the evening MBAs” (MBA3 Librarian). In another program (MBA5), the FBL course had expanded “….to the executive MBA, part time MBA, global MBA, weekend MBA, and it’s actually expanding to the undergraduate curriculum as well, but not in the formal sense… It’s a required core class for all the groups except the part time MBAs, so everyone goes through it” (MBA5 Librarian).

As a required course, FBL was placed in the first year of three of the programs, although in one “….they’re doing this project in their second year of their two year program" (MBA4 Professor). At this program “….all students are required to do this or a business plan development project in order to graduate with their experiential learning process framed as if it’s a consulting project” (MBA4 Career).

4.1.5 Programs where FBL was only an Elective Course

In two programs, FBL was only an elective course. In one program (MBA6), where they had a fairly small healthcare management program major, students “are required to do field activity projects… It’s not an option” (MBA6 Career). An FBL course was not required for all the other MBA students in this program. Despite there not being a required class at MBA1 and MBA6, the interviews clearly indicated that there was a demand and increasing focus on FBL at their schools. As one interviewee reported, “….In November or December there’s always an end of the semester faculty report and everybody goes. So there are three or four professors that give their findings from these [FBL] classes. Because everything is now geared towards these -- I mean the heat is on for these classes” (MBA1 Career). A respondent in the other program indicated the same. “….I do think that there has been more of an emphasis in the last probably three to five years in having people participate in one of these experiences” (MBA6 Librarian).
Both programs indicated that most MBAs chose to take these classes in their second year. One respondent indicated that the reason for this was “….because the whole first year is pretty much packaged. So it’s really the second year when they’re doing their electives and the [FBL] classes” (MBA1 Librarian). This respondent stated that at her school “….often they’re entrepreneurship type courses… They have a few others …most always financed based. But mostly entrepreneurship I think is the big area” (MBA1 Librarian). She said that at her school, there were fewer FBL elective courses than in the past. She believed this was because they required so much of a time commitment from faculty. While most students chose to take these courses in the second year, the professor at MBA6 indicated that his course could be taken in a student's first semester before any core classes had been completed. This reflected the powerful influence of the faculty member on its structure and requirements. Unlike the other faculty, this professor was not concerned that not having taken any courses in the core curriculum would constrain MBA students’ ability to apply the necessary skills for these projects.

They can either pick up the tool that we’re using [themselves], or they can just pick them up from other students … I’m pretty flexible. I mean, as long as I don’t get stopped by the administration, I don’t really care, right? I don’t believe that you have to take a class to do well in this class. I mean -- [they can learn from their peers]... Or, I’ll just send them right to [name of professor] about branding, and in 45 minutes, [professor’s name] can tell them the basics of, you know, branding, and so forth. It’s much more efficient, in terms of them learning, I can tell you that much. (MBA6 Professor)

The appeal of these courses was characterized by this professor when he stated that at his school, his FBL course was popular because "….it’s the only class where there’s no classroom learning. So, they’re [students] interested in, sort of, applying these techniques" (MBA6 Professor). In both schools, the respondents discussed the application process for these FBL elective courses. Students could not just sign up. At MBA1, depending on the elective, there were different application procedures and unlike MBA6, certain classes were a prerequisite for
consideration: “Some of them had to write out an essay beforehand why you want to be in it. You need to have a certain grade level. You need to have taken certain classes before. So they were sort of for the elite more than just -- they weren’t just for everybody” (MBA1 Librarian).

4.1.6 Summary of Research Question 1

In reviewing the different forms of FBL courses at the top 20 full-time MBA programs, there were many fans of this form of pedagogy, but this sentiment was not universal. Schools differed in the administration of these courses, with non-faculty staff often playing different roles in their governance. Many programs were led by faculty who played a decisive role in their structure and content. There were similarities and differences at the schools about the requirement for FBL courses. Some started and continued with a required FBL course, while others changed to elective courses. In one institution, their program initiated a required FBL course in 2009. As shown in Table 4.1, more of the smaller MBA programs had FBL courses in their required core curriculum. The entrepreneurial character of those leading and involved with these courses and their willingness to continually be open to revising and trying out new approaches with these courses was apparent.

4.2 Organizational Structure of Field-based Learning (FBL)

Research Question 2: What organizational structures are associated with the different types of experiential field-based project learning offered at these different programs?

This section reviews the data collected on the organizational structure of the experiential field-based learning (FBL) project courses at the six case study institutions. Organizationally, responsibilities fell within two areas: 1) administration of logistical aspects of FBL and 2) curriculum design. This section describes these two perspectives and reveals that different types of expertise and organizational leadership were required.
4.2.1 Administration of Logistical Aspects of FBL

This study identified variations not only in the pedagogical design of these courses, but also in their logistical administration through such activities as locating projects, matching teams with projects, managing auxiliary financial and contractual obligations that could come with securing projects, and securing flights and other travel arrangements for student teams working in another location. These administrative requirements could be quite extensive and complex, and they varied among the six programs. In one program, there was a managing director of an office responsible for coordinating all the school’s FBL courses; this person had assistance from various roles. As a professor stated, "….She’s the business managing director if you will of the whole thing, but in terms of … pedagogy and what we’re doing she’s been doing this long enough that she knows that that’s [most] often sitting in faculty hands… [This] managing director of [FBL course name] has her own staff and she’s a full-on professional …she’s reporting to the MBA associate dean who’s reporting to the dean” (MBA5 Professor). There was a faculty director at his school for FBL who reported to the dean.

Of the faculty interviewed for this study, the professor at MBA5 was the only one who was not the lead faculty member for the FBL course design at his school. He depicted the administrative managing director and faculty director as having distinct roles but working very closely together. As he pointed out, the two directors had clearly different areas of responsibility, with the managing director “and her team is responsible for making the trains run on time. With say 400 to 500 students and about 80 or 90 projects, you can imagine the complexity. We also have a faculty director…. He or she works hand in glove with our managing director to ensure the integrity of the program” (MBA5 Professor).

At MBA2, the leadership for the FBL course was also divided between a faculty and
administrative director role who, along with the program manager who worked for her, handled the logistical aspects of the course that included “55 to 60 projects a year” (MBA2 Professor). The professor who was also the faculty director at this program indicated that over the years, his administrative director’s role had grown in managing the FBL course; however, similar to MBA5, he felt that the pedagogical design role for the course needed to remain with him as faculty director. “….Where I feel like I sort of earn my keep is when we’re talking about course design. And that’s where I think I have some, some knowledge, a lot of experience and just a feeling that that’s my profession and administrators don’t, understandably” (MBA2 Professor).

This interviewee mentioned that for the two experiential FBL elective courses at his school that were offered to MBA students in their second year, there were just administrative directors in leadership and course design roles. He said, "….There’s no faculty director, in those other two courses there’s [just] an administrative director who is not a tenure-track nor a PhD person” (MBA2 Professor). These administrative directors were leading teams that had faculty members as advisors on the team level. And faculty, in that context, also with very few exceptions, means adjuncts, non-PhDs, non-researchers” (MBA2 Professor).

In some programs, the course design and administration were combined in one role. In MBA3, where the associate dean for this school’s FBL curriculum served in this capacity, he discussed the broad range in his responsibilities from course design and teaching the full-time and evening MBA FBL courses to identifying projects and directing the strategy for how this sort of learning fit with the school’s curriculum overall and broader objectives:

As the director in effect of this program… really trying to help the school think strategically about what the programs mean, what their mission is, what the objectives are, and thinking about a good operating model. Thinking about what resources would be required, thinking about pedagogy, thinking about everything that would be required to create and effectively run the program as well as the economic model. So … I think the contract for the position said a very broad portfolio to be able to develop and lead [the]
program. (MBA3 Professor)

In some programs, this faculty member lead reported directly to the dean’s office. The professor said,

When I took it [FBL course name] over I started reporting to the deans, in the sense that I would write, create a presentation every year and in the summer, organize a meeting and make a presentation to the deans. I did that not because they asked me to but because I thought it was in our interest for them to know what the heck we were doing” (MBA2 Professor). At MBA3, the associate dean heading FBL reported to the vice dean who reported to the dean. “….Because it’s a programmatic role that spans multiple [MBA] programs so it does report to the vice dean” (MBA3 Professor). At MBA4, the faculty lead reported to “the academic dean for all the field studies programs at [business school name]. (MBA4 Professor)

In this program, there were four experiential FBL course options. The applied management field study course was the primary course MBAs took to fulfill this course requirement. One professor said,

So there’s a full-time, fully employed field studies program, there’s a global field studies program, there’s an applied management research field studies program which I think is the biggest...And then there’s a business creation option field studies project course. So all of them, the heads of each of those programs basically fall under the academic dean for field studies programs at [university name]...That person reports to the academic dean for [business school name]...there’s an academic dean and then there’s a sort of a, I guess for lack of a better word, a non-academic dean. And so it’s the academic dean that that person reports to. (MBA4 Professor)

In describing these organizational dynamics, the respondent in one interview felt it was important to emphasize the sense of teamwork and collegial good will among all involved at his institution regardless of being administrative staff or faculty. “…So there’s a reporting relationship that to me it feels very much like a team… We’re just all doing this together. There never is a sense of I’ve got to get back to you on this, I need to talk to Bob or I need to talk to Betty to see if I can do this” (MBA5 Professor). This was not the case at all other programs where the administration appeared to be more fractured.
At MBA6, similar to MBA2, the two FBL project courses had different administrative structures. One course, in place for many years, had a very lean administrative structure of just one faculty director and one administrator. This school had an elective global marketing-oriented FBL course that fewer students took but which had a bigger administrative infrastructure. The librarian said,

We also have something called the “global consulting practicum” [GCP] which is in the marketing department and that is something where students actually also work with students from other institutions… in the world…, on a project as well -- a client project. And this has kind of a larger maybe supporting structure around it… there’s a kind of a faculty oversight person for the GCP as well as like more of an administrative structure than there is for the -- for the [other FBL course name]. (MBA6 Librarian)

The faculty lead at the other FBL course at MBA6 suggested that he would not want more administrative staff. He even shared that he does not want the course to grow any further in terms of number of projects so they do not have to take on extra staff:

Just, you know, [the course administrator] and I, OK. And then we have these other professors, you know, area of expertise faculty, so we know who to call when we have to. But besides that, I mean, we try to run a lean operation here. I mean we’re doing about between 30 and 35 projects a semester, so we cycle through a lot of students. But we really don’t have staff; it’s just me and her. (MBA6 Professor).

One of the programs had recently moved all administrators for their three different FBL courses in one location called the “experiential collaborative.” This change was in progress when the interviews for this dissertation were conducted. As described by one professor:

The [FBL course name] project team and the on-site [global FBL courses] team will move from their offices to a zone in [Business School Name] now where there’s a sort of a mezzanine floor and they all have their offices surrounding it, so they’re using a shared meeting space, shared coffee facilities, etc. So it’s known at the school as the collaborative. If a student is going along to meet one part of this they’ll be exposed to the marketing materials and the staff of the others. (MBA2 Professor)

Administrators, and not faculty connected with FBL courses, moved to this space, reported one MBA2 professor, “….If a professor is now acting as a faculty advisor, the professor would still
use his or her office to run those meetings. So it’s the admin staff who’ve been collocated.”

Another respondent from this school added that by having these roles physically collocated, “the students have been encouraged to see our various offerings as part of a suite of things” (MBA2 Career1).

**Locating projects.** For this type of curriculum, the respondents alluded to the importance of finding quality projects for the students as well as providing a consistent level of support for the projects. Said one respondent:

> I think it will be imperative in order for experiential learning to be successful to have sort of a core support network in place … to source quality projects, to have real time feedback, to have sort of a consistent level of quality and feedback for the students in order for the students to realize the benefits from experiential learning. And for the client as well. So, like any project, if nobody’s really watching over it, it can go off the rails. (MBA3 Career)

Finding good projects for this type of learning could be challenging. As one professor stated, “So, the trouble is, you generally have to, especially in large organizations, you have to find someone with a project at the right time. So they’ll come back, but they may not come back every year” (MBA6 Professor).

All programs had systems for identifying quality projects for their programs. One program that had done FBL projects for quite a while discussed this in detail, along with the problematic issues that needed to be addressed. At this school, there was a faculty committee that reviewed all project proposals from sponsors to determine which would be included in the final list for the student bidding process. Projects would be removed if the committee felt they were not viable because they included elements that could impede the student teams’ ability to achieve successful outcomes. The faculty members chosen to be on this committee had considerable experience supporting FBL projects at this school:

> These folks have a very good idea of what is a doable project. They review the proposals
before students get a chance to bid on them. In some cases, we go back to the sponsoring organization to refine the proposal. It cannot be too broad at the same time it cannot be too narrow. With experience, we all have a reasonable idea of the sweet spot. Of course, we have our priorities as to whether or not the students will want to work on these projects … but we do not impose our will on them. (MBA5 Professor)

After the committee finished this culling, there would be about 200 projects for which the 80 to 90 student teams could bid. One professor commented that:

The students bid on the projects that interest them. There are always some projects that go unaddressed -- and the potential sponsors know that when they submit them for consideration” (MBA5 Professor). According to one professor, the fact that the companies knew there was a 50% chance that students might not select their project served as “….an incentive to make sure they [come] up with a good project compelling to MBA students. (MBA5 Professor)

All of the schools contended with the variability of potential projects and the challenges of fitting them within the constraints of the defined course period and its learning objectives.

Said one professor, “….We try to choose projects that have …fairly unstructured questions that the students and the student teams need to structure” (MBA3 Professor). In one school, a project that went beyond the proscribed course time was then continued over several semesters so that different teams could work on it to accommodate the sponsor’s needs:

Sometimes, we have projects which we can’t finish in one semester, and so, we’ll just carry on the project for a full year, or even two years. So, we’re doing a marketing ROI model for some mutual fund companies, and that’s been taking us a long time, because we had to come up with the design, and then we had to implement it, and [are] now piloting it. So, we have these long-term projects. (MBA6 Professor)

One respondent mentioned that because their school did not have a database of companies, it would reach out to different departments in the school to assist with sourcing projects. This process made it more complicated to locate potential companies. This same program also shared how improvements in their curriculum had made their program more popular with potential clients and this made identifying projects easier. The professor said:

Because this program is really well received by students now and they work their tails
off. Five, 10 years ago I think it was not nearly as well received and it was harder to get clients and I expect that the deliverables weren’t nearly as good as they are now. Because now we have like a waiting list of clients that want to submit projects into this program. And given the size of it that’s a big order because we have 60 plus companies whose projects -- or 70 companies who are involved in the program and there’s probably another list of 35 or 40 that didn’t get their projects accepted. (MBA4 Professor)

The career services professionals indicated that they provide a peripheral role in finding potential sponsors for these projects through their recruiting activities that raise awareness about their school. However, these professionals did not play an active role in actually securing projects: “….We don’t force the companies or we don’t get the projects. Those are done by the academic team” (MBA6 Career). In one institution, there was a high-level leadership role that reported to the dean and who identified potential sponsors for FBL project courses. This position “….makes contacts out into the city to leverage the connections” (MBA1 Librarian).

Respondents indicated that over the years, the focus of the FBL student projects would change. As one professor recalled: “The projects change depending on where business is. So broadly when we first started doing this, it was all process redesign stuff in the ’90s, and now it’s a lot of market entry stuff projects” (MBA5 Professor). The programs shared that many projects had a marketing focus, and one professor agreed, “….the projects, of course, are all over the map, but 60 to 70% of them have a marketing flavor. They could be introducing a new product, could be going to a new geography” (MBA2 Professor). This professor felt strongly that there were some projects that were not well suited for MBA students to work on in FBL courses:

Companies aren’t stupid enough to ask us to do really important strategy formulation projects. … We’ve got smart students, we’ve got, and you know, for 28-year-olds, very experienced students. But they’re still not; they’re not a McKinsey team. So we don’t get much in the way of strategy. We don’t get very many quantitative, operational kinds of projects. Our students aren’t interested in that kind of thing. With some exceptions. So … for these various reasons, not all of which I think I understand, they tend to be sort of marketing projects. (MBA2 Professor)

A respondent from another program described examples of FBL student projects that
were marketing related:

So it might be that a company wants to consider entering a new market and so the students have to evaluate all of the costs and benefits and risks associated with venturing into a new market…It might be launching a new product so they would have to do a very detailed environmental assessment of not just the competing products that are out there and competitors, but then they’d have to look at the attributes of the product that the company is thinking of launching and market test those by collecting primary data from target customers to validate the company’s presumption that launching this new product will make sense. (MBA4 Professor)

Some programs charged fees to project sponsors for this work while others did not. One respondent defended the practice of charging fees because he felt the fees emphasized that they were “real projects”:

These are real projects. These aren’t make-believe projects. And the clients spend money with [university name] and so the clients want real results. They don’t want to see some academic study. So that’s why it’s … a very exciting and interesting program because we force on the students a level of academic rigor in terms of when they do their primary and secondary research, but they still have to meet the goal of having real impact on the client. (MBA4 Professor)

At MBA6, the program had a hybrid model and only charged clients who were not alumni of their school: “They’ll be alumni, and they’ll use [FBL course name], and we’ll waive the fees, and it’s just their way of sort of connecting back to the school. And, so, we’ll waive the fees for those alumni” (MBA6 Professor). The programs at MBA3 and MBA4 charged fees to sponsors for most project work, while the programs at MBA1, MBA2 and MB5 did not charge fees to sponsors for projects. In all programs, non-profit project sponsors were not charged a fee for the work. At one program that did not charge fees, the faculty lead said he was given a large budget to use for these projects and that in his school’s culture, there was no official budgeting oversight. However, he reported the expenses because they were incurred with outside organizations: “I sort of feel I have to be a little bit more corporate about it because it is different in these ways” (MBA2 Professor). Another school that did not charge a fee only asked that the
“sponsoring organizations cover the costs -- just the straight costs, that’s it. And in some cases, we do it for free” (MBA5 Professor).

**Project team assignments.** Fairness in the assignment of projects to student teams was a concern for the programs where projects were assigned. This could require extra administrative effort to assure that teams were suitably matched with a particular project:

We do our best to give our students the projects that they want… [In the] bidding process they will look over the available projects and pick their top 10 or so. The good news is we have operations faculty here. We have a good assignment algorithm; our success is measured by what percentage of the students received their first choice, second choice, third choice, and etcetera. We pride ourselves on the fact that the vast majority of students get their first, second or third choice. While there may be a tiny percentage that receives their sixth choice or something, we try really hard to minimize that kind of outcome. (MBA5 Professor)

Not all programs had such an elaborate selection process. At another program, the professor shared that in the "spring term, the students select a project off a list that my director creates. Maybe there are 100 potential projects in that of which about half get selected, so they select their projects and they select their own teams. There are teams of five" (MBA2 Professor). In some programs, teams could identify their own project or select from a list provide by the course: “….Students either source for themselves or choose one of the sourced projects where they and four other classmates will solve whatever business problem is put in front of them” (MBA4 Career). In some programs, student teams worked on projects outside of the United States. Thus, language ability could play a role in which projects were selected by the students:

Language provides an opportunity and a constraint. Lots of people want to work in a ‘foreign country’ (I say that recognizing that the United States is a foreign country for students from abroad). Some countries are easier for English speakers than others. In Brazil, for example, you can often get by with English – and a translator - because so many people speak English there. China, on the other hand, can be a “problem” for us. We try very hard to put at least one Chinese speaker on a team going to be in China. We know that some Chinese students are happy to go home and others are not. It all works out. (MBA5 Professor)
The extensive logistical work involved in coordinating and securing these projects was a primary focus of some FBL administrative roles. At one school, the two roles were described as organizing “….everything else that have to do with these projects. They scope the projects, they pull in the projects, they do all the administrative work to get students to figure out how to team the projects… [And] if there’s travel involved they’re the ones that coordinate the travel” (MBA2 Librarians). In describing the issues with the projects, one respondent exclaimed that “….there are all kinds of complexities as the rubber hits the road” (MBA5 Professor). He then described the myriad of issues that arise with students working on projects under this area’s purview:

Our students come from all over the world and … we send our students all over the world. They need to get their vaccines and visas under some time pressure. Beyond that, there are sometimes non-compete issues. For example, you may have a student from Ford who is going back to work for Ford. A company like General Motors or Chrysler might have an issue with a “Ford employee” in their midst. These are not big issues but they do need to be addressed. (MBA5 Professor)

In one program, the FBL course’s only faculty advisor met with all 35 teams once a week. He facilitated the course in the fall and spring semester. Overall, since each course had 180 students, the logistics could be quite complicated. There was never a time in the semester when all the students registered in this course met as a group. This professor said that for the past three years, he also had some teams in San Francisco. For this class, he conducted weekly meetings by telephone and only traveled to San Francisco for an introductory session and to observe the final project presentations at the end of the course. For this course, the sole administrator was quite involved in helping secure projects and making arrangements for all the team meetings.

This same program had devised a way to accommodate students’ as well as potential host companies’ interests in identifying their own FBL projects. Officially, in the registrar’s list, this
course would be identified separately as an independent study although the faculty member supported the students with weekly meetings in the same way as in his FBL course. This was an example of some schools’ more fluid approach to these FBL project courses:

So, Urban Outfitters uses us a lot, and … we have a lot of alumni there. And they always want to choose their own team, so we’ll have people apply. They’ll look through the resumes, they’ll choose their own team. It’s a [FBL course name], but we can’t [put] it through the [FBL course name] [registration] process, but we can accommodate them by just saying “oh, well, you’re an [independent study] under me.” But, you know, it’s basically the same thing [course]. (MBA6 Professor)

4.2.2 Curriculum Design

All the programs indicated that they were still finding their way in terms of the best way to organize and design curriculum in these FBL programs. They presented the FBL curriculum as something their schools were continually refining. These shifting dynamics were evident, even in programs where this type of course had been established as a required and key part of the curriculum:

So redefining [FBL course name] and figuring out the role of classroom and field as an integrated model … And then thinking also about coordination, recognizing that this was a program and that classroom and field, and across all the school, needed to be working together. That’s another contribution. We started moving down the road at least, haven’t gotten there yet, but I think we got basic agreement also on the issue of resources. (MBA3 Professor)

Faculty leadership. In all programs, the faculty lead was primarily in charge of curriculum design of their required FBL project courses. In some schools, this position was responsible for oversight of other areas, which resulted in capacity strain:

So part of my role, aside from being the academic director, is on a number of the topics, client management, scope management and [overseeing] projects… I’m over everything, and this term I’m not advising teams, but the last two years I was advising multiple teams [too]… I serve on a number of boards as well and so because of the additional oversight responsibilities of being the overall academic faculty director for this program I didn’t want to add to that also of advising teams… It’s just too much stuff. (MBA4 Professor)
At two programs, the faculty spoke of how they alone, as tenured or tenure-track faculty, have the expertise best suited for designing the curriculum of the FBL course:

I feel that I am uniquely responsible for the pedagogical design. I would not defer or not let anyone else -- that doesn’t mean I don’t listen to people, but I just mean the responsibility is mine. And I suppose leadership, too. Yeah, I’m definitely the spokesperson for the [course]-- but that’s because being here 30 years I’m tenured, I’m a faculty member...I carry a different weight ... if the dean wanted someone to talk about this course to the MBA Advisory Board, he would not choose my administrative director, just would never, ever do that. He would choose me. For all the reasons I cited. (MBA2 Professor)

At one school where FBL was well established, there was a group of experienced faculty who together played a leadership role. They had been working with the FBL course for many years and by coaching newer faculty and others, they supported this learning and influenced its evolving curricular design. This knowledge often prevented problems from occurring with the sponsors and student teams that can arise with this type of project learning. One professor said, “….Every year begins with a kickoff where new faculty meet with experienced faculty. We try to pass some wisdom across the generations” (MBA5 Professor).

**Structure of curriculum design.** Some programs preferred a more informal structure, while others created a more formal structure. MBA6 and MBA1 had less structure, while MBA2, MBA3 and MBA4 had more structure in the design of their FBL project courses. The MBA5 program was somewhere in between because the teams were given a fair amount of autonomy, while the support system infrastructure was quite extensive. At one program (MBA6) where the faculty member had been involved with the FBL course since its inception over 20 years ago, the approach was unstructured and completely focused on team meetings with no regular time-slot for the course. Teams met with the professor each week in person or by phone for 45 minutes.

Some programs felt that imposing too much structure on FBL courses could hinder the
practical learning it espoused. As one professor commented, “….I think in these types of experiential learning, it’s very important to not provide much structure for the students. Part of the real learning experience is for them to put structure into something that’s really unstructured” (MBA4 Professor). Other programs felt that more structure was necessary to provide guidance to students who could find FBL project work quite challenging:

The whole process is very challenging to them [the students]. It’s a new way of thinking…They tend to be drawn to advocacy over discovery. They tend to think about expediency over thoroughness. They tend to chase initial thoughts and inspirations…as opposed to a thorough systematic approach… So I think part of the learning process is for them to do it and to get some developmental and evaluative feedback that helps them to understand that there’s different levels [of developing expertise]… we try to use a framework to help them understand that what they do is a step along the way, but that there is a path, there is increasing levels of sophistication to this and that there are tools and techniques for doing this. (MBA3 Professor)

Three of the programs (MBA2, MBA3, MBA4) said that their FBL course was based on the “consulting model.” These were also the only three of the four required FBL courses that involved individuals with consulting backgrounds in designing the course. One faculty respondent mentioned that he incorporated the consulting method approach when he took over and redesigned the FBL course:

So over several years with one of my colleagues, who’s an adjunct professor and a longtime consultant, we rebuilt the course around the consulting methodology…So now we can say, ‘You will learn primarily by doing, the consulting methodology,’ so there are deliverables along the way. There’s a one-page description of the problem early on, then there’s a work plan. Then there’s an interim deliverable and so on… The point is that it’s structured. It’s not just ‘go out and do it’. (MBA2 Professor)

The faculty lead at MBA3, who also drew heavily from the “consulting toolkit” in designing his school’s FBL course, supported this approach: “….Think about what it is that the consulting profession trains their people to do and starting with that, training all of our students to have an understanding of those processes and some of those techniques” (MBA3 Professor). This respondent felt that this method provided a needed focus for the FBL courses:
It’s a combination of classroom and field that has to work together. Defining the focal point of it as what we call the big three, which is tools and techniques for solving problems, ways for managing teams and projects, and techniques for communication and persuasion, and integrating those gave it some kind of a focus, a set of what kinds of specific skills that could be assessed that are important and validating against what the field needs. So giving it that kind of focus… drawing very heavily on the consulting toolkit... [These projects confront] more complex research questions that require the students to do a lot of thinking, working, structuring, to focus, what is the key question and to break that into a set of research questions that clearly add up to answers to the key question. (MBA3 Professor)

In three programs, the faculty had very strong feelings about their responsibilities in designing a more structured course that they felt offered students the level of support they needed for the projects. “….I try to stay away from people who will think that they can do anything they want, or people who believe … that we learn by being thrown into the pool and swimming… That’s not what I think experiential education is. I think it’s designed education. I think our role as designers for the learning is really important” (MBA2 Professor).

In contrast, another program chose a deliberately unstructured approach for their FBL course:

There’s no classroom learning… a team is usually between four and six students. They meet with me once a week… We sort of go through their progress, what are they doing, and so forth. And then, these are multi-functional projects, and so, we have area of expertise faculty. So, depending on, what they’re doing. So, if they’re doing a marketing survey, we’ll send them off, and talk to some marketing survey person, or, if they’re doing some financial spreadsheets, we’ll send them off there”. (MBA6 Professor)

He then continued to describe how he worked with teams to focus on the project work:

Most of the issues that we get from these hosts are way too broad... We have…one semester, so, the first third of the class, a lot of times, is, well, let’s focus down [on] this problem, let’s see what we think is high-priority, and let’s have a project-based on that… And a lot of these teams, they don’t know how to do it… They really struggle, and I don’t help them, because, this is part of their learning. In the real world, I’m not there to help them. So, a lot of it is they have to come up with a focus…. and then they have to persuade the host ‘yeah, this is a focus that you want.’ (MBA6 Professor)

In another program, where these FBL course projects were less structured, one faculty
respondent was particularly philosophical about the goals of this type of education when describing his school’s approach:

I am always reminded of Aristotle when I think about [FBL course name]. He spoke of different kinds of knowledge: Episteme (timeless knowledge like mathematics) Techne (craft-based knowledge) and Phronesis (practical wisdom). To be sure, all kinds of knowledge is cultivated in our curriculum. Some economic and statistical principles may be timeless and certainly the ability to put together a customer relationship management program or structure a leveraged buyout would constitute craft-based knowledge. But of course, much of management draws upon practical wisdom. That is, how do we make judgments among a sophisticated and complex set of alternatives with evaluation criteria that may be at odds with each other, and with different constituents reading the options and decision criteria differently? How do we implement our decisions in a world of unintended consequences? This is the Phronesis that we are trying to develop among our students. I think our impulse to do action-based learning is rooted in a quest to have our students mindfully engage a world where knowledge and truth commingle with the complex realities of a day-to-day organizational life. (MBA5 Professor)

In MBA1, where FBL was offered in different elective courses, the level of structure varied with the faculty member who taught the course and the engagement of the project sponsor. The librarian commented, “….It depends on the class and the professor how well organized it is. That’s the other piece I think that can be complicated. So -- and how involved the company is willing to be and willing to give them information and work with them. So it really varies based on the professor and the projects involved” (MBA1 Librarian).

At another school, there was a required course on project and problem decision making based on the “consulting method” that would prepare students with the skills they would need for FBL work. No other programs offered such a course. Some respondents indicated that they did not feel that additional preparation was necessary and that it defeated the “figure it out” messy experiential nature of FBL. However, MBA2 offered this sort of a course as an elective and the faculty lead said he had hoped it could be made a requirement in preparation for FBL project work. When discussing this elective consulting methods course, he stated:
Many with consulting experience don’t take the course. She [the instructor] gets more than a quarter of the class, probably. So we consider it a big success … that’s a mixture first years and second years, but primarily first years. … The method that she describes [is] an adaptation [of what] all the consulting firms [do] (MBA2 Professor).

He then described his reasoning for adding this elective consulting course to the current required FBL course at his school:

In the ideal world, I think this [FBL course] is two courses and I think it’s important enough for that. Calling [this elective course] “consulting skills” is a problem. Because some of our students hate consulting. [They] think it’s not something they’re ever going to do. If you called it “problem-solving” or “project management,” it’s something they all need. And I tell them that. If you’re going to be a staff person to a vice president, guess what you’re going to be doing? Exactly this kind of work. And you’re not going to have nine weeks. You’re going to have a week. (MBA2 Professor)

In the context of expertise, the FBL faculty leads had extensive backgrounds in an academic discipline. Some also had experience working in top consulting firms such as Mckinsey or Deloitte. All had differing perspectives on their guidance to students on structuring these projects and working with project sponsors. Some felt it was important to follow the client’s lead as closely as possible. In terms of project scope, others felt it was important to determine what was best for the client without being influenced by their input:

So, they’re [student team] generally a little more scared to -- of the host, right? …And I just had to make it clear. Look, I don’t care what the host really wants here. This is what we’re going to do, because this is what the host needs. …And, if there’s some issue, I’ll go back to the host. I generally try to stay out of it, because they should learn how to do that, anyway. So, but, if there’s some issue, I’ll go back to the host, and I’ll just tell the host. (MBA6 Professor)

The data revealed that in some schools, the process of assigning projects to student teams was viewed as a critical part of the pedagogy. Programs worked hard to make sure that teams had diverse membership and included students beyond those they knew well and had typically worked with on other school work. Teams were also based on the team members’ interest in the project. At MBA3, MBA5, and with some projects at MBA6, student teams were assigned by
the students’ bids. In other programs, students choose their own teams. One of the arguments for assigning teams was that this approach reflected the real world work where employees are not given the option of selecting the other team members. In programs where students selected their own team members, one professor acknowledged that there would always be some less motivated teams who did not accomplish as much in the FBL experience as other teams:

There’s this project in the spring. They just don’t care about it. They’ve got other things to do. They find four other people who don’t care and guess what? The project doesn’t work very well. Sometimes they have real troubles with the clients and the project either morphs into something the students didn’t sign up for or whatever. So five fantastic, five real disasters and in the middle, they almost all do really good work for a real person and I think they learn a fair amount. (MBA2 Professor)

In one interview, a professor said that a unique feature in their FBL curriculum was the inclusion of the expertise the business librarians in the research process. He felt this demonstrated a clear example of how his program’s FBL project courses were experimenting with new ways to approach curriculum:

One of the areas that I think has been -- that is very unique about the way we’ve done this… has been the partnership with the library. It’s just my understanding that that’s a different way to approach it. It certainly is different from what we had done historically here at the business school. …But to me it’s one of these examples where a lot of rapid prototyping, a lot of experimentation, a lot of close cooperation and involvement and continued improvement really has led to a lot of very good work and some evidence of improvement in value with still a lot of value left to be created. …Having pretty thoroughly tested this now for a few years [we need] to start to bring other faculty and staff into it so that that becomes… much more marbleized throughout the culture and the process of the school. (MBA3 Professor)

In terms of curricular design, respondents discussed the importance of scheduling activities for FBL that worked best with student routines. In some cases, this was limited to scheduling weekly meetings with the team’s faculty advisor but in others, additional programming was included as part of the course. In one program, respondents reported that they
had recently structured the schedule so that Wednesdays were dedicated to students working on these projects and FBL focused programming:

We have a whole series of [voluntary] noontime workshops that start right when term begins. That’s where I do my opening. Where there are sort of intense sessions on interviewing and running surveys effectively or workshops on strategy frameworks. So someone will go through all the different strategic frameworks that are well known from the core courses to the SWOT type analysis through a whole load of others. There will be someone that does a session on conjoint analysis. There will be someone that does a session on marketing strategy. So depending on the nature of the project these workshops are targeted at providing rigorous tools and methods if those particular tools and methods are appropriate for the particular project you’re working on. (MBA4 Professor)

Deliverables. The final graded work that students produced for their projects’ sponsor typically included a slide deck that summarized their recommendations and that they presented to the client in person or virtually. In addition to this final deliverable, interim materials were sometimes assigned. One professor described this:

As they move through the process …the deliverables become much more focused on [how to] make a persuasive presentation...Early on in the instruction the deliverables are quite modest and quite focused. They’re based on cases, based on problems, based on things in the news, based on stylized client work, creating process type deliverables from problem statements and issue trees and work plans and storyboards up through a final presentation deck. (MBA3 Professor)

The faculty member at another program described the final output of these projects at his school as a 20-page report that included details on their work process and approach:

We have between four and six students on a project. This is all they’re doing that term. And so, if you get four to six people working 50 hours a week; that is a fair bit of person power there. The work can be amazingly good. We ask the students to present a deck to the sponsor and to write up a formal report. The report is about 20 pages of text (with as many appendices as they like); it is akin to a dissertation. By that I mean that we ask them to “think in slow motion.” They lay out the entire context, the problem or opportunity statement, the options that are available to them, the criteria to select from among and between the options, their decision, and their implementation considerations. (MBA5 Professor)

All programs emphasized that the project deliverables were the result of analysis and
work by the team over time. One professor described this process:

The students work in groups of five over 20 weeks and they have to literally go from an overall objective from the client for the project to actually defining the scope of the project, setting up a project plan, and then creating milestones along that project plan and key deliverables, and then in the end presenting their final recommendations to the client in front of a set of judges as well that are industry experts. And so have the confidence to be able to stand by and actually represent their recommendations. (MBA4 Professor)

At another program in which the typical final deliverable was a 25-35 minute PowerPoint presentation to the host, the professor said that deliverables could vary depending on the project focus. He cited examples of one team creating a “pitch book” for a real estate project in Costa Rica and another that created a spreadsheet tool that included all the factors a company must consider for an international expansion (MBA6 Professor). At this same program, the professor incorporated a mid-point review of FBL projects with their sponsor to guarantee that the student team was on track:

So, as part of a contract letter, we have what we call this mid-project review, which is after about maybe five to six weeks we’ve been working on the project. And we’ll go back with the host, and it’s more like a road map. You know, this is what we’re going to do, this is why we’re doing it. And, it’s the host’s final chance to say OK, or not. Generally, the host will say “fine,”... [If not] I will accommodate some, yeah... I mean, half of it is, you have to persuade the host that this is what they want. (MBA6 Professor)

**Instruction.** All the schools spoke about how FBL projects give students the opportunity to apply the skills they had learned in business school to real business situations. One faculty respondent said that this instruction challenged students to dig deeper into different cognitive abilities. The professor said, "….It’s a different type of learning; it’s a different type of cognitive processing, and so forth. And some students just aren’t very good at it. So, I think they are picking up these new skills” (MBA6 Professor). Building on this idea, another faculty respondent concluded that FBL provided an opportunity for students to become more fully engaged in their learning than they had been before:
Take a broad look at the nature of education over the last couple of decades. You will see that students are no longer passive vessels sitting in a classroom waiting to have someone crack open their skulls, pour in knowledge, piece their skulls back together, and give them an Op-Scanned test to test for recall. Those days are gone. And I think they’re gone because such education does not prepare students to live and lead in a complex and dynamic world. Students need practical wisdom. The only way to get it is to be fully engaged and involved in their own education. (MBA5 Professor)

When discussing an FBL project where he recommended the students use the financial modeling software called *Crystal Ball*, one faculty member suggested that this sort of hands-on learning provided unique opportunities to connect classroom teaching to business practice:

It’s weird, like, they don’t know how to use these models. I’ll talk about Monte Carlo simulation, right? And they have to, you know, and they do *Crystal Ball* [software] in Operations [Operations course]. But, they’ve never used it, and then you say, “well, you know, why don’t we do some-- *Crystal Ball,*” and they say, “oh, yeah, *Crystal Ball*, oh, yeah, we can use *Crystal Ball* for that, yeah. Let’s do that.” It’s like [on their own] they don’t make the connection. (MBA6 Professor)

Despite the varied projects from sponsors, many discussed the need to maintain consistency in the FBL course instruction and support. One faculty lead said he dealt with this issue by requiring a meeting of the faculty team advisors meet to:

….have lunch every week during the spring term.... [to] without too heavy a hand, to keep them running the course in a similar way because our students are very sensitive to differences in that way. If one advisor forces a meeting every week and no one else does then we’ll get complaints about that. So it’s not only managing student feelings but it’s quality control. (MBA2 Professor)

At MBA6, the professor approached this in a completely different way by making the entire experience unique for each student team.

**Guidance, coaching, and facilitation.** The professors had very particular ideas about the type of facilitator support roles that needed to be involved with FBL. As one said, “…We ask them [students] to slow down and articulate what they’re doing at every step of the way, with very informed people standing at the ready to listen and help as they can” (MBA5 Professor). In one program, all the teams had a non-tenured faculty advisor. The faculty lead there stressed that
a more important quality of an advisor was their willingness to follow a shared model on how
they worked with student teams.

Every team has a faculty advisor coach and that’s a staff of nine that that’s really my
primary job is managing those people…None of them are tenured faculty other than me.
Or tenure track or any of that. They’re mostly [just] very experienced people. Then you
have them with some consulting backgrounds. …And they want to work with students
and they want to work under me and they don’t give me, they’re not such egotists that
they won’t pretty much do the course the way we all do it. (MBA2 Professor)

In terms of input from project sponsors, MBA4 had weekly team meetings with the
faculty advisor and the client. The faculty advisor also regularly checked in with the client
separately to make sure the student work was on track. In this program, there was typically one
faculty advisor for one to four teams. There were 18-20 advisors, with a third tenured or tenure
track faculty and two-thirds who were lecturers at the business school with senior level business
experience, and who “….could be an ex-partner for McKinsey or they could be an ex-CEO for
some company” (MBA4 Professor). The faculty respondent at MBA5 described extensive
support for student teams as part of the FBL course at his school:

The faculty are more like coaches than they are players. We are “of the team” but not “on
the team.” We give our students our best advice and counsel but we are not there in the
trenches with them every single day. Of course, there are times when we do not have an
answer. The good news is that we know people all over the world who might help.
Faculty are not shy about tapping into their networks for advice and counsel about some
idiosyncratic issue. (MBA5 Professor)

The sentiments of some respondents were reflected in this comment about the facilitation
of FBL student teams. It “…works really well where the team knows how to deal with their
conflicts, the company is available and gives them the information they need to do their job,
faculty set it up in such a way that it’s clear what their objectives are” (MBA5 Career).
However, providing the right amount of coaching support could be a challenge as one faculty
respondent acknowledged:
There’s always this balance in courses like this, between being so involved that you do it for them and being so uninvolved that they do it, but they don’t learn anything. So somehow each advisor has to figure out, are they [student team] getting that they have to do interviews? Do they get that they don’t know anything about the interviews, do they know that there [are] resources here that they absolutely must use? And if the answer’s yes to all that, fine. But if it isn't’, then we push. (MBA2 Professor)

Regularly checking in with teams to make sure the students were on track with their FBL project work was something all programs emphasized. One professor reported that, “….I meet with them weekly, because they’ll wait until the last minute, right? And, so you’re trying to, you know, sort of shove that process along” (MBA6 Professor). The programs found that despite their best efforts, finding the “right” level of support and guidance for this teamwork was a continuing struggle. As one librarian said, “….Sometimes teams don’t get along with their faculty coaches, sometimes they don’t get along with their librarians, and we’ll try to make combinations as best as we can. The goal is that everyone gets what they need during the process” (MBA5 Librarian).

To support these projects, some schools (MBA1, MBA4, and MBA5) provided a resource repository of past projects:

We have a place at [business school name] where there are samples of very successful past projects in different areas. There are guidelines; there are video lectures on a whole variety of topics that students can just listen to at their leisure online. So that all exists as well, which again are just more resources to sort of increase the likelihood of success reaching these teams. (MBA4 Professor)

In discussing coaching support for students, a number of respondents mentioned the issue of how FBL also gives students the opportunity to practice making good use of the expertise available to help with project work. This offered a means for students to develop a deeper understanding of the broader collaborative nature of effective project work and the importance of not approaching such work with a narrow limited mindset. One faculty lead reported that “….I stress that
learning to work with experts is part of what this course is about… It’s access to expertise” (MBA2 Professor).

4.2.3 Summary of Research Question 2

Two themes emerged in this research about the organizational structure of FBL: who was in charge and responsible for various aspects of these courses and how much structure the course included in order to satisfy its objectives. There were issues with the roles of tenured or tenure track faculty, adjunct faculty, and non-academic staff in course leadership and administrator roles. In some programs, the courses were part of a more open organizational structure that was focused exclusively on team meetings with faculty or other advisors; others included required or optional training classes as part of the course curriculum. The FBL courses with more structure generally drew from the “consulting model.”

4.3 Field-based Learning (FBL) – Outcomes

Research Question 3: What are the perceptions of the outcomes of this learning on MBA students in general and in particular in terms of the quality of students’ research and information gathering for these projects?

This section reviews the perceived outcomes achieved in FBL courses. This includes the general characteristics of the learning outcomes and the specific details. These include outcomes that could be quantitatively measured and others that did not lend themselves to such a defined evaluation. This section also reviews specific outcomes discussed by respondents in the area of improvements in students’ research and information gathering abilities.

4.3.1 Experiential Field-based Learning Outcomes – General Characteristics

In examining the perceptions of the general benefits and learning outcomes from FBL courses, the respondents stressed that this type of learning could not be quantitatively measured and should not be. They felt the takeaways were too nuanced:
We live in a world where measurement matters. Certainly, some folks would like us to run some kind of regression where action-based learning would sit next to all manner of other predictors of some educational outcome. A large and significant beta coefficient would somehow prove that action-based learning “matters.” Of course, those with practical wisdom know that such an analysis will never capture the benefit of practical wisdom. Einstein was the one who reportedly said, ‘Not everything that counts can be counted, and not everything that can be counted counts.’ We need to be wary of such a measurement regime. (MBA5 Professor)

Even without quantitative measures, the respondents were quite passionate about how valuable they felt this learning was for students. One professor said,

Every intuition I have tells me that we really do need to take our students… into a complicated and changing world where people are working on complex problems and opportunities that really matter... The idea is hone their judgment and decision making capabilities by doing this kind of mindful work. (MBA5 Professor)

They felt this learning had a real impact on students:

I mean not really if you’re talking about students who directly attribute that to their success. No, probably not. But is it a growth experience? Yes. Is a growth experience of any kind going to translate into your professional life? Probably. I mean you can learn something from it... I wish I could say it is the reason or a real deciding factor for companies to come to [business school name], but I don’t think that’s the case. I think it’s attractive to students and I think it’s a selling point for students. And I think it’s a learning experience that they’re not going to get in that form anywhere else in their life or in their professional career. (MBA2 Career2)

A faculty lead at another program added that these projects with real business people offered ways for students to develop their professional network. He pointed this out in describing how potentially consequential the outcomes could be of these FBL projects. He said, “….Because until you have to apply what you’ve learned in a course on a real problem that has real consequences if you screw it up, other than just a grade consequence -- because these are prospective employers. These are nodes on your future network” (MBA4 Professor).

Another aspect that made it difficult to evaluate its impact was the level of novelty for many students. The learning curve for some students could be quite steep. As one professor commented, “….The other thing that makes it difficult to assess is because there’s a great deal of
variability. There are some students who get it early on, immediately, and others I think for whom it will take time and that would include for some never. So there’s an awful lot of variability” (MBA3 Professor). In addition, the projects could vary considerably. This variation could also complicate a satisfactory standard process for evaluating what students learned. The professor said:

The degree of difficulty varies dramatically across these projects. Sometimes the students are handed a very well-structured problem or opportunity with a ton of support from the company, I have been stunned by the support our students sometimes receive. Bring a team of six super-smart and super-motivated students to a project like that and well, the results can be stupendous. But sometimes (and thankfully, not often) you may see a four-person team try to run through administrative quicksand to get the work done. Nothing is worse than a loosely structured problem offered by an anxious but noncompliant company. The end result may not compare to the former project but then again, the latter group of students may have done a yeoman’s job. We are very alert to that kind of situation. (MBA5 Professor)

At MBA3, which had a more structured approach in its FBL course with frameworks to follow and techniques for student teams to use, the faculty lead admitted that there had been “mixed success” in terms of student outcomes:

Some completely get it and become quite expert in it. Others really still try to take the path of least resistance and to be honest part of it’s a question of capacity, they don’t quite get it, but often it’s the cold calculus of too much work to do across all their courses and too little time and they’re looking for ways to shortcut and sometimes these research projects are the victims of that… We’ve got processes to help them and …we get mixed results. Despite our best efforts, I must say. (MBA3 Professor)

Other sorts of valuable but difficult to grade learning outcomes that could be accomplished with these projects included developing skills in working with teams and working effectively with clients and different cultures. As an example, one lead faculty member described the work from students on a project in Armenia he had witnessed:

In four days there, they did 39 interviews... They just had an amazing experience parachuting into a culture they knew nothing about and trying to help out and trying to listen to people and figure out an answer for the client. So does that have an influence? Yeah. That’s going to have a big influence. Not very academic... but it’s good stuff.
Another respondent summarized some additional skills students had developed. He suggested that, “….This form of experiential learning takes even the case study form up to a different notch… in terms of developing leadership capabilities in the students, in developing real sort of capabilities in time management, project management, analytics” (MBA4 Professor).

4.3.2 What Could be Measured

Grading. One quantitative measure used to evaluate outcomes was the grade each student received for their work in these courses. Primary among them was the grade received for their final project deliverable. There were issues around evaluating this project work because there were numerous facilitator roles. Evaluating this type of learning was challenging because choices needed to be made about what was evaluated, how it was evaluated, and how the FBL course would be integrated into the grading systems used with the more typical MBA courses. One professor suggested that this evaluation problem could be the reason some institutions had stopped offering this type of learning. As the professor said, “….The assessment part is, you know, all business schools are under this kind of pressure to assess. Well, that’s hard enough to assess a statistics course. It’s really hard to assess a course like this, but we should be working on that…I think there’s more we can do” (MBA2 Professor).

Another consideration was the need to determine how much input from the support roles could be factored into the final grade. The MBA3 program made an effort to include insights from other support roles, including librarians, into each team’s final evaluation and grade. However, in other programs, input on that grade and final grading came only from the student team’s faculty advisor. In terms of grading presentations, one faculty member stated that he focused on “quality of argument. That’s what I grade presentations on” (MBA2 Professor).
MBA4, the team’s work was graded by the faculty advisor. Evaluation was based on peer assessment, quality and quantity of research, teamwork, and whether recommendations added value to the client. At another program, where only the two advising faculty for each student team were responsible for the grading, the respondent discussed the challenges of grading work by teams with the proportional system of grading typical of MBA programs. One professor said:

Grading is difficult. Two faculty members will grade each student team. I mentioned that 25% of our students can receive an “excellent” grade. But what happens when one faculty member is working with eight teams and another is working with two? Obviously, the first person can give two “excellents,” but the second can only give one half of one. Suffice it to say that we are aware of this problem and that we have ways to solve it. (MBA5 Professor)

In some programs, only the content of the final presentation to the sponsor, not the team process of working on it, was graded. This was not the case at other programs (MBA2, MBA3, and MBA4). The professor interviewed at MBA5 said they did not grade the student work on process because they felt such grading would distract the students from focusing on the quality of the final deliverable. The professor said:

We pay far more attention to the content of the work than we do the process involved in producing it. That is to say that we know the students will struggle from time to time. We do not want them to worry about managing us when they are having a hard time managing themselves. I should also say that we have all kinds of “process help” available to them. (MBA5 Professor)

The team process of working on these projects and the final deliverable were both graded in other programs, as described by one professor:

The faculty advisor actually gives them the grade, their final grade, and it has a whole load of components to it. They get evaluated on how their peers evaluate each of them on the team, they get evaluated on their actual research quality and quantity, so primary research and secondary research, they get evaluated as to the effectiveness of their team, and then they get evaluated as to whether the project actually added value to the client. (MBA4 Professor)

In another program, the professor met with all the teams in the course and evaluated all of
their work for the final grade. He focused more on “team effort” with his and peer evaluations submitted by the team members:

I do the evaluation of the work…. So, we grade more on effort, and we give a team grade, so the team gets a grade. But, then the team members have peer evaluations on each other and someone’s grade can either go up or down, based on the peer evaluation, and generally, the grades go down, because, you know, someone’s not been pulling their weight. (MBA6 Professor)

In MBA3, the grade incorporated evaluation of the process as well as the interim and final deliverables. This grade also factored in evaluations from the different team advisors and other roles, as one professor reported:

The work is evaluated in numerous ways …In the classroom phase it tends to be -- the faculty member and TAs who have taken the course before using rubrics to try to evaluate the progress along the way. At the end when they’re making presentations depending on the setting it’s some combination of a faculty teaching team, which broadly includes not just the professor but also sometimes program directors, program staff, and also staff from the library. It includes TAs, sometimes includes alumni, and it often includes clients themselves. And so depending on the situation there can be a very robust panel who have a rubric that they use to look at the presentation, not just the delivery but the content on the page, the analysis behind it and so forth, in order to provide developmental and evaluative feedback. (MBA3 Professor)

Career-related outcomes. The respondents believed that what students learn from FBL courses made them more attractive to recruiters and helped them in attaining their career goals when they graduated. One advisor said, “…..I think any sort of practical hands-on experience with problem solving, with working with information, with sort of delving through and finding what the core issue is, is helpful for their internship and their future jobs and their career” (MBA3 Career). However, this same career services professional stated, in terms of the potential career outcomes of FBL that “….there’s no way to sort of measure that. At least from our perspective. Is that what is causing students to succeed in their internship or in their full-time position? We like to think that that’s one of the reasons why the school is doing better from an outcomes perspective. It’s difficult …to draw the direct absolute correlation” (MBA3 Career).
Another respondent had observed that sponsors for projects at his school had used them as a way to become more familiar with potential hires. He said that, “…So, some firms use us for hiring, right, because they get to see students up close, the students get to know them. And, so, they do hiring through a [FBL course name], it’s, you know, relatively cheap for them” (MBA6 Professor).

Students may come into MBA programs because they’re looking to change or switch their career path. One respondent identified how helpful these projects could be for these “career switchers to explore and get experience in different areas” (MBA6 Career). One program routinely surveyed their alumni to obtain feedback on the impact of this learning on their careers, and the responses have generally been favorable:

We survey our alumni and asked them to reflect on their education. The [FBL course name] testimony is very favorable. But of course, working with the [FBL course name] program for 25 years now, we have no control group. That is, our students do not know what it is like to have an MBA education without [FBL course name]. They only know what they know. Still, all signs suggest that [FBL course name] is an important and essential part of their educational experience. (MBA5 Professor)

Another tangible outcome was how the work of FBL courses with project sponsor organizations gave the development office at one respondent’s school an opportunity to promote the school in a different way. Commented one professor, “…Generally, when you’re a partner here… You get this tangible product. In three months, you get this full report, -- so, you know, you can use it. So, development has sort of used us to interest people in the [business school name] school. And, so, we’re used that way by them. (MBA6 Professor)

4.3.3 What Could not be Measured

Perceived outcomes. Beyond grades, there were a number of loosely measurable outcomes from FBL. The learning process made students more attractive to recruiters and helped them get jobs. The outreach that took place working with project sponsors also provided
an opportunity to promote the school in a different way. Beyond these effects, the interviews
clearly indicated that while the respondents felt that the outcomes from FBL project courses for
most students was quite positive, they admitted that there was no definitive way to measure the
impact. A number of respondents referenced the longevity of their programs, positive student
feedback, and the fact that the sponsor organizations kept returning for more work with students
was evidence that what they did had a positive outcome. As one professor said:

Can I quantify that our students are somehow wiser and more prudent for the experience?
It’s hard to say. I’d say probably not. We could try. But the fact is that students,
companies and nonprofits keep coming back, other schools are now copying us, and we
celebrate this as a signature aspect of our program. All of that says that we are doing
something right. Look at the numbers: 9,588 students have completed 1,845 projects in
1,292 organizations in 93 countries. Maybe that says it all. (MBA5 Professor)

Student course feedback was another means of assessing learning outcomes. One of the
problems with this mode of evaluation was that the feedback was collected from students
immediately after they completed the course. A faculty respondent at MBA5 suggested that this
feedback would be more valuable if it was focused on how they had applied what they learned in
FBL in their internship or job after they graduated:

The feedback we get anecdotally from students, particularly after they’ve been through
an internship and have gotten into a full-time job, has been good. And in fact, that seems
to be where the light bulb starts to really turn on brightly where it makes sense to them.
As they’re doing it, they’re not quite sure…it’s unlike anything that they’ve seen in their
previous education. They compare notes with people at other schools and they tend to
not find anything quite like this, they tend to trust us, but it’s when they go to their
internship …and they find themselves getting called out for superior work or something
that’s different and better than some of their peers from other schools. When they get the
[job] offer, when they …start developing some of the new people that come in behind
them [in the MBA program], there’s just some anecdotal evidence that they start to really
see oh, this whole [FBL course name] portfolio is very powerful stuff and it’s different
and it’s better and it helps distinguish me from these others. (MBA3 Professor)

This aspect of students not realizing the long-term relevance of FBL during the course
was mentioned by a career services professional:
I think a lot of students initially will look at [FBL course name] and go like oh, this is a really long task and I’m not necessarily, I don’t want to go into consulting so I don’t see why this is relevant. But at the end of the day, after going through it and recognizing that many of the projects that they’ll be working on in their work and many of the chores that they have will require a lot of the same skills... end up paying dividends in their career. I can definitely speak to that as a student. It definitely helped me prepare for my career. (MBA4 Career)

Another respondent pointed to the judgment of the many professionals involved in supporting this learning who see its merits despite the absence of quantifiable “return on investment” measures:

[In terms of] ASCSB requirements and all this outcome based assessment and everything else, there’s a sense that it would be nice to be able to tell your story and there is an investment here … [based on] the judgment of professionals that suggest that this matters. But on the other hand, if you’ve got the judgment of a building full of professionals that spend their whole life thinking about educating MBA students and they all seem to think this is a good idea, you might want to honor that as well. Despite what they say about “group think” and everything else. (MBA5 Professor)

Reflection. Two of the programs have recently been working with reflective exercises as an outcome tool for students to assess their learning. In both programs, this was a relatively new initiative. At MBA5, reflection had become a major initiative for the school’s leadership institute that includes the entire curriculum, not just FBL:

Now we’re going to require you to reflect on that experience in these different ways…What did you learn, what did you do well, what would you do differently, etc.. So that’s something that [business school name] is starting to do, because that is how leaders develop and grow - by reflecting and learning from their experiences. I think it will be required four times a year, where every time a student has a major experience like [FBL course name], or doing their internship, or team project, they will be asked to reflect on it, and think about it, and learn from it, and then be intentional about what they want to do different going forward. (MBA5 Career)

The faculty member from MBA2 said his program did reflection work with FBL as an additional team paper of five pages as well as a personal one page debrief from each team member. In describing this assignment, he asked the students to reflect on “Why did you choose the project? Why’d you choose the team? What were your goals? What did you expect to have
happen?” (MBA2 Professor). He then added that the school had a required course in teamwork skills, so “….we try at the beginning to get them to think back to the teamwork course and to formulate specific objectives around their teamwork skills… we’re always looking for ways in the projects to draw on what they’ve been taught in other courses” (MBA2 Professor). He reported that after the MBA students completed these papers, each faculty advisor met with their team for an in-person review. The professor stated that:

The point of it is, really to try to get them to realize that to a large extent the experience they had was determined by the effort they put in, the goals they formulated... And each faculty advisor does it with his teams. And that report and that just goes into kind of an overall participation grade. So we grade them on -- how they perform in team meetings, how they perform in the presentation. That’s all participation grade (MBA2 Professor).

The programs admitted the challenges they had faced in adding reflective activities to their pedagogy. At one program, the professor interviewed the students but did not include reflection work because he thought the students just saw it as busy work. One other professor who thought reflective work was beneficial said that a major challenge was the timing after students had completed their projects, which was at the end of the school year:

Students have just worked their guts out for seven weeks. Wanting to put their experience behind them for a while, attend their friends’ graduation parties, and get ready to move away for the summer, well, it is just a difficult time to sit back and reflect. We have tried a number of things and truth be told, none of them seem to work all that well. We continue to look at this. (MBA5 Professor)

Comparable frustrations were shared by the other faculty members who said, “….The reflection part is, it’s a great idea and all three [FBL] courses use it, but nobody’s got any real understanding of well, how you operationalize it” (MBA2 Professor).

At MBA5, reflective exercises were not only advocated for students but they had also taken the process of self-evaluation of the FBL program overall quite seriously over the years:

We have a standing [FBL course name] committee that reviews projects and works to ensure the integrity of our program. On top of that, it seems like every few years, we put
together a task force to take stock of the program. We are always trying to improve it (MBA5 Professor).

This same program had an annual FBL instructional debriefing as a way to share stories and build programmatic goodwill:

It’s fun to go to our end of the year meeting. Everybody comes to the table to say “Okay, what went well and what went not so well this year?” We ask ourselves how we can do our work better. It is fun because the entire team is made visible...our communications faculty, our research staff, librarians, the head of our coaching group, and more. There’s respect and good will all around. It is nice to see that so many people care. (MBA5 Professor)

This program valued programmatic self-evaluation and had a Chief Learning Officer who assumed responsibility for this function. No other program included such a role:

We also have an adjunct faculty colleague (a woman with a PhD in education), who for the past few years has served as our in-house learning officer. She moves among and between the teams to capture the nature of all the informal work and the implicit learning. So she’s been paying attention to what we do; she has been trying to codify lessons learned and carry them back to the faculty. (MBA5 Professor)

4.3.4 Experiential Field-based Learning Outcomes – Information Related Aspects

The respondents indicated that the student research varied in quality. They could not define any factors that influenced this quality other than the assumption that the teams that were more focused and worked well together tended to do better information gathering and had better deliverables. In only one program did the librarians play a role in formally evaluating the research component of each team’s work. In two other programs, students evaluated the librarians’ support of FBL project work, although the librarians did not evaluate students. In discussing the typical quality of the research done on these projects, one respondent stated the following:

It’s quite varied both in type and in quality…. What we like, the best work is stuff that’s really very focused where the work stream, the research stream, can be tied directly to necessary answers to necessary questions and where they’ve thought carefully and deeply about all the possible sources of information and the quality of information and so forth,
where it’s a discovery process as opposed to backing into an answer or an advocacy type of a process. So in that regard the typical quality starts out poor and gets better. Sometimes it’s pretty good, sometimes it remains not great, to be honest. It’s a very challenging -- the whole process is very challenging to them. (MBA3 Professor)

Business librarians at this school evaluated the research and information gathering components of student team presentations. This evaluation was then factored into each team’s final course grade:

The specific evaluation form that we use is based on one of the briefs that we created called *The Five Dimensions of Business Intelligence*. And that, specifically, speaks to the hat that we wear which is looking at their deck, looking at the presentation, listening to the Q and A and getting a sense of, you know, how -- did they use good resources? Did they do good research? Did they really push themselves and challenge themselves and the resources? So that’s the hat we wear when we judge. And then we would summarize our observations for each team and share that with the faculty and they will use that as part of their decision-making process on grading the teams. (MBA3 Librarian)

At another school, librarians sent surveys to students which asked if the student’s experience with their team’s FBL project librarian was positive or negative; however the survey did not ask how that experience changed their capabilities. One librarian said that, “….We don’t have a strong feedback loop on that …, which I think is unfortunate” (MBA2 Librarians). At another school, the librarians participated in surveys about the students’ experiences with their FBL course. One librarian said, “….We are evaluated, as are the communication consultants, and the faculty on their [students] overall experience with the [FBL course name] office” (MBA5 Librarian). This librarian added that, “…We get really great feedback from the faculty and the students about our participation” (MBA5 Librarian).

In discussing information related outcomes, one professor emphasized how challenging it could be for students to effectively incorporate the research they had done on these FBL projects:

Part of the real learning experience is for them to put structure into something that’s really unstructured. That’s really hard. It’s very hard to do that. And then to build a story once you get to a logical plan and you do your due diligence and all of your research and come up with some recommendations based on real data, then converting all
of that into a real story that is telling and persuasive to someone, it’s a real art. There’s a blending of an art and science here that makes it such a valuable experience. (MBA4 Professor)

One faculty member discussed how difficult it was to determine:

….what particularly about research skills they do better. We do see improvements intra program where they do tend to get a little better, but we also see evidence of when given an opportunity to do it however they want when they’re not being evaluated on it, so many of them do tend to fall back into old habits very quickly. So you know, it’s tough. It’s a very difficult one to measure and assess (MBA3 Professor).

Another respondent discussed how challenging it was to make graduates discerning consumers of information when they did research. As one librarian said,

We’re building students who appreciate and understand the complexity of the information landscape, and I think that’s a more -- I think at the end of the day, that’s a more powerful graduate, who will then be able to hopefully make better decisions by understanding that [if] they’re looking at a single report on the Thai food industry,...OK, that’s one opinion. How do we figure out something else, as opposed to someone who says, ‘Well, it’s in a pretty report, so therefore it must be 100% valid.’ So, that’s been, for me at least, that’s been a really big issue (MBA5 Librarian).

On this same theme, another librarian from another program talked about the success her program had in helping students “connect the dots” in terms of project work and the research they did, while admitting that there still was work to be done:

I think, as [FBL course name] has gotten more formalized over the past two to two and a half years, we’ve seen more of those dots being connected …if you ask any of the business librarians, I think they might say that perhaps, in the past … six months to a year, they’re seeing more of the light bulbs going off with the students. Still a lot of work to be done but I think we’re in a really, really good place in terms of starting to figure out -- actually, I think we’re almost a little bit beyond figuring out what’s needed and now figuring out how do we message it and integrate it in the other learning experiences so that it’s not a one off experience. But that they’re continuously taking …all the toolkits that they learn … and using those over and over and over again in their classes and their preparation for internships and jobs so that…they develop the habits that are important. (MBA3 Librarian)
4.3.5 Summary of Research Question 3

There were many challenges in assessing the outcomes in the different FBL courses. Student work was evaluated in a number of ways, with some programs focusing on formal evaluation of final deliverables, while others also evaluated the process of students working on the project and some interim work deliverables. All respondents said that the FBL projects gave students the opportunity to practice the type of information gathering they would need to do in the real world. Self–reflective work was seen as a powerful means for students to determine their own achievements but no program had yet uncovered a single effective evaluation method that worked for all students.
Chapter 5
Roles Supporting Field-Based Learning (FBL)

Research Question 4: What are the roles and jurisdictional claim of those involved in the provision of this learning?

This chapter reviews the different roles that support FBL project courses. The roles include the school administrative leadership represented by the business school dean, FBL administrator roles, faculty, team advisors, project sponsors, career services professionals, student peer advisors, information technology staff, alumni, and business librarians. Within the organizational mix of those who support FBL at the top 20 full-time MBA programs, this research focused with particular detail on the business librarians at these schools.

This chapter describes and analyzes the roles that work with FBL project courses. This includes analyses of the interaction between different roles, and the various forms of the business librarian role that supports FBL. The final section of this chapter includes a social network analysis of the roles involved in FBL project courses at the six programs that served as cases for this research.

5.1 Descriptions of Roles

The delivery of FBL project courses involved administrator roles that secured projects from sponsor companies or organizations, and managed logistics and the financial management of the course expenses. There were also pedagogically focused roles that involved designing the curriculum and supporting student learning throughout the instructional process. As an example, one respondent provided an extensive list of all the individuals who supported the FBL course at his school:

Take a look at our ecology of learning here. It is quite something. In addition to the team’s two dedicated faculty members, the students have a communication faculty member by their side, a full-time research scientist at the ready to help with methodological and statistical questions, a personal reference librarian, and an MBA 2
coach (a trained second-year MBA student to help them with group process challenges). And of course, they have the entire [FBL course name] back office available to help with their travel, reimbursement, health, and issues of all kinds. It is pretty amazing. I know that pride cometh before the fall but even still, I am proud of what we do. (MBA5 Professor)

5.1.1 School Administrative Leadership

In all six case studies, the business school dean was the individual with overall responsibility for administration of the school’s programming and curriculum. According to Thomas, Lorange, and Sheth (2013), business schools are always led by a dean who “must learn to champion both the academic values of the university and the professional values of their external management constituency” (p. 202). Deans not only serve as a school’s leader but also as the school’s chief ambassador to the outside world, chief fund raiser, and leader who is devoted to “enhancing the school’s intellectual capital base” (Hay, 2013, p. 84) through strategic support and development of its scholarship, teaching, and thought leadership. The interview data revealed different organizational structures under the dean that administer the work of the school, including its FBL curriculum. Schools that offered different types of MBA degrees, also had staff that reported to the dean.

5.1.2 FBL Administrator Roles

In three of the four programs in which FBL courses were required, there was a separate administrative infrastructure to support FBL courses. One school (MBA2) had one required FBL course and two elective FBL opportunities, with each having an administrator in charge with staff who assisted with this work. In cases in which the program charged fees for such projects, the FBL administrators managed the collection of the fees. In the course that did not have a separate infrastructure where the FBL course was required, the lead faculty member, an associate dean, held both the administrator and curriculum design roles. This program was smaller and
newer than the other programs. While this school did not have a specific FBL administrative
department, other administrative areas of the school were involved with various aspects of this
course. The faculty respondent at this program shared that positions like chief financial officer
(CFO) and vice dean for faculty had interests in the non-curricular administration of FBL. This
was also the case in the other programs:

Our CFO has an interest in this because there are monetary implications. Our vice deans
have an interest and involvement in this because the vice dean over programs wants to
make sure we have coherent programs to make sure that these things work and are an
effective part across all our programs. They need to be staffed and so the vice dean for
faculty has an interest. She has to make sure that we’ve got the right kinds of resources
and staffing from a faculty perspective and so on and so forth. And of course the
program offices themselves. (MBA3 Professor)

At MBA6, in which the main FBL course was an elective, one individual held the
administrator role. The lead faculty member at this program, who was responsible for
curriculum design, met with all the teams in the fall and spring offering of the course. He also
was involved in identifying project sponsors for the course. His colleague was in charge of
administration, and was involved in securing projects, managing the finances and any logistical
issues for the teams such as travel and arranging the weekly meetings of the professor with
student teams. Since this program had no classroom learning, all instruction took place in
weekly team meetings with the professor. In the other school where this type of instruction took
place only as an elective in specially designated FBL classes, curricular design was led by the
faculty member teaching the course. However, it was clear that this type of learning was very
important to that school’s dean, emphasized by the fact that a new role in the Dean’s office had
recently been established to identify contacts for the school and especially those interested in
sponsoring FBL projects. The title of this new position was Director of Strategic Curricular
Networks and Partnerships (MBA1).
One respondent shared that the associate dean responsible for managing the full-time MBA program was a strong advocate for the FBL course. He felt that this type of learning could teach students skills in effective information gathering and research that would be a challenge to acquire effectively with typical instruction. The professor said,

In the full-time MBA program the current associate dean for MBA programs is particularly interested in what he would frame as business intelligence and what we think about as the research component, the good questions and good answers component of it, and he’s made it part of his own mission to support that. He really wants to see it happen in the students because from his own experience and practice that is really key. (MBA3 Professor).

5.1.3 Faculty

Faculty often report to their disciplinary department chair who reports to the dean’s office. Interviews confirmed that this reporting arrangement was quite unstructured in some schools. One of the professors commented that before taking over the faculty leadership of his school’s FBL program:

I guess I reported to the associate dean for MBA curriculum, but we have a tradition of extreme autonomy, almost complete autonomy and the associate deans are busy, mostly with students over other things, you know. So if you ask me, who do I report to, I think I would have said, No one really, I certainly felt no one. (MBA2 Professor)

In addition to tenured and tenure track faculty, these MBA programs had management practitioners who did not have doctoral degrees and who served as professors of practice in the roles of adjuncts or lecturers.

In all programs, a faculty member served as both a key designer of the FBL course as well as a teacher. This often also included managing the group of faculty members that was directly advising each team. One faculty lead described how important he felt it was to design these courses clearly so that students would receive focused, constructive guidance. He said, “….That’s a lot of our role, it’s just being devil’s advocate, just requiring them to challenging
[sic] assumptions and requirement to put together a really tight, logical presentation, into which information of various sorts contributes” (MBA2 Professor). In this program, every team had a faculty coach and there were nine faculty coaches who were called advisors. Some advisors had only one team and others had more. The faculty lead supervised five teams.

One of the career professionals was unusual because he was also a faculty advisor for FBL projects. He had been a faculty advisor for only one team at a time. The faculty advisors in this program were all adjunct faculty except for the faculty member who lead the program. In another program, the required FBL component for full-time MBA students included a required core class in the fall semester with guidance on the consulting and problem solving process that students applied to a simulated project. In the spring semester, the students chose among five FBL course electives in which teams worked on real projects with a company or organization. The faculty lead for each of these courses had considerable autonomy in the course design. As one professor said, “….They’re really their courses and they’re free, as any faculty member would be, to do most anything they want in their courses, provided that it sticks within the approved definition of what a field course looks like” (MBA3 Professor).

At MBA5, each team had two full-time faculty members who advised each project, with one entitled the “travelling advisor” and the other the “non-travelling advisor.” The travelling advisor was the liaison with the sponsoring organization. Both faculty advisors were on a tenure track, although one typically had more experience with the school’s FBL required course: “We almost always pair a new faculty member with an experienced one. We try not to take two complete greenhorns and put them together with students in an organization” (MBA5 Professor). The teaching load credits for working with these FBL courses increased by the number of teams
being advised, with a typical amount of eight projects per faculty member. These faculty members graded the teams’ final project deliverable.

At MBA4, there were weekly team meetings with the client and faculty advisor. The faculty advisor also spoke to the client on a regular basis to assure that the student work was progressing. Typically, there was one faculty advisor for one to four teams. Of the 18 to 20 advisors, a third were tenured or tenure track faculty and the others were lecturers with extensive business experience.

5.1.4 Team Advisors

The FBL project learning provided students with an important opportunity to develop an understanding of the effective use of specialized knowledge expertise. The programs included an assigned team faculty advisor and additional optional advisors with special expertise. Typically, these advisors came from outside the school and from diverse work backgrounds. One faculty lead commented that “….I stress that learning to work with experts is part of what this course is about” (MBA2 Professor). This same respondent who described the various advisory roles available in his program highlighted this diversity of support:

The resources that we make available to the students include not just the librarians, but a professor who is a marketing professor who’s an expert in survey design. One of our faculty advisors, who’s an adjunct professor who’s an expert in interview design -- and they can always come to me for expertise on spreadsheets. And when they need statistical help they tend to go to one of the other the people who taught them the statistics course. So that’s just quickly a set of resources that I put under the heading of accessed expertise. (MBA2 Professor)

As an example, this professor described the support offered by the survey design expert: “We pay this professor to give us an actual 90 minute classroom session on survey design and offer a ton of office hours” (MBA2 Professor). The program also offers support from an expert in interviewing. According to this professor, students were not required to attend these classes
although faculty advisors typically recommend attendance. One real asset of the program was these experts’ experience outside academia. The professor felt that this expertise complemented that offered from within the faculty:

I think now if you look at the team of advisors, both internal and external to [business school name]; invariably these are people who have worked professionally as consultants and who can really help teach the students how to do this job. I think that’s important actually. I think it makes the students respect the process more, that they’re learning from people who have done it, and I think it does inevitably improve the quality of the product. I think we also have a lot of other ways of bringing in experts. So for instance, if the students are going through a process of running a conjoint analysis or a survey we now have a marketing professor who’s an expert in the subject who will give tailored classes at the right time of year for this project to those students. So I think it enables us to bring in some of the academic expertise at the point of need vs. just in a completely classroom based environment which is detached from reality. (MBA2 Career1)

In another program, there was one faculty member who was a “dedicated person who is just their research resource available to students for construction and interview protocols” (MBA5 Professor). At this school, each team also had a communications faculty member who supporting them. Some of these positions were filled by full-time faculty and some by adjuncts.

The advisory roles at MBA4 included a team effectiveness advisor who collected a personality profile of each team member and coached the team. The business librarian referred to these advisors as the “team therapist.” There was also a communications faculty member who advised all teams on writing and presentation skills. Additional advisory roles included various presenters at optional “noontime workshops” who discussed different tools and methods appropriate for the student projects, such as interviewing for primary data and conjoint analysis.

Attendance at these sessions was not required but was recommended if the topic would be helpful to the team’s project. This same program had an informal role called alumni mentors who were available as needed by the teams. According to one professor, this was:

Somebody that graduated the previous year from [the school] and did the strategy project…So those folks are there as a resource where a team can use them as a sounding
board on various things, whether it be how to get around a specific obstacle, how to increase their sample sizes, how to get more people to say yes on responding to interview requests. It could be anything like that and they’re just a sort of as needed resource that’s there to help. (MBA4 Professor)

5.1.5 Project Sponsor Organization Representatives

To participate in an FBL course, an organization or company must provide a real business project for the MBA students. The sponsors at the six case programs were called “clients, hosts, or sponsors.” At one program where the organizations were called “hosts”, the organizations returned as sponsors year after year. The professor estimated that at his program “….40% of the host organizations they get projects from they have gotten projects from before” (MBA6 Professor).

At MBA6, advisors limited the team’s interaction with the host. They felt that by keeping a distance, the teams were more likely to provide a fresh outlook in their recommendations. Only one student in a team was assigned as the host contact. Commented one professor,

We feel our competitive advantage is that we have this fresh outlook on the situation, right? So, unlike a lot of programs, we try to limit the interaction with the managers, because we don’t want the managers influencing the students in what they want....we just try to limit [contact with the host]... give us data, that’s all we want from you, you know. We don’t want to hear what your ideas are, and so forth, because we’re probably going to come up with something different. (MBA6 Professor)

This program was the only one of the six cases that handled client engagements from a distance. In the other programs, the student teams had more interaction with the sponsor organizations, which expected to work directly with the students throughout project.

5.1.6 Career Services Professionals

Career services departments in this research did not have any direct role in supporting FBL. As one respondent said, he felt his role was greater “….once they [MBA students] have
the experience, how can we help them market it? How do they market it for themselves?”

(MBA1 Career). A respondent from another program described this informal role in a different way:

So I guess that’s where we’re most helpful is helping them to kind of think through the project, helping them put structure around the project, or listening to what they think they want to do and just being a sounding board. And then the other thing is actually connecting them with people who are in that field or who know something about that field. (MBA2 Career2)

The roles that offer career support in business schools are typically organized by sector verticals that focus on career advising and corporate outreach (Feldman, 2013; MBA Career Services & Employer Alliance, 2014). The sectors or categories included finance, healthcare, consulting, marketing, entertainment, and energy. Two of the career services professionals interviewed for this study were also alumni of the MBA program for which they worked.

The career services professionals said their positions included advising students as well as conducting outreach to companies for recruitment. One respondent was also the manager of the school’s career services center who had oversight for all staff in that department. Their responsibilities included the extensive career advising of students:

I work with the MBA students right when they come to campus to start their MBA until they graduate in those two years. Any help, any questions, any guidance they need related to their career such as career opportunities, resume review, interview preparation and offer negotiation, I am their point of contact. (MBA6 Career)

When not supporting students in locating internships and jobs, the career services professionals connected with potential employers for their students:

On the corporate outreach side my role is working with companies… to help them understand what strategies they can use to more effectively work with [our school] as well as for me to have an understanding of the profiles that they’re looking for so I better know how to prepare our students for that process. (MBA4 Career)

Another career services professional emphasized that professionals in her position are assets
because they are not academics: “We actually have a work background…We’re sounding boards. We’re industry resources…I’ve got a whole network outside of [this school] and they use me for that” (MBA2 Career2).

At five of the six programs, the career service professionals said that they played an auxiliary role as FBL course advocates and sources for recommendations about company sponsors for potential projects. At MBA2, a career service professional also served as a faculty coach for a FBL course student team. One career services professional said that:

We don’t play an active role in the experiential learning component, although as companies have -- perhaps they want to do a project or whatever or they’re looking for interns or part-time help to do certain types of work [and] we think that that might be an interesting project, we will try to channel that to the right faculty member. (MBA3 Career)

Although these individuals did not actively engage with FBL courses, they had a peripheral role in the learning process. At one school, the faculty lead said that he clearly saw career service professionals as an important partner whom he had sought out for program advice. He also said that at his school, career services professionals sometimes served as judges for student final project presentations:

The career management area has a very strong interest in these courses going well because they are specifically designed to help the students be what we call “day one” ready. There’s a feeling… that these kinds of courses can help the students be ready for their interviews, it helps them place well, it helps them perform well once they get there so they get to get an offer, they get promotions. It helps the school look good to recruiters. And so we have had a lot of interest and involvement from the career management area. The head of career management has provided a lot of very constructive advice and ideas for some of the ways in which we implement [FBL course name] and she and her team are actual participants as judges in some of our case competitions and some of our presentations. (MBA3 Professor)

At MBA5, career services professionals had no formal role in FBL although they trained 50 second-year MBA students to be peer coaches for the first-year MBAs. The training involved experiential learning and role-playing. This training exemplified this school’s embrace of action
learning in many facets of their MBAs’ experience. The student peer coaches also served as second-year coach advisors to teams for this school’s required FBL course.

5.1.7 Student Team Peer Advisors

In all programs, the student teams assigned roles among the team in order to complete the work on their FBL projects. For example, the team might designate one or more individuals to be responsible for collecting secondary data, or to serve as the primary client contact. In some programs, the student team coordination was a more formal process (MBA2, MBA3, and MBA5) than others. At MBA5, there were second year MBA student peer advisors assigned to each team. These advisors had participated in a coaching course conducted by the career services department. At MBA6, the professor offered an opportunity for peer learning between teams. In his course, if several teams that were working on a project in the same area such as brand loyalty programs they would meet and share what they had learned.

5.1.8 Information Technology Support Roles

The interview data did not provide many insights into the role of information technology (IT) support in FBL. All programs had information technology departments that assured the functioning of computing and media systems of the programs, but they appeared to play a utilitarian role. This could be attributed to the fact that FBL focused on active in-person, participatory teamwork. The programs acknowledged the important role of the information technology staff in supporting conferencing systems for virtual team meetings and making sure the technology worked when team members were traveling to international locations that did not have dependable online networking systems. Some respondents also mentioned maintaining online repositories of video for students to use as an extra resource (MBA1 and MBA4). In a few instances (MBA1, MBA2 and MBA4), the librarians made online guides (LibGuides) of
recommended secondary sources that catered to the research areas in the student projects. One respondent shared how her school liked to foster IT innovations:

Technology absolutely is a part of this. This is a school that likes to build things. They don’t do off the shelf. So they have a scheduling system that was home grown and it allows the students to go in and book their consultation with a librarian and they also use it to book their consultation with their coach – their emotional coach. And that technology is something that was built up over the years... It sends out automated emails. It allows us to put in our availability up front and they can go in and select the slots that they want. And they can cancel those slots, etcetera, etcetera. (MBA4 Librarian)

5.1.9 Alumni

Alumni played a role in FBL project pedagogy at all of the programs. Alumni were potential sources for project sponsors and could serve as student team advisors, either in a formal role at two programs as adjunct faculty or in an informal role, advising on certain aspects of the project, or providing industry knowledge to the student teams. Within the project process, very often an alumnus was the sponsor company contact for the student teams. At MBA4, the recent alumni who held a team advisor role were called alumni mentors. Alumni services departments, or external relations departments, were described as having a occasional role with FBL at some schools:

Our external relations and corporate relations also have a role because when you’re talking about field courses you have to have a client. And so the whole complicated issue of dealing externally outside the school with various types of organizations, corporations and so forth, some of whom are already partners with the school or the university, others are not. Some involve financial transactions, some are not. That’s very complicated. They have an indirect role and a very strong interest in promoting the program, but also a lot of interest in managing a coherent external outreach and corporate relations. (MBA3 Professor)

5.1.10 Business Librarians

This section provides details on intra-organizational relationships and how business librarians were supporting FBL at all 20 MBA programs, and information on the specifics of business librarian support of FBL at the six case study institutions. The data were collected
directly from 19 of the top 20 schools through an online survey with business librarians at the institutions. The complete results from this survey are located in Appendix E. Due to a computer processing error, the results from survey question four were incomplete and consequently, were not included in these results.

The survey data indicated that the number of business librarians that support FBL at the top 20 full-time MBA programs ranged from 1 to 11 business librarians. Table 5.1 describes the number of business librarians at each school that supports FBL in these MBA programs, the total number of full-time MBA students, and the schools’ public or private status. There was a large discrepancy in the ratio of librarians to students, with the most discrepancy at one school which had one business librarian to support an MBA class of over 500 students. In a number of large programs, support was provided by three or fewer librarians. Table 5.1 also shows that four of the institutions answered “yes” to having a formal role with FBL at their school and being directly involved in supporting experiential field-based learning projects. These four institutions were among the six case studies.

Table 5.1

<table>
<thead>
<tr>
<th># of MBAs (US News)</th>
<th># of librarians available to support MBAs</th>
<th>Librarians have a Formal Role with FBL?</th>
<th>FBL Required?</th>
<th>Public/Private Institution</th>
<th>Ratio of # of MBAs and # of librarians available to support FBL</th>
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The list in Table 5.2 is organized by schools in which the business librarians had a formal role with FBL followed by those that did not. This information is accompanied by the business library reporting structure, source of funding, and the location of the business library. There was no association between whether the business librarians had a formal role with FBL and their source of funding, reporting relationship, or location. In ten programs, the business librarians were located in the business library and in nine, within the main library. In one program, the library served both the business and another professional school. Subsequent research of these programs’ websites found that six of the 20 programs did not have business library departments. Instead, there were one or two librarians dedicated to a business focus.

Table 5.2

*General Characteristics of Top 20 US FT MBA and Business Librarian Support*

<table>
<thead>
<tr>
<th>FBL Req.</th>
<th># of MBAs (US News)</th>
<th>Public/Private</th>
<th># of librarians available to support MBAs</th>
<th>Librarian Formal Role with FBL?</th>
<th>Business Librarian Reporting</th>
<th>Business Librarian Location</th>
<th>Business Librarian Funding</th>
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</table>
In more than half of the programs, funding for the business library came from the central library or a combination of the business school and the central library. In a few cases in which the library was located in the business school, the funding came from the central library. In terms of reporting relationships, the majority of the business librarians reported to the central library and not the business school.

Many business librarians with their own library have experienced their spaces shrinking and their service focus changing as a result of most research resources used by business schools being available online (Long, 2014). These issues of shifting space priorities and focusing on service and instruction were cited by three of the business librarians in the study. At MBA2, the librarians were consolidating from two floors to one. At another school, the department name had recently been changed from “Library” to “Library Services” which emphasized that the role of librarians was no longer about facilitating a space but offering expertise and a service instead (MBA5 Librarian).

In some programs, the business library was also supporting another subject area such as engineering. As one librarian said,

There’s three business librarians, but you also then have three engineering librarians... [and some of their time is allocated differently]...For example, in [library staff member name] case he’s at [the] Library 60% of his time and 40% of his time is in digital technologies group. So he’s all in when he’s in that 60%, but if the students need him on a Thursday or a Friday he’s not here. (MBA2 Librarian)
How business librarians at the top 20 full-time U.S. MBA programs work with FBL.

One business librarian commented that the student questions were becoming more complex and that this provided an opportunity for instructing the MBAs on research techniques: “….The questions that are coming at us are harder and more difficult. And I think that’s where instead a lot of people will throw up the flag of -- we need to instruct them” (MBA5 Librarian). This same librarian said that the increasing demand for FBL project courses in the core curriculum of the full-time MBA program as well as other programs resulted in more business librarian positions on his team. The librarian said that beyond their support for the full-time MBA FBL project course teams in the spring, there were also other FBL project teams from other programs that were supported by the librarians:

We also have programs in the summer. We have other programs that last throughout winter term, the weekend MBA program is during that time as well. So, there’s very few times in the year where we don’t have teams… what we’ve been able to do over the last couple years is basically try to keep up with the increased demand. (MBA5 Librarian)

This same school that had seen so an increase in demand as a result of their need to support FBL project courses was also a business library space that had substantially reduced its size. This change to a smaller space did not include a reduction in business librarians. The librarian credited their extra activities in proactively reaching out, and being heavily engaged with FBL courses and other “non-traditional assignments” in the business school as factors that had “saved” them:

We’ve actually over the past -- let’s say 9, 10 years since I’ve been [here] … focused on doing more with the community by really being proactive, by being service orientated. I’m basically grabbing non-traditional assignments, and I think in the end you can make the argument that it served us very well because when we went through last year the process of actually removing all the books in the library and removing all the management of the space in the library, that the first thing they didn’t say was, “Well, why do you need all these people around if you’re not managing a print collection?”…Part of it was taking on new service opportunities and moving people around…I think service has been the element that’s really saved us and saved the staff
In the online survey results one way almost all these librarians indicated they provided support to FBL project courses was through standard reference service (89%). Other common ways the librarians provided support was creating web guides with lists of recommended secondary sources (47%) and providing optional workshops on research as part of experiential field-based learning projects support (32%). A total of 42% of the librarians indicated that there was no standard pattern to when they met with MBA students, while 32% indicated that they typically met with them repeatedly throughout the length of the FBL project. A subsequent question provided additional context with librarians at 8 of the 19 schools stating that they often did meet with the whole team even if they were not formally engaged with FBL and assigned to a team.

In measuring the librarians’ performance and formal job responsibilities, only 21% of the librarians indicated that their work supporting FBL was specifically included in their performance reviews, while only 16% indicated that their job responsibilities had changed to accommodate FBL course support. The survey also asked if positions had been added to their program to support information gathering and analysis for FBL projects. Six of the respondents said “yes” to this question, but most of the additional positions were just librarians from other subject areas such as forestry or engineering. A non-librarian position listed was “Director of Startup Consulting Program.” The survey only asked for a listing of job titles and not a description of job responsibilities.

**Information related functions and skills MBAs could develop with FBL projects.**

Questions 14 and 15 in the business librarian survey referenced the list of information related functions and skills in Table 5.3. These are the capabilities in gathering and analyzing
information that can be developed by students through experiential field-based learning projects.

The research supporting this list of information functions MBAs can develop with FBL projects is derived from the five Business Intelligence Briefs (Cullen & Noonan, 2014a-e).

Table 5.3

Information Related Functions and Skills

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking a problem apart</td>
<td>Ability to break apart a problem effectively to identify the questions that will need to be</td>
</tr>
<tr>
<td></td>
<td>answered and sources of information where answers to those questions might be.</td>
</tr>
<tr>
<td>Confronting information gaps</td>
<td>Approach what cannot be found constructively in terms of possible alternative ways to answer</td>
</tr>
<tr>
<td></td>
<td>the question. Understand the challenges and limitations in gathering information to support the</td>
</tr>
<tr>
<td></td>
<td>decision making process to solve real life business issues.</td>
</tr>
<tr>
<td>Contextual Intelligence</td>
<td>Identify facts connected with the past and/or present situation.</td>
</tr>
<tr>
<td>Creative Intelligence</td>
<td>Use information gathered to consider or predict “what could be.”</td>
</tr>
<tr>
<td>Problem Finding</td>
<td>Use information gathered to explore potential risks.</td>
</tr>
<tr>
<td>Integrative Thinking</td>
<td>Consider multiple options from diverse sources and effectively synthesizing information.</td>
</tr>
<tr>
<td>Time management and resource allocation</td>
<td>Implement an effective plan for doing and delivering the work.</td>
</tr>
<tr>
<td>Balanced use of types of evidence</td>
<td>Effectively balance the use of primary (e.g. interviews, customer surveys, internal company</td>
</tr>
<tr>
<td></td>
<td>reports) vs. secondary information sources.</td>
</tr>
<tr>
<td>Credibility</td>
<td>Assess factors regarding the creators of information and their motivations to determine its</td>
</tr>
<tr>
<td></td>
<td>credibility.</td>
</tr>
<tr>
<td>Evidential Responsibility</td>
<td>Document referenced sources and present information that clearly communicates and demonstrates</td>
</tr>
<tr>
<td></td>
<td>authority and credentials concerning a point of view.</td>
</tr>
<tr>
<td>Copyright</td>
<td>Appreciate issues around copyright and fair use in the proper use of information.</td>
</tr>
</tbody>
</table>

Survey Question 14 posed the question: “When you are working with students on field-based projects how often do you help them with these information functions?” These data were collected to determine how many business librarians had more of a proactive instructional role through their support of these varied information related functions and skills. In examining the calculated statistical means of the ranked responses to this question with the listed information functions in Table 5.3, “Confronting Information Gaps” and “Credibility” were highly ranked by most respondents. The four areas ranked the lowest with less or no involvement were “Creative Intelligence,” “Problem Finding,” “Time management and resource allocation” and “Balanced use of primary and secondary types of evidence.” This suggested areas of information skills that
could be developed through FBL where the expertise of librarians was not typically being utilized.

Question 15 asked which roles provided support with these information functions and skills. The other roles were the faculty members advising projects, individuals at the project's company or sponsor organization, student project team members, and other support roles. When comparing these high and low mean rankings with the responses from Survey Question 14 on which roles the business librarians identified as providing support for the list of information functions, it was notable who the librarians saw as supporting the acquisition of the skills that they felt they were less able to bolster. Ranked the lowest with less or no involvement were: “Creative Intelligence,” “Problem Finding,” “Time management and resource allocation” and “Balanced use of primary and secondary types of evidence.” These identified areas of information skills that could be developed through FBL where the expertise of librarians was not typically being applied. For these functions and skills, business librarians saw advising faculty or student team members as more likely to provide this guidance. For functions where the business librarians on average felt they did tend to offer support, the data pointed to potential allies who librarians could partner with in providing this assistance.

There was also evidence from the survey comments that some librarians felt providing assistance with these information related functions and skills did not pertain to their role. A librarian from one institution responded that these questions could not be answered because their librarians “are not involved in the program enough to know how every student gets assistance.” Another respondent was uncertain about responding because she was “unclear what defines an experiential field-based learning project” and did not see how these categories related to “a
librarian’s usual role.” The response rate for survey questions 14 and 15 was 18 rather than 19 for the remainder of the online survey.

The interviews with the business librarians in the six case studies provided more detail on how they were supporting FBL at their schools. In one program, the business librarians had a very close partnership with the FBL course. A professor at that school provided details on the varied ways their expertise contributed to the program:

If we think about the core of what happens in a field project, there has to be some actual fact finding. There has to be asking good questions and finding good answers and then making sense of that. …Not only is the library traditionally the source of a lot of materials that can be the raw material for that, but that’s also the locus of where a lot of experts are on how one should do that, how one might learn a process of really careful inquiry and careful evaluation of an exploration and evaluation of evidence. And so with their strong interest and willingness to take some risks and explore we have brought the library in much more closely in this process…So they play a very important integrated role in developing the ideas, contributing ideas and framework to what [FBL course name] is about. Using all of those ideas, they play instruction roles, they play evaluative roles, and of course they’re a great counsel. They give us the feedback of what the students are and are not getting and we share our frustrations with each other about what we can do and what’s the most efficient way to try to move them forward. (MBA3 Professor)

At MBA4, there were three business librarians who supported students on these FBL projects. A librarian was assigned to each team, which was required to meet with that librarian early in their project to review relevant resources. The meeting took place in a conference room in the library where the librarian during the session referenced an online guide or “LibGuide” that the library had compiled specifically for the team’s project. The professor called these “online platforms” (MBA4 Professor). This business library had a coordinator who was the library’s liaison with this core FBL course. The various individuals in this role over the years had established how the business librarians worked with the course:

So there’s one person who is considered the -- and has the title of -- has the role of coordinator of basically administrative support. So they’re the official liaison from the library to the program for this field study. And that means that they are checking in,
they’re writing some of the publicity. They’re working with the program office to know
how many teams are there. What are the projects? And who are the people on the
different team, etc., etc. So that’s a very administrative role. .. The administrative
coordinator on the library side -- she does a quick kind of overview with the students
during -- there’s something called student launch. So there are days during the fall where
the students come together and they have all kinds of different lectures from different
components of the field study program. The librarian gets a short piece of that. So it’s
more reinforcing what they heard already from orientation and what they know. (MBA4
Librarian)

In this program, the librarian also mentioned that after the librarians met initially with
their teams, they typically returned for help with their research again. The professor at this
program felt it was important that student teams were exposed to the business librarians and their
support with secondary research very early in the learning process:

The quality of the research is quite good. The secondary research is really supported by a
very actively involved … Business Center Library at [business school name]. They’re
very actively involved in the very beginning. So they develop online platforms for each
team. They know what the scope and industry is of each team’s project by the middle of
August, when school starts, and they start setting up these online platforms where there
are direct links to industry and segment and competitor data, environmental data, industry
associations, trade events, government organizations, demographic databases, all that sort
of stuff. So that then the student teams, once they’re formed and they’re matched up with
a particular company and particular project, then they meet with the librarians and the
librarian spends time with each individual team taking them through the platform that
they’ve already set up, which really accelerates the secondary research that the teams do.
So it’s very good, very effective. (MBA4 Professor)

At MBA5, business librarians were also assigned to each team and had a formal role. In
total, 5.5 business librarians supported this required FBL course. Business librarians were very
much involved with course development. The librarians grouped the teams by similar topics to
managing the scope of work. Typically, each librarian supported 14 to 18 teams and would try to
meet with all their teams the first week of the project. The business library director also
supported some teams. After the initial consultation, teams scheduled additional meetings as
needed. Sometimes, the projects did not require additional secondary research support and the
librarians would not hear from those teams again. According to the business librarian
interviewed at this school, about 25% of teams needed no extra support beyond the first meeting, 25% needed a high level of support and interacted frequently with the librarian, and the rest were somewhere in between.

In another program, six librarians supported FBL teams with one librarian assigned per team. Some librarians supported twelve teams. To determine team assignments, one librarian would review all of the FBL course’s project descriptions and then assign teams to different librarians. As one librarian said,

I will read every single project team and I am responsible for divvying them up among the librarians…Some of us are only here…part-time so I try to give them -- they’ll get less projects or I’ll try to give them projects that are all in the same industry so that they don’t have to try to find the information across a lot of industries. (MBA2 Librarians)

Teams that were not required to meet with their assigned librarian did not always meet with them. The faculty lead at one school was unconcerned that some teams did not meet with a librarian. He felt that:

Overall role of the librarians is minor if not unimportant…I would say most [teams] don’t use their librarian…But there are times when they really, really, really need the librarian and the students are almost completely uninformed about what a modern librarian can do. (MBA2 Professor).

He then continued that a key part of FBL was to learn how to work with expertise:

It’s again, its access to expertise. For me, the point is not that everyone should go to the library and listen to a lecture on databases. I mean…they’re not going to learn anything from that. But they should be thinking, is there anything there that I might need? Can I, is it worth half an hour of my time going and finding out what they might have? Just as it is with the survey expertise and the interview expertise, and so on. (MBA2 Professor).

At MBA1, the librarians were not formally connected to FBL, and simply gave a half-hour presentation in class when requested. At this school, librarians often did not meet with MBAs who were taking the FBL project courses. Any consultations were usually with just one member of the team. However, the business librarians almost always made an online guide
called a LibGuide that they included in the school’s course management system; this included recommended resources to use for research on these projects. As one librarian stated:

Once the research guide goes into the Canvas site, they’re kind of happy and if they get stuck they come to us” (MBA1 Librarian). The librarian at this program said that she estimated that librarians met with less than 25% of the teams working on FBL projects. She added that at her program it was ‘not part of the MBA culture to ask a librarian.’ (MBA1 Librarian)

Librarians did not receive information in advance on the teams in the FBL courses. Instead, the service was more dependent on a “self-service” model where the librarian created online guides of the available business research tools that students could reference. As a further example, the librarian mentioned that a recent important initiative of her business library department was linking an online “Business Library Starter Guide” to all courses in the school’s course management system.

At MBA6, librarians did not have a formal role in their primary FBL elective course offering. Teams were not assigned a librarian or required to meet with one. However, the faculty lead recommended that teams meet with a librarian and highly valued the expertise the librarians provided the students. The faculty member felt that it was the students’ responsibility to reach out to the librarians. The librarian at this program said that they were not formally involved in FBL project courses and did not do any formal outreach. This was attributed to capacity issues. There were five business librarians on her team and she felt she did not have enough staff to partner with each student team and at the same time fulfill all of her area’s other service obligations. They were just reacting to on-demand to requests and were focused on primarily supporting faculty research over student research. She also mentioned that with these projects, she felt “uncomfortable with what students may or may not be doing with our licensed resources” when they were working with a real outside business. This also discouraged her team
from pursuing outreach. This was particularly a problem with their global FBL elective course because the teams included students from other schools who fell outside of her institution’s licensed coverage.

**Expertise and level of engagement.** In all programs, the business librarians were appreciated for the expertise they offered their institutions. While not all respondents felt they needed to be highly engaged with FBL projects and meet with all student teams, some professors indicated that all student teams needed to meet with a business librarian for advice about research. In the four programs where the business librarians provided active formal support for FBL, everyone -- including the manager of the library-- took part in supporting these student teams. In three of the four programs, the business librarians were responding to a faculty member’s directive. Only at one program were business librarians working side-by-side with faculty in designing how to present and discuss the information component to students. The business librarian from that program described how they were very engaged with FBL curriculum. She said that they had assigned the term “business intelligence” to all the information gathering and librarian related components of the course. These included a group of business information briefs written by the librarians and faculty that served as part of the text for this course:

In terms of actually looking at what we do … We teach what we call Business Intelligence Workshops. They’re about an hour and a half. They usually are taught just when the faculty is ready to kick off the students beginning their secondary research, and so we’ll develop that class …around what their live client project is so that there’s a real component that makes sense to them. We also meet with -- in many cases the students are required to meet with us -- meet with one business librarian at some point in the semester. That’s still a little bit uneven but I think what we’re seeing that the trend is that what we are getting more and more of the students to meet with us later if not sooner. We also do sit in on the client presentations when the client first comes in to meet the students and kick off their presentation typically they’ll spend 15 or 20 minutes talking about the problem, and then they’ll do a Q and A with the students. So we sit on in on that. We will have already had advance notice from the faculty as to who the client
is and what the problem is so that we’ve, offline, before the client even comes in the classroom, we’re already thinking about it. And in most cases we’re developing a pretty substantial recommended resource guide… and then we may pop in, you know, throughout the semester into the class. Some of the classes, the faculty will actually have the client come in and have meetings with the students so we sit in on those… And then at the end the students each do around a -- they’ve had about 20 minutes to present and we sit in on those and we participate as judges. (MBA3 Librarian)

**Information gathering components of FBL projects.** In all the programs, students were expected to collect some sort of primary or secondary data. Primary information gathering typically consisted of surveys or interviews. As one professor said, "….Research is a pretty broad term. We have established in the syllabus and a principle, which is that every project must develop, to some degree, some original information...But surveys and interviews are predominant" (MBA2 Professor). For this professor, gathering secondary data was seen as possibly relevant for some of these projects, although he stated that primary information gathering from his perspective was a more important objective in FBL:

I think teaching them to do interviews is a huge thing... I mean setting this up and then doing this and then analyzing the results in a creative way I think is much harder than analyzing a survey… [then] having to put it all together in a presentation and being at least somewhat held feet to the fire about the logic of that presentation, I think does give them some good training in using information taken broadly to tell a story that is logical and credible and not based too much on business stereotypes. (MBA2 Professor)

The faculty leads at other programs had a different perspective that viewed practice in both primary and secondary data gathering as an important component of this instruction:

Sometimes it’s survey work, sometimes it’s interview work, but a lot of it does involve what we might call library research where you’ve really got to go into databases and news sources and try to come up with answers to the questions that are answerable in that way. And so depending on the situation it’s a mixture of a variety of different kinds of primary, secondary types of sources. (MBA3 Professor)

A faculty member at another program also shared that the information gathering for FBL projects could be from a combination of primary as well as secondary sources. The professor said:
They do all kinds of research ...So it could be interviews, it can be surveys, it can be simulations... They’ve done decision analytic tools where they hand people tools and it’s like a straight up analytic model ... They will do secondary analyses of all kinds of data that they can get and that’s where the library comes [in]. (MBA5 Professor)

The respondents varied in how intensive they felt librarian involvement should be even where the librarians had a formal role and were each assigned to teams. The professor interviewed at MBA2 said he did not think most projects required business librarian support:

I would say most teams don’t use their librarian…and they’re probably right in that. You know, they’re decent at surfing the web to get that kind of background information. It’s not critical to their projects. They don’t really have to know a whole lot about the company or the industry because the projects are, have to be pretty focused for nine weeks, part time. (MBA2 Professor)

This was in contrast to a respondent from a different school who shared that "in our case all advisors are expecting every team to do some amount of secondary research" (MBA4 Librarian).

**MBA students understanding of business librarian support available.** A number of respondents indicated that they did not think most of the MBAs knew how to gather information very well. One respondent felt that “students don’t understand how to use the librarians” (MBA2 Career2). She continued that they did not know what they did not know, were more comfortable with searching with Google, and wanted information handed to them. Another summed up his view by saying that "….our students are not PhD students. You know, they’re not interested in research... they really have no, well, a very unsophisticated view of data quality" (MBA2 Professor).

Another respondent felt that the situation had deteriorated over the years and students had a false sense of complacency that now on the internet all information was easy to find. She shared that she recently had:

….encountered some students here who I think have the least appreciation of how to do research that I ever encountered. And I think it’s just because time is passing. In 2015 you’ve got different students than you would have had in 2010 for example. I think it
seems easier access to our resources -- super simple. You don’t need to have the intermediary of the librarian as much. (MBA4 Librarian)

Several interviewees echoed this respondent’s comments that "students are almost completely uninformed about what a modern librarian can do" (MBA2 Professor). Another faculty member described the help business librarians provided student teams and how it facilitated their information gathering. However, he lamented that the only reason students did not make use of librarians’ assistance was because “they’re lazy”:

Usually, the librarians are very helpful, students will come back with all these reports, they’ll have all this data. I mean, very helpful. I mean, teams that don’t follow that advice generally pay, because, they either find that they don’t find the material, or they spend a lot more time finding it. And if they had just gone over and asked, it would have been easy. And here, they can just email, and they’ll just send them stuff through by email, I mean, it’s so easy...Students are just lazy, that’s why [they don’t]. That’s the only reason why, they’re just lazy. (MBA6 Professor)

In a different program, the professor stated that he felt students were actually "eager consumers of library resources and then the librarians seem to like tracking down crazy stuff about the market for bulldozers in Pakistan or something" (MBA5 Professor). In some cases, respondents indicated that students could have unrealistic expectations of librarian support:

Let’s say I’m doing work on coffee shops, OK? There’s a ton of stuff on that. And my buddy is doing work on a new medical device that is going to help with stomach cancer. There’s not a lot on that. And yet, they look at this as being, ‘Oh, your librarian got a lot, my librarian didn’t do squat.’ (MBA5 Librarian)

Following on this idea, another business librarian stated how important the personal engagement of the librarian working with students to identify information was in demonstrating how their expertise added value to this work:

It’s that type of working with them and trying to understand what the goal is here and where we’re going to be able to give them information or help them with research data and where we can’t…. I think through these field study encounters when you meet with a team and you show this is what the librarian is able to do for you it opens up their eyes in a way that they have no idea that this is the sort of thing that an academic business library can offer them. And it’s not something that’s necessarily even promoted that much,
certainly not here, as part of the package of this is what you’re going to get. (MBA4 Librarian)

Proper use of databases and appreciation of copyright and contract restrictions.

One concern cited in all of the business librarian interviews was that some MBAs did not understand the limitations on the use of the databases in the library, and that these databases were only for school or personal non-paid professional development work, and for example, not for use at paid internships. This comment typifies comments about these concerns:

It’s a huge, huge problem...but understanding that this information is just not a commodity that anybody can use and do whatever they want with. There are responsibilities, there are agreements, there’s licensing, there’s laws, there’s publishers who will not hesitate to sue organizations. And they need to take that seriously. (MBA3 Librarian)

As a way to contend with this, some libraries posted information on their website about proper database use at their institution:

This is a matter of very large concern for us and we have really ratcheted up -- although we always had them sign a form when they came in... The past couple of years we have really ratcheted up our messaging -- content on our website, a pdf document. And then, for the full-time program... -- the dean of that program ...does sort of a kick off before our internship town hall and we now participate in that. (MBA3 Librarian)

In one program, the central library administration would not permit posting a statement on its website about the proper use of their databases and complying with their licensing agreements:

It would be nice if we could, and we’ve talked about this, is to have a statement right on our research guide...and when we ran it against library administration they said no, we could not put that up there. Which confuses me. I don’t know why we couldn’t put it on there and make it more explicit that these are for academic use only. (MBA2 Librarians)

In one business library, the proper use of databases was also an issue because the school had an elective FBL project course in which MBA students were working with students from other schools. The business library’s database contracts explicitly stated that only students, staff, and faculty from this school could use these databases. The librarian, who was concerned
about potential usage violations with this type of project learning, said, “….I feel uncomfortable with what students may or may not be doing with our licensed resource,” she said (MBA6 Librarian). In this program, the respondent stated that this issue had played a factor in their not pursuing more aggressive outreach with FBL courses.

**Ways librarians provide student team projects support.** In the four programs where librarians were assigned to student teams, they had either one individual with the responsibility for matching librarians with teams or the decision was made together as a group. In both scenarios, there was an attempt to balance out projects that were likely to be more vs. less research intensive, as well as grouping by topic when allocating them to each librarian:

Occasionally by the luck of the draw, we’ll actually put in requests internally as to what teams we want. We used to have like a fantasy draft, but now we’ve been doing it -- we’ve been bunching it more together. A lot of people really don’t care. But what we try to do is if there’s three teams from Latin American Airlines, for example, I took all three because it could be a little easier down the road to have something more cohesive, and then I could get information that could be applicable for three. But there’s -- you have a gut feeling as to what might be busy, but it may or may not be the case. (MBA5 Librarian)

The number of student teams supported in the FBL courses by business librarians ranged from 33 to 80 teams. Table 5.4 presents the data on the number of teams in the FBL courses in 2015 when the interviews for this dissertation took place. These represent the typical number of team at these programs. The required FBL courses at these programs are presented in this table except for MBA6, where information on the main FBL elective course is provided. Most of the schools where librarians were assigned to teams also required that they met at least once with their librarian. The librarian at MBA4 described how her group approached this process:

So we have around 65 teams right now because it’s, again, every student who’s in the full-time program is in this...So again every team -- it’s usually around five people -- is required to do this…This is basically the equivalent of your thesis. You get an advisor. You get a support from the program and you get a librarian. I have a small team so there’s three of us that actually do librarian consultations. (MBA4 Librarian)
Table 5.4

*Number of Projects in FBL Course and Support from Librarians*

<table>
<thead>
<tr>
<th></th>
<th>MBA1 (no main FBL course – various electives)</th>
<th>MBA2 (Required FBL course)</th>
<th>MBA3 (Required FBL course)</th>
<th>MBA4 (Required FBL course)</th>
<th>MBA5 (Required FBL course)</th>
<th>MBA6 (Main Elective FBL course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#of Project Teams</td>
<td>N/A</td>
<td>56</td>
<td>33</td>
<td>65</td>
<td>80</td>
<td>35</td>
</tr>
<tr>
<td>#of Business Librarians available to support them</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>5.5</td>
<td>6</td>
</tr>
<tr>
<td>Are Business Librarians assigned to teams?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are teams required to meet with a business librarian?</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Striving for a consistent FBL approach in which every student had an equal quality experience was cited by many of the librarian respondents in this study. An important factor was the issue of timing and when to best introduce and subsequently provide librarian support for student teams. This referred to where librarian support was placed in the timeline of the FBL course:

So they changed the scheduling over the last couple of years. Wednesday mornings now have kind of been anointed as this is when they’re going to be working on this. So when we’re offering consultations we’re really trying to target Wednesday mornings because there’s an expectation that the students will be on campus...And then we have other times of the week that we think are good times to be available for them when they’re not typically in classes. So it’s really been, I think, around let’s make sure that our scheduling and what our expectations are for when they’re available are kind of in sync. That sounds minor but it’s actually a big deal in a city like this where it’s just hard for people to get around sometimes. (MBA4 Librarian)

Consistency of service was a concern cited by one of the respondents who admitted that the experience of teams with different librarians was not always the same. The librarians said, “….I think the relationship that the librarian has with the students can be uneven, if you will. That it depends on sort of the personality of the librarian, the willingness to engage, the enthusiasm for the work” (MBA2 Librarians). Another challenge was that the librarians who
supported student teams did not share information among themselves very well. This was something she was hoping to change:

I won’t get into some organizational challenges that also I’ve inherited. But how things are kind of done here. There hasn’t been a lot of sharing amongst the librarians in terms their best practices and how they interact with the teams and there’s been zero assessments. (MBA4 Librarian)

At four of the six case study institutions, the librarians felt it was important for the librarian to meet at least once with their student teams. In only three of these four cases did the professor share this opinion. One librarian said, "….So, that’s really the most important thing. Meeting with teams, it’s pretty effective to do that, just to even get a face, and let them see who you are” (MBA5 Librarian). Another challenge was that while the librarians were assigned and working with the teams, they were not working with the faculty advisors for those teams. This was something the business librarian manager at the MBA4 program was trying to change.

In terms of roles, one business librarian shared that they were not referred to as librarians in the FBL project courses. He reported:

We’re considered the secondary research consultants. The primary research consultants are -- there are a few people. …a faculty member here… and she’ll work with students who are looking at creating some primary research -- they want to interview people, customers, potential customers, et cetera. (MBA5 Librarian)

One respondent shared that at times, her role had expanded to other areas of support for these project teams:

I’ll get asked questions when I’m working with teams that I think really fall into, ‘You need to go talk to your coach about this.’ They’ll have issues. I’ll see them when I’m meeting with them where they’re not getting along or they need help figuring out how do I divvy up the work or how do I do a piece of it. I kind of end up being in the therapy role. (MBA4 Librarian)
Deeper integration of the business librarians with FBL. One program had taken their partnership with FBL much further. A key factor was that learning effective information gathering should not appear only once in the course but should repeated over time:

When it’s reinforced in that way in other core and elective courses, which it can be, we will go much further much faster. Because nobody gets anything in business school the first time around. Nobody gets regression the first time through. It’s the subsequent reinforcement and application and also the validation from everyone else that this is an important part of thinking well and doing good work, that’s where it really is going to connect… One of the portfolio skills that can be helped the most will be in the research area…So for example, instead of the one-off beginning of the semester, here’s the library, here’s our databases, look forward to seeing you, and then just dealing with people as they come running in ad hoc, we have built in more focused time sensitive and structured training and practice sessions into the course. So within the [FBL course name] curricula across full-time and evening programs there are required sessions where the students in the midpoint of their first semester go through library workshops to get additional instruction. And so the librarians are actually playing the roles of instructors. They’ve got frameworks, they’ve got processes, they’ve got tasks that are designed to integrate with what the students are doing in the [FBL course name] class. The librarians attend the [FBL course name] sessions, they know the material well, and so they and their team can reflect back to the students the concepts and the process steps and even the language that they’re getting in [FBL course name] to integrate this and to reinforce this. They play an essential role in the evaluation of the materials. They provide a rubric and a way of thinking about what quality research looks like. They attend the presentations, they review the decks, and they provide scores that become part of the actual evaluative grades of the students as well as qualitative feedback. (MBA3 Professor)

The librarian at this school also mentioned that she felt that an advantage of their approach was that they made information gathering a required outcome. This was because:

We know at the end of the day that, with the exception of a handful of rare students, none of the students are really going to take the research component seriously unless they’re being forced to do it, required to do it… that if the students are truly going to get all -- everything that they’re learning in [FBL course name], including the research component, it has to be iterative and it has to be reinforced throughout all of their learning experiences at the school. (MBA3 Librarian)

At MBA4, while their support of FBL was exclusively through supporting student teams with consultations, the librarian alluded to this need to be more "programmatic" and integrated with the MBA program which she referred to as “clients” of the librarians:
I invited all of the program managers to meet with the librarians for them to learn for the first time ever what it is we do during these consultations and what it is we do as we work with the teams month after month after month when they come back for help. They had no idea... So I say that’s been a change in terms of trying to make this more programmatic and to have our clients understand just as we’re their clients in a sense. (MBA4 Librarian)

When the faculty member described the role of the business librarians at his school, he said that “they’re fully respected members of the team” (MBA5 Professor). This suggested that in this program, the librarians had a more integrated role just by designating them as co-members of the “team.”

**Positioning of traditional reference support from business librarians.** The two business libraries that had chosen a more traditional level of support for these FBL projects with a staffed reference desk provided contrasting reasons for offering support in this way. In one instance, the librarian talked about their investing a fair amount of time creating online LibGuides and consequently assuming the reason they did not hear more from students was because the students found using those guides sufficient. Therefore, she saw no need to advocate for more support beyond the half hour resource presentation she or her business librarian colleagues might be invited to give for an FBL class:

> I don’t think it has been too time consuming for us because it’s not a required course and not every student will be involved in it. Usually we’ll -- we won’t meet with the entire group and we’ll only meet with them once or twice depending on their needs for the semester. Probably designing the research guide takes more time. (MBA1 Librarian)

When business students did seek assistance from business librarians at this school, she continued that:

> I won’t talk to the entire team. They’ll usually portion out the work. So if they need additional help after the presentation they’ll pick someone to come talk to the librarians. They wouldn’t all come together…But I don’t actively reach out to the teams. They know if they need help they’ll come to us. (MBA1 Librarian)
The business librarian at the other program (MBA6) stated that ideally she would like to pursue more engagement with FBL project course teams and an “embedded approach,” but she just did not see it as feasible with the number of existing staff: "We are providing office hours in the main building... we are in office hours on a daily basis so kind of a remote reference services [sic]. We are also providing more extensive chat services” (MBA6 Librarian). She then provided more details on why her team did not have the capacity to provide more engaged FBL support given their other established reference obligations:

We’re not set up staffing wise, I mean, to be able to support this fully or to support everything that is going on-- which I suppose -- we don’t have to support everything that was going on. We could certainly make decisions about that. But how to make those decisions is an issue as well. But yeah, we basically -- I wouldn’t be able to have anybody get embedded in the way that they are at -- at other places because they really -- they wouldn’t be able to do -- I mean, or my impression of how that works on some of these other project teams is that they are -- they’re truly -- there’s a great deal of time that the information professional is taking to be part -- to be really part of those teams. And we just wouldn’t be able to do anything else except that and I just -- I’m not able to support that...I mean we also have an undergraduate program for example. I mean, we have 2,600 undergraduate students so it’s not just the MBAs that we are supporting. We are doing a lot of responses to -- I mean, we get a lot of ad hoc questions -- you know, not just from these field experience people, but we do get many regular questions each day from students. We are trying to support our -- faculty research as well and …that support for faculty research would be a priority over student research…. So those type of things - - not anything particularly unusual, I guess. It’s just a -- a quantity problem. (MBA6 Librarian)

**Online resource guides.** Four of the six business librarians spoke about the web-based resource guides they created specifically tailored toward the research being done by the student teams on FBL projects. The platform format used for these at three institutions was called “LibGuides.” This references a content management system for creating online guides that many libraries use that are sold by a company called Springshare (Springshare, 2016). Consequently, in several interviews, the business librarians described their online guides as “LibGuides”: "I’ve required every librarian to create a LibGuide that is tailored to that particular project so then
that’s what we’re teaching from when we’re meeting with them...So every team gets a LibGuide.

There’s a certain template that we use for that for the most part” (MBA4 Librarian).

One librarian felt these guides might be a more effective means to communicate with students rather than the team meetings:

I don’t know if it’s part of that MBA culture to actually think to go talk to a librarian. It’s something you really have to work at and push. This year we got a link to our MBA research guide put into Canvas. Every single student sees that guide. And they’ve actually been using it so I feel like they want to do their own work and they only come when they’re stuck. (MBA1 Librarian)

This librarian mentioned that many of the student teams working on FBL projects at her school did not ask for help and attributed this to one of two factors: “They think they know everything. Or they have the research guide and the resources aren’t that hard to use” (MBA1 Librarian). The business librarian at another program spoke about their resource guides that support FBL project work as more “robust” and informative than typical LibGuides:

So these are pretty substantial and these are developed to mitigate their wasting too much time trying to figure out where to begin or how to move through the research process. So they’re very robust. They’re very, very, very targeted to the client project and I think that one of the things that distinguishes these is unlike what you typically see in LibGuides where you’ll just have a series of links and then maybe a one sentence descriptor of the resource -- we are really introducing each individual source to the students relative to their client project and the kind of information and the kind of data they want. So even if they just look at the guide they’re already getting layers of the beginning of understanding about how complex and rich these resources are. (MBA3 Librarian)

**Advocates for the librarians in the FBL partnership.** Many interviews addressed how the roles of faculty, career service professionals, and FBL project team advisors could play an important role as champions of the expertise the librarians offered to students. In one interview, the faculty member spoke about recommending to teams that they meet with a librarian and how he valued the expertise the librarians could provide the students; yet he left the decision to them to reach out to the librarians (MBA6). In another interview the librarians said
that some faculty insisted that students needed to go to speak to the librarians and others were less adamant. When this support came from the faculty advisor as “have you gone to ask the librarian about this?” (MBA2 Librarians), students were more likely to seek out assistance from librarians. Most of the respondents felt that such advocacy encouraged MBAs to be more inclined to work with business librarians. One librarian spoke about being included in faculty-led team meetings run by more proactive “librarian champion faculty” as a way to become more familiar with a team’s project. This librarian believed that being present at these meetings had helped reinforce the research support librarians could provide for the student projects:

Oftentimes the project description that we get, by the time the students get together with their advisors, it’s changed and we are not informed of that change. So we might do a lot of work that’s missing the mark. So it really was important for me to be involved in a couple of these where I could hear what the students are hearing from the advisors and then I could provide them with better information, more targeted and timely. It was very helpful…I think one of the other outcomes of having us there is that the students see that we have a seat at the table, that they see how the faculty treats and believes that we are part of the team. So I think it just instills in the students that we’re important and that they need to come and use us. (MBA2 Librarians)

A career services professional said that she did not just advise students to see the business librarians; she would detail the steps that students needed to take and how the librarian could help:

They really expect things to be handed to them. So sometimes in order to take initiative you’ve got to actually outline how to do it. OK, these are the steps you need to take and these are the people that can help you. If it’s not easy they don’t necessarily do it. (MBA2 Career2)

5.2 Analysis of Roles

5.2.1 Positioning of Roles Supporting FBL

The roles of the respondents in the six case study institutions and their positioning with FBL were either proactive or more reactive in character. Spitzmuller and Van Dyne (2013), citing the research of Parker and Collins (2010), define proactive vs. reactive actions as
“proactive behaviors emphasize the notion of foresight where an individual initiates actions in anticipation of future outcomes. Moreover, proactive behaviors emphasize taking control or causing change. By contrast, reactive behaviors do not depend on intentionality and foresight. Instead, they occur in response to the situation or incident” (p. 562). In the context of this research, this means that roles that were actively engaged with the FBL course vs. those that provided only support when students or faculty in the course requested. See Table 5.5 for a list of respondents in these categories. The designation of “informal” indicates that the respondent said they did not have a formal role working with the student teams in FBL courses.

Table 5.5

<table>
<thead>
<tr>
<th>Reactive (all informal)</th>
<th>Somewhere in between</th>
<th>Proactive (all formal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA1 Librarian</td>
<td>MBA2 Librarians</td>
<td>MBA2 Professor</td>
</tr>
<tr>
<td>MBA1 Career</td>
<td>MBA2 Career</td>
<td>MBA3 Professor</td>
</tr>
<tr>
<td>MBA3 Career</td>
<td>MBA6 Professor</td>
<td>MBA3 Librarian</td>
</tr>
<tr>
<td>MBA4 Career</td>
<td></td>
<td>MBA4 Professor</td>
</tr>
<tr>
<td>MBA5 Career</td>
<td></td>
<td>MBA4 Librarian</td>
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<tr>
<td>MBA6 Librarian</td>
<td></td>
<td>MBA5 Professor</td>
</tr>
<tr>
<td>MBA6 Career</td>
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<td>MBA5 Librarian</td>
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</table>

All career services professionals were identified as reactive in connection with FBL because of their informal role. The only exception to this was one program in which the career services professional also serves as a faculty advisor for a team in the FBL course (MBA2). The entire group of lead faculty members at these programs played largely proactive roles except for one in which the faculty member orchestrated the process by having weekly meetings with his teams, but was willing to allow the process to evolve through a more open and noninterventionist approach. He expected students to contact him for assistance when they were struggling and was not too concerned about the students’ struggles because he actually saw that as key to the learning process. Although all the programs shared this view of giving students the opportunity to struggle with the ambiguous problems in their project, this program took a
particularly hands-off approach. This may also have evolved from necessity, given the unstructured character of this FBL course and that this professor was advising over 30 teams.

Of the roles in all three categories (reactive, somewhere in between, and proactive), business librarians appear in each. This indicates the different choices made by MBA programs on where this role fits in FBL courses. Some programs chose to have the librarian assigned to a team and proactively reaching out to each team. One component that further illustrated the level of proactive involvement of business librarians in some programs was their attendance at student presentations.

The student teams shared their results in FBL courses by creating final presentations for the sponsoring organization. This was an important element of this curriculum in which students could be evaluated on the quality of their slides and on how well they presented and answered questions about the project. Only one program (MBA3) had business librarians who not only attended these presentations but also evaluated the secondary research component of these deliverables as part of the student teams’ final grade. In two other programs (MBA4 and MBA5), in which the business librarians were not involved in formally evaluating projects, they appreciated the value of attending these presentations as another way to connect with the FBL course and to witness the results of the student teams’ efforts. As one librarian said:

    It’s been really good for people to go and just see what the students are doing, and what are the conclusions they came up with. From my vantage point, I think it’s very useful because it connects the things that we’re doing with the outcomes in a way that you can’t really capture in any other way. (MBA5 Librarian)

In the other three programs, the librarians did not attend these presentations. In the online survey conducted with business librarians at the Top 20 MBA Programs (see Appendix E), only two institutions replied that librarians serve as judges for these project presentations.
5.2.2 Issues of Jurisdictional Claim among Roles

The data revealed much evidence of the different players vying for jurisdictional claim in certain FBL support roles (Abbott, 1988). The FBL approach is evolving as academia seeks new models for this type of education. As new roles were being developed to support FBL, there were issues of contention that were arising from where roles had jurisdiction. In terms of active engagement of business librarians, programs differed in how this role was best deployed. This research identified three approaches to the work of business librarians with FBL project courses.

Figure 5.1 shows the three approaches to the positioning of business librarians with FBL courses and which were followed by each of the top 20 full-time MBA programs: 1) self-service (proactive), 2) embedded (proactive) and 3) on-demand (reactive). In many instances, the focus of the librarians in their work with FBL was not exclusively found in one of these three approaches, although they were a primary focus. For example, some of the libraries identified as “self-service” indicated that they also scheduled optional “research drop-in sessions specific for these student teams” and another mentioned participating as “program managers” with FBL experiences. Unfortunately, the survey response did not provide further details on what it meant to be a “program manager” for their school’s FBL course “experiences.” Some of the libraries with a more hands-on focus also created self-serve online guides for students to use for these projects. The following section describes in detail the three approaches through which business librarians interacted with FBL.
Approach 1 - Self-Service. In this approach, FBL project support was focused on self-service online guides and resource tools. This required good IT support and infrastructure. A potential challenge was that once produced and completed, such materials are not easily adapted when a project changes its focus; evidence from this research showed that such project changes were typical in these courses. A benefit of this approach was that it allowed the library to more clearly define the use of staff time. This permitted the business librarians to be less affected by changing projects and capacity issues. In one response to the online survey, one institution described their “self-service” approach:

Librarians curate and deliver weekly news updates based on field locations; participate in the field experience (in the role of program managers); develop material to help students learn more about the social and business culture of the regions where they will be traveling; create country specific postcards with resource recommendations and QR codes that link to the related online product.

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4 The method for tabulating these results involved looking at the institution specific responses to Questions 5-10 in the Business Librarian Online Survey. To guarantee response anonymity the survey results have been provided in Appendix F in aggregate.
Approach 2 – Embedded. In this second approach, librarians met with the FBL course teams with a heavy focus on in-person engagement that supported research on the FBL projects. This required a larger business librarian staff. Consequently, a school with only one or two business librarians would not be able to choose this approach. Only one respondent in the online survey indicated that they used this approach with fewer than three librarians. Minimal IT support was necessary, since this approach worked well with LibGuides or even Microsoft Word documents posted to the course management system for students to reference as research guidance tools. One benefit of this approach was that the close interaction with teams allowed for adjustment of recommendations and guidance as the project evolved and possibly changed its focus. This approach was more connected with activities of the actual course through its interaction with the other course facilitators. This level of engagement could also lead to the involvement of the librarians in project judging and after action reviews.

The heavier involvement provided the librarians with more information about the projects that could be applied to their work with the student teams. The big challenge was the unpredictability of the demands on time and workload. Providing the right level of support could take away from time available for other duties such as central library committee work and other general demands. Table 5.6 includes two institutions’ comments in the online survey about their school’s embedded approach.

Table 5.6

Comments from Schools with an Embedded Librarian Approach

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<th>Comment</th>
<th>Institution</th>
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<tr>
<td>&quot;It is one of our biggest success stories enabling us to partner and collaborate with faculty and students; it has contributed to librarians being seen as part of the student teams and their community; it has greatly increased our visibility and value.&quot;</td>
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<tr>
<td>&quot;This is a core role for us. Expectations placed on the librarians by the programs we support can be difficult to meet due to timing of expected consultations. Some programs also have difficulty placing the required library consultation at the best time for the team. Rather than have timing that maximizes the team’s needs, the consultation is scheduled during the best time for the program. Even if that might mean</td>
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The night before a major exam. This relationship, across multiple programs, is a work in progress and ever-improving.”

**Approach 3 - On-Demand.** The final approach was one-shot instruction and on-demand support in which the librarians provided an in-class source review when requested in addition to traditional reference services. In institutions with only one business librarian, this approach might be the only option because it did not require a larger staff. One clear benefit of this approach was that it reflected the status quo of the typical librarian support and did not affect personnel issues and the librarians’ other job duties. One potential challenge of this approach was that the librarians had less understanding of FBL course work and may not be prepared when higher demand for library services was needed in FBL project courses.

Of the three approaches to partnering in the six case studies, the majority of the business librarians engaged in the embedded approach. Business librarians provided proactive support through intensive in-person support or through focused online guides. Beyond the roles of business librarians, there were two areas where issues of jurisdictional claim between the roles were uncovered in the data analysis. These were 1) the issue of tenured or tenure-track faculty vs. business practitioners serving as adjunct faculty and being the best instructors and facilitators for FBL and 2) the rise in the number of administrative roles created to support FBL at some schools and the extent to which they should be involved in pedagogical design and delivery vs. tenured faculty. In response to the contentions between lead faculty and administrators in course design, one professor felt it was the responsibility only of faculty when discussing a high level administrative role for FBL at his school:

She’s the business managing director if you will of the whole thing, but in terms of ... pedagogy and what we’re doing she’s been doing this long enough that she knows that that’s [most] often sitting in faculty hands, what are we trying to do with our pedagogy here and what’s the nature of action-based learning. Now, this woman is involved in that, she goes to the conferences with her peers that are putting this on and she clearly has
something to say about that, but that [curriculum design] seems to be sitting inside of faculty deliberations about our program. (MBA5 Professor)

Another respondent indicated that his program had:

….kind of elevated experiential education a bit. We have a new dean, that means we have new associate deans, the new associate dean [of the experiential collaborative] really knows nothing about experiential education. I don’t think he’s going to do anything about it. (MBA2 Professor)

This comment underscored the potential tension between someone who had done FBL for some time and those who were new, and it highlighted the challenges that arose as new roles emerged in the curriculum development in the midst of those with more established expertise and experience with FBL.

The emergence of a separate administrator roles was a notable development revealed in the data. Some interviewees suggested that the recently created Leadership of Experiential Project-Based Education (LEPE) conference, begun in 2009, focused primarily on individuals in this role. (For details on this conference and FBL administrators, see Appendix F.) The establishment of this annual conference relates to Abbott’s theory of professions and the concept of jurisdictional claim that identifies how emerging professional roles create official groups to establish their legitimacy. As stated by Abbott, “…some groups are lobbying groups, some informational ones, still others aim at particular control” (Abbott, 1988, p.79).

An additional dynamic was the issue of which roles received extra compensation for work supporting these teams. Faculty and other advisory roles were given extra compensation for their time working with students on FBL projects. As one professor said, “….We pay this professor to give us an actual 90 minute classroom session on survey design and offer a ton of office hours” (MBA2 Professor). Another program said that individuals involved with their FBL received supplemental compensation:
All the work for [FBL course name] is extra pay, because they don’t know how to, you know, judge it relative to a normal class, right? ... So, the decision was made, ‘well, we’ll just pay cash extra, because it’s extra work’, and then it won’t be end-loaded.

(MBA6 Professor)

However, the interviews revealed that there was never any extra compensation for the librarians who supported these projects.

5.2.3 Social Network Analysis of Roles supporting FBL

The FBL form of instruction lends itself to an examination of the social networks of the roles involved beyond just teacher to students. In examining the data from this research the following details were found. First was the central role of students and the various facilitation roles that support student teams in FBL. There were some additional roles that supported these facilitation roles such as the faculty lead and administrator roles at some programs. In terms of the dynamics of the business librarians, some were gravitating closer to the center of action of these networks and others were further removed. Business librarians and faculty in some schools were quite close partners (MBA3 and MBA5).

The data on these networks represented in Appendix G assumed that the student team was at the center of the network as depicted in Figure 5.2. For some roles such as administrators, these positions often had other roles supporting the work they did, although this is not represented in the tables in Appendix G. The one role not included in the tables in Appendix G is the information technology role, which was not cited in the interviews mentioned as a specific role that supported this learning. Such support, cited at MBA1 and MBA4, was a basic utility and communication platform with no direct connection to FBL pedagogy, even from an advocacy perspective. Students used online conferencing systems, video, email, Excel, and Power Point programs as part of this learning, but they used the same information technology
tools for their other courses. There was nothing distinguishable about the role of IT and FBL at any of the schools.

Appendix G includes a table with the levels of engagement of different roles in place to support the FBL experience at each program. Roles that were required are represented by the number “1” and worked more closely with student teams than the others. Level “2” indicates optional roles that students were encouraged to use, while level “3” is a support role available but not really promoted by the curriculum. “A” represents roles that definitely advocated for the FBL curriculum but had no direct connection in supporting student teams. Table G.1 counts the number of roles connected with the FBL course at each of the six programs. Fewer roles were mentioned, 4 and 7 respectively, at the programs where FBL was only an elective course (MBA1 and MBA6) than the average number for the other programs, which ranged from 6 to 11 roles that supported teams. At MBA3, where FBL was a core class, only six types of roles were identified that supported this learning. Another point revealed in this data was how in some programs the administrator role was merely an advocate represented by the letter “A” for the FBL curriculum whereas in one school this role was directly engaged with this learning as represented by the number “1” which indicated that students were required to work with this role as a required component of this learning.
A figural network depiction of these roles and level of formality to student teams at each of the six MBA programs is shown in Figure 5.3. Proceeding in the order of the numbers of each MBA program, at MBA1, only four roles were identified. This was a program in which the FBL courses were led by a faculty member without additional support roles. Both the business librarian and career services professional were not very engaged with these courses. However, this program did have a high level position reporting to the dean who was an advocate for these courses and who identified curricular partnerships for the school.

At MBA2, there were more roles involved in FBL and the respondents mentioned different roles that advised project teams on certain topics such as statistical analysis or designing a survey. Students were encouraged to call upon these roles for assistance on an as-needed basis. The data set only lists the specific topic experts mentioned in the interviews, but there appeared to be others that offered this type of support to teams as well. The business
librarians were also an “as needed” resource at this program where teams were not required to meet with their assigned librarian.

**Figure 5.3** Roles supporting FBL and Level of Formality at the Case Study Institutions
Level of Formality of Roles at MBA Program 3

1. Associate Dean for FBL related Initiatives
   - Teach and design curriculum
   - Business Librarians (often each team assigned one)

2. 2nd Year MBA Team Advisor
   - Discipline Faculty and Alumni

3. Student team

Level of Formality of Roles at MBA Program 4

1. Faculty lead and faculty advisors (1 per team)
   - Responsible for grading
   - Business Library Coordinator with FBL course
   - Business Librarians (each team assigned one)

2. Alumni Mentors
   - Presenters at mentoring workshops
   - Different tools and methods appropriate to different projects (i.e. interviewing, conjoint analysis, etc.)
   - Communication Faculty member - advising teams on writing and presenting
   - Team Effectiveness Advisor

3. Student team

A. - Alumni Development Office
   - Career Services Professional - Career Advisor and Outreach

B. Director of FBL program
   - Career Services Professional - Career Advisor and Outreach
There were fewer roles supporting FBL at MBA3. At this school, which was similar to MBA6, one faculty member advised all teams in the fall version of this course and led the grading of their work. At MBA4 and MBA5, which also had the largest number of teams to support at 65 and 80 respectively, there were many additional roles that supported this type of learning and a separate faculty advisor or advisors for each team with the number of teams to advisors ranging from one to six. At MBA5, there were two faculty members serving as advisors to each team and grading their work. At MBA4, in addition to a faculty advisor responsible for directly advising and grading the work, this program engaged recent alumni in this learning as advisors to project teams in the role of Alumni Mentors. At MBA6, the faculty member and course administrator worked together in the management of all aspects of the FBL course with the faculty member directly advising teams and grading their work. At MBA4, each business librarian was assigned to a student team, and served as the library’s coordinator and point person with the FBL program at their school.

In terms of level of formality and engagement of different roles with student teams (see tables in Appendix G), the programs at MBA2 and MBA5 had the most roles directly connected with this learning. The level of engagement of the business librarian role varied. At MBA 1, the business librarian was not engaged with this instruction at all; in two programs (MBA2 and MBA6), the business librarians were positioned to be available to the students on a discretionary basis; and in three programs (MBA3, MBA4, and MBA5), the business librarians had a more direct, formal role in this learning where students were required to engage directly with them.

5.3 Summary of Research Question 4

This chapter reviewed the wide variety of roles that support FBL project courses at full-time MBA programs. The chapter also examined various aspects of the interaction between
roles that provide this support and categorized types of roles by whether they were proactive or reactive in their engagement with the FBL student teams working on these projects. Some roles played more of a formal, central place in this learning and others had weaker ties. Some commonalities included the faculty leads always playing a central formal role, while most of the career services professionals functioned as “advocate” roles and team advisors in “level 2” discretionary roles. Beyond these examples, there were no other similarities in specific roles among the six programs in their level of proximity, engagement, and formal ties to supporting student teams.
Chapter 6

Discussion

This chapter highlights themes and insights that emerged from this research. This discussion reviews the strengths of FBL identified in this research and some challenges. The chapter concludes with a review of unique opportunities for making MBA education more relevant to the needs of today’s students and for further research.

6.1 Strengths of using FBL Pedagogy

The strengths of FBL instruction identified in this research include giving students the opportunity to work on a real project at a company, to practice teamwork, and to learn techniques from the field of consulting. The inclusion of diverse roles in FBL instruction also provides a unique way for students to learn how to make effective use of knowledge expertise through the personalized attention of FBL instruction.

6.1.1 Working on Real Business Projects

The respondents identified many benefits of the focused, specialized learning provided in FBL with its facilitation by diverse roles. One benefit was the connections with the work that real businesses are doing today. Companies are interested in these student projects because the students’ work provides a fresh perspective on an actual challenge within a company. Companies have also found that collaboration with FBL courses was useful way to identify potential MBA talent. Reflecting on the popularity and success of these projects, one professor stated that his program had a backlog of companies interested in partnering in FBL courses (MBA4 Professor).
6.1.2 Practicing Team Work

Another benefit of this learning was the opportunity for students to experience intense teamwork over an extended period. As stated by Edmondson and Nembhard (2009), "observation and investigation has led to the identification of teams as a fundamental source of learning and organizational effectiveness" (p. 124). Resolving interpersonal issues within the teams which were working on challenging organizational issues was an important part of these courses. The programs had procedures in place to provide teams with “just-in-time” coaching to address the issues. Two programs (MBA4, MBA5) had specific advisors assigned to each team who provided this coaching.

There were differing opinions among the faculty about students being formally graded on process issues, although all the programs believed that developing team skills was an important component of FBL. At MBA5, there was no graded assessment of such process outcomes. The challenges a team might have faced working together did not matter if it successfully produced a quality deliverable for the project sponsor. Other schools (MBA2, MBA3, and MBA6) felt it was important for the student teams to be formally evaluated on their team work and included this as part of their course grade.

6.1.3 Applying Consulting Techniques to FBL Projects

Three out of the six programs reviewed (MBA2, MBA3, and MBA4) emphasized the positive benefits of incorporating consulting techniques into the student work on these projects. These techniques involve project based problem solving methods used by management consulting firms such as McKinsey (Friga, 2009; Rasiel, 1999) that students used in working on the ambiguous situations in these projects. In those three programs, there were individuals with experience in consulting who were involved in the curriculum design. This reflects the potential
influence of past experience and expertise in the development of “identity narratives” (Ashforth, Harrison, & Corley, 2008) and the influence by “shared beliefs” (Biddle, 1986) in the design of FBL courses.

These three programs credited their success with the inclusion of these techniques in their curriculum. Two other programs, MBA5 and MBA6, did not include guidelines about the consulting method as part of the instruction. They believed that students should apply what they knew from prior experience or courses in the MBA program to the project problem. In their view, any additional assistance and guidance could be provided on an as-needed basis by different advisors and other support roles.

6.1.4 Receiving Personalized Attention

The structure of FBL project courses were almost completely focused on team meetings where different advisors provided personalized support. This focused attention was a strength of FBL. The only constraint was having enough advisors available to provide the necessary guidance to students. As one librarian said, “…The more teams you have, the more difficult it is to provide the personalized attention” (MBA5 Librarian).

6.1.5 Working with Knowledge Experts

As suggested years ago by Mintzberg (1973), an important competency of managers is their ability to make effective use of the expertise at their disposal. Several respondents discussed how FBL helped students develop their skills in identifying and using available expertise when working on team projects (MBA2, MBA3, MBA4, and MBA6). These classes made use of external professionals, non-faculty staff such as librarians, and faculty expertise in a “just-in-time” fashion. One interviewee noted:

I think we also have a lot of ways of bringing in experts. So for instance, if the students are going through a process of running a conjoint analysis or a survey we now have a
marketing professor who is an expert in the subject who will give assistance at the right
time of year for this project to those students. So I think it enables us to bring in some of
the academic expertise at the point of need vs. just in a completely classroom based
environment which is detached from reality. (MBA2 Career1)

The study provided evidence of how FBL instruction gave students experience in
learning how to effectively use the resources available to them, and how to reach out to and work
with experts. Organizations might provide expertise in all sorts of useful forms. But, if
managers do not know how to connect with as well as effectively make use of this help, such
resources often end up being underutilized and impeding innovation (Kleinbaum & Tushman,
2007). Providing more focused instruction through FBL courses on effectively making use of
experts could also instill skills for coping with factors caused by organizational change and
minimizing any potential harm caused by it (Judge et al., 1999).

There has been much written about the usefulness of organizations working to more
effectively “manage” or “enable” their organization’s knowledge (Davenport & Prusak, 1997;
Choo & Riva, 2010). There has also been research on how efforts by organizations to develop
these systems have faced challenges (Davenport & Cronin, 2000; Von Krogh, Nonaka, & Ichijo,
1997; Wilson, 2002). This study demonstrated that providing instruction and offering the
opportunity for business students to practice effectively using experts could be a way to begin
overcoming such challenges. It is possible that the fault lies not with the knowledge
management systems, but rather with the individuals who do not have the skills to effectively
make use of such a system. This research demonstrated how challenged student teams could be
in making use of the variety of expertise offered to them on their student projects. In this study,
many students were able through FBL to develop skills in this area.
6.2 Challenges Facing FBL Pedagogy

This study also identified challenges that programs faced in their delivery of FBL courses. These included the issue of time and other limitations of working within an academic format and the potential inadequacy of types and number of staff needed to provide customized attention. The variability of projects reflective of the changeability of business, the challenges faced in adapting to new roles to support FBL instruction and adequately communicating learning outcomes to all stakeholders.

6.2.1 Learning within Time Constraints

Time constraints posed a problem to students gaining a meaningful learning experience from FBL within the tight time frame of a two-year MBA program. A professor at one program expressed his concern about this:

Everyone here, including our dean, talks about experiential education being really important … But you know, they take something like 27 courses in their two years at [business school name]. And the only required experiential course is the one I teach. So they take a minimum of 1 out of 27 courses that are experiential. I don’t think we’re breaking the bank here. (MBA2 Professor)

This professor later said that these time constraints and the limitations of what could be accomplished within them required that that the “….FBL projects are, have to be pretty focused for nine weeks, part time” (MBA2 Professor). In this program, the professor indicated that working with business librarians within the nine-week time span of the course often did not allow the students enough time to work with one. Another program described the extensive work expected of teams in less than two months. At this program, this was the only course the MBAs were taking during this time. As one professor said,

They’re working against heavy time constraints because they usually start collecting data a couple of weeks into the project and they’ve got to have it wrapped up a couple of weeks from the end because they have to write it all up, so they’ve got about three or four weeks to imagine, collect, analyze and make sense of that data. (MBA5 Professor)
6.2.2 Allocating Credit Hours for FBL Courses

Another challenge was the faculty credit hour allocation (MBA2 and MBA5) and how to apply this to a course that required such intensive personalized attention for each team. The level of work required in advising each team was extensive, and presented a dilemma about the allocation of credit hours to the faculty’s semester teaching requirements. For example, in instances where a faculty member only worked with one team, it was unclear if that professor would be given the same number of credits as a professor who was an adviser to several teams. This was an issue that the programs were debating.

6.2.3 Contending with Capacity Issues

Given the growth and popularity of the FBL courses, having adequate staff to provide and facilitate adequate support for teams was a challenge. Only three of the larger ten programs in terms of the number of MBA students (798 to 1867 students) from the top 20 ranked schools required an FBL course in their curriculum. One respondent described the growing popularity of this course at his school with potential sponsor organizations and the resulting capacity constraints. The professor said:

Because now we have like a waiting list of clients that want to submit projects into this program. And given the size of it that’s a big order because we have 60 plus companies whose projects -- or 70 companies who are involved in the program and there’s probably another list of 35 or 40 that didn’t get their projects accepted. (MBA4 Professor)

Another program discussed the increasing demands of FBL. She said,

As the student body has grown over time the number of teams we’re supporting over time -- I mean there was a time when each librarian might have six or so teams to support. Now there are a couple of us who have 12 teams each to support…It’s a challenge. (MBA2 Librarians)

Only in one program (MBA1) did the business librarian indicate that her team did not face these capacity issues.
6.2.4 Making Adjustments based on Negative Student Feedback

In two programs, FBL had been changed to an elective and not a core course in response to negative feedback from some students. The feedback reflected student resentment at being required to take the class which they felt did not align with their expectations of their MBA experience. Change based on student feedback could also affect the types of FBL support roles. At one program (MBA2), due to negative feedback from students, a requirement for student teams to meet with an assigned librarian at least once was discontinued.

6.2.5 Working with the Changing Dynamics of Real Projects

Another challenge was providing adequate levels of personalized support for projects with a changing focus. The changeable focus of projects could affect the workload of roles assigned to support a team. As one librarian said,

You may have situations where all of a sudden half way through the project the team goes, ‘Oh, yeah, we’re no longer looking at this, we’re looking at something completely different.’ …That happens about maybe 20, 25% of the time where all of a sudden you’re sitting there, and it’s midway through ... and they’ll go, ‘Oh, my God, we have to change things completely’. (MBA5 Librarian)

This comment describes the types of dramatic shifts that can occur with these projects and the demands that this placed on those roles supporting them:

I was working with a company this last year that was going through major upheaval. The CEO had left, there were layoffs -- impending layoffs, the moral in the company was awful, and so the last thing that the sponsor thought would be appropriate is you bring in a bunch of students who look like consultants. It made people very nervous. ...their travel to the corporation was delayed. Furthermore, the project changed quite a bit. It went from looking at one particular product line in one particular market to how they can do a better job of implementing an e-commerce solution. So, it was one of these situations where things change very rapidly, and it was really -- they ended up doing a great job. They were -- the faculty was very pleased, but their experience, while less than ideal, in retrospect this is one of those challenges that you overcome, then all of a sudden you go, ‘Oh, actually this was really good. This was a great accomplishment.’ So [this FBL course] is not clean cut, it’s not simple, it’s not scripted, it’s a reality show that is reality, as opposed to a reality show that’s scripted, and I think participating in that, from a librarian standpoint, is fantastic, it is the best thing. (MBA5 Librarian)
While this business librarian saw benefits in the face of adversity, another respondent emphasized how this could be problematic if communication among roles that support FBL curriculum was not as clear as they could be and the limited resources were ineffectively deployed. This librarian said, "….Often times the project description that we get, by the time the students get together with their advisors, it’s changed and we are not informed of that change. So we might do a lot of work that’s missing the mark" (MBA2 Librarian).

6.2.6 Adapting to New Roles

Some programs faced difficulties as individuals needed to adapt to new roles. Biddle (1986) refers to this dynamic of individuals having new roles imposed upon them and the challenges that can result as role conflict, which he defines as “….the concurrent appearance of two or more incompatible expectations for the behavior of a person” (p. 82). For example, a respondent at MBA4 discussed how the library manager faced staff challenges with aligning all the business librarians in their support of FBL. Business librarian roles that support FBL could also conflict with the overall university library. Three business librarians (MBA2, MBA4, MBA5) suggested that the highly engaged work with FBL was not typical in other parts of the university, and that it could be difficult for the university library administration to appreciate the demands of this type of work. Extra university-wide library project were often imposed on these librarians, which made it difficult for them to adequately devote time to their FBL roles. In comments on the increasing demands of supporting FBL, one librarian stated that their job roles “haven’t changed…If anything, there’s been additive work coming from the central library…So there’s not really a recognition from senior leadership about the work load on librarians” (MBA2 Librarians).
This study found that the majority of the librarians at the top 20 schools reported to the central library and not the business school. This could be a factor that inhibited some business librarians from having more of a formal role in FBL, since their library administrators might not be familiar with FBL. Of the four programs in which business librarians had a formal role with FBL, only one reported to the central library administration.

In addition to the business librarians, other positions were contending with changing roles such as the greater need for logistical administrative support for these courses as well as new types of team support roles. There were contentions over jurisdictional claim for authority over various professional roles, as Abbott (1988) had described. In some cases, it appeared that claim for the overall authority of the course came from the faculty lead (MBA2, MBA3, MBA6), although in the other programs, the FBL administrator roles shared decision making responsibilities with these faculty lead roles (MBA4, MBA5).

Abbott discussed this type of sharing and the potential tensions that could occur between roles. Although the respondents did acknowledge their differences, this study did not expose any evidence of strong tensions between roles at these two institutions, which suggested what Abbott (1988) described as a settlement by division of labor. Abbott noted that “….occasionally, a contest in jurisdiction results in a standoff. Such drawn contests are often followed by division of jurisdiction into functionally interdependent but structurally equal parts” (p. 73). This study collected data on the perspective of faculty. Interviewing FBL administrators as well could have provided additional insights on the division of labor at these programs.

6.2.7 Communicating FBL Project Course Outcomes

The complexity of the design and administration of FBL courses lead to misunderstandings of what they accomplished because the outcomes of FBL pedagogy could be
difficult to measure. Consequently, it could be a struggle for leaders of these courses to adequately describe to the school administration what outcomes were achievable. One professor said,

And the main dean, the head dean had a bunch of strong ideas…He thought it did certain things and he would tout it for doing things which it didn’t do and couldn’t do. So you know, this was explicitly educating our managers. We’ve continued that, you know, when I need, no other course has its teams like I do. (MBA2 Professor)

6.3 Implications

There are implications from this research for business and academic librarians and for the MBA program curriculum.

6.3.1 Implications of this Research for Business and Academic Librarians

This study demonstrated that learning connected with real experiences was advocated in business schools: “Experiential learning is a big area of growth for us here” (MBA2 Career1). In terms of business library support, some programs indicated that their partnership with FBL curriculum was growing alongside the expansion of FBL courses at their school. Said one librarian, “…One of the things that’s really remarkable is that the school has expanded the number of action learning programs that it has, and we’ve been able to sort of shift and move around work in order for us to support that” (MBA5 Librarian). This respondent added that he believed all business schools would prefer business librarians to be more involved in their FBL courses:

I think there is enthusiasm on the part of the [MBA] program folks to have information support for their teams. There just might not be universal desire on the part of the libraries, especially if they have smaller staff. (Personal Communication, MBA5 Librarian, 7/7/16)

Biddle’s (1986) theory on the impetus for role changes in organizations suggested that they could be agreed upon through consensus or imposed on roles through conformity. The data
collected in the case study interviews offered evidence that indicated that most business librarians were consensually adapting to supporting the needs of FBL courses. This was illustrated in the librarian interviewed from MBA5 who spoke about his team eagerly adjusting and adapting to new roles in the face of the growth in the number of FBL courses at his program. The online survey results, however, suggested that this level of engagement was not the norm. It is possible that other programs could encounter role changes being imposed on them because of the increased popularity of FBL and this more engaged form of project-oriented curriculum. The Three Approaches model in this study depicted how business librarians were supporting FBL. With that categorization, nine of the schools had not changed their model to support FBL and were only providing reactive on-demand support.

This research contributed to knowledge of practical approaches for implementing the embedded librarianship model that has gained momentum in academic libraries in the past few years (Brower, 2011). The models in which business librarians were formally supporting FBL at four of the six case studies provide detailed descriptions of their embedded approach within their organizations. These comparative case studies offer a practical resource for librarians. The three categories of support model: 1) self-service (proactive), 2) embedded (proactive) and 3) on-demand (reactive) could be a useful tool to apply to other areas of academic librarian work. The model could be used for analysis of cases in which librarians are assuming more proactive vs. traditional reactive roles (Budd, 2005; Grassian & Kaplowitz, 2009).

6.3.2 Implications of this Research for MBA Program Curriculum

In the area of MBA education, this research provides a detailed comparative exploration of the mechanics and operational features of field-based learning (FBL) at six top MBA programs. This study contributes to management education’s understanding of models for its
delivery and organization in different programs and with different roles. There is wide agreement on the advantages of FBL in MBA curriculum (Brown et al., 2013; Datar et al., 2010) but no comparative descriptions and analysis of the deployment of these courses. An additional contribution of this review was describing how the courses taught MBAs about making effective use of diverse expertise to complete a project. Being able to effectively develop networks when they join an organization and to understand areas of expertise at their disposal are powerful skills for students to develop.

Another implication for MBA education is the development of formal training requirements for the design and teaching of FBL courses. For example, at MBA2 and MBA4, most faculty and other support roles had not received formal training on working with FBL. The AACSB offers a course on experiential learning (MBA2 Professor) and the annual LEPE conference provided some tips and guidance (MBA2, MBA5, MBA6), but there were no formal guidelines and educational requirements for those who lead and support FBL pedagogy. As one respondent said, “I see a gap in the market for sort of how to teach this as a discipline to other teachers and how to sort of develop these programs” (MBA2 Career1). This individual spoke of how he learned to advise FBL team projects, "….I think my training was on the job when I was with McKinsey so I sort of use what I got there” (MBA2 Career1). One program (MBA5) offered a type of apprenticeship model with more experienced faculty that provided guidance to faculty who were new working with FBL.

This lack of a standard method of training on the FBL approach was an intriguing omission when considering all the roles that support FBL. The amount of effort expended in curriculum design and in determining the support roles needed for various sorts of guidance to student teams reflected an awareness of the variety of expertise that was needed. However,
there were differing opinions on which roles should do what in the design and support of curriculum and what prerequisite courses the students should be required to take before they embarked on these FBL projects. Several respondents cited the challenges of maintaining a consistency of practice in terms of how faculty advisors and other supporting roles worked with different teams. Training requirements or a set of formal guidelines for FBL courses drawn from research like this study would be a helpful contribution to MBA education.

6.4 Limitations

As seen in Chapter 5, FBL support roles were identified to inform a basic understanding of the social networks involved in these activities. However, the small sample size of only collecting data from 21 individuals from the six institutions for the case studies limited the opportunity for generalization of results. A complete social network analysis of this phenomenon would require a larger sample and gathering additional data from respondents on the perceptions of the levels of engagement of different roles involved to determine which carry more “social capital” in the support of a school’s FBL curriculum. Another limitation of this study was that it was designed to collect data sequentially and did not include the opportunity to return to respondents at the case institutions to probe further into insights identified after an initial analysis of the interview transcripts. The study also only reflected the viewpoints of the categories of respondents included in this study. For example, a group that could be surveyed would be MBA students to collect information on what they think of FBL courses and their impact on their development as managers.

6.5 Future Research

The results of this study suggest that there are many avenues for future research with FBL that include:
1. Explore Roles in Greater Depth

In this study, the business librarian role was explored in greater depth than the other roles. Although this research led to a greater appreciation of the business librarian role as one of the knowledge experts who support FBL, the interviews revealed that it was the faculty, and not the librarians, who referred to business librarians as experts. The role business librarians play in FBL as experts in secondary data identification and collection could be explored further. The social network model could be used to identify where business librarians see their role in relation to other facilitators and how connected they are to student team project support. Future research could also further explore all the FBL facilitator roles as experts who support student teams and the extent to which teams make use of this expertise.

The results from this dissertation showed how FBL offers a unique way to teach MBA students about effectively working with knowledge experts for assistance with projects. A future study could investigate student team interactions with these FBL expert contributor roles and how this practice helps students become more adept knowledge workers. A possible other method of examination of MBA students would have been to elicit the perspectives of students who had taken FBL courses as well as those who had not and collecting data to explore whether participating in this type of experiential learning had a positive impact on students’ post-graduation work experiences.

2. Expand Perspectives

Expanding the study sample beyond the top 20 U.S. full-time MBA institutions to all 50 in the U.S. News & World Report list would allow further exploration of the norms of FBL curriculum structure and facilitation among different business schools. Other types of
institutional rankings of MBA programs could also be used to identify a larger sample. For example, expanding beyond just U.S. schools by referencing the schools listed in the Financial Times’ *Global MBA Ranking* (Financial Times, 2017) would provide a potential sample for an international, comparative analysis of FBL curriculum.

Another approach for expanding perspectives on FBL support could be to gather observations from other parts of the university beyond the business school. For example, in this study, two business librarians shared that they believed that the central library administration did not appreciate the heavy workload required to support the FBL projects. Consequently, it would be helpful to interview senior library administrators to obtain their perspectives on FBL at their institution’s business school and how their business librarians support this type of instruction.

At business schools there are other positions that were not examined in this dissertation. Understanding the views of the FBL administrators would offer alternative insights, since the data showed that professors believed that it was their role to be the primary designers of FBL curriculum. Research could be designed to see if FBL administrators share that view and to discern other characteristics of how they perceive their role. It would also be helpful to interview business school deans to explore how their backgrounds from business practice or academia influenced how FBL is deployed at their program. Given their core leadership role of the business school as described in Chapter 5, these individuals are responsible for directing their school’s strategy. Conducting research to gain an in depth understanding of their views on the choices their school has made about its FBL offerings could offer a useful complement to this research.

In addition, it would be helpful to explore the perspectives of the companies and organizations that have sponsored FBL projects. These sponsors could offer unique insights into
this pedagogy’s goal of giving students the opportunity to experience solving real business problems. It would be valuable to better understand the sponsors’ perspectives on the successes, failures, and challenges they have experienced while working with the student teams, and also to elicit their impressions of how these projects should be structured, supported, and evaluated.

3. FBL Outcomes Metrics

The findings of this dissertation highlighted the importance of outcome measures in this area of MBA learning. As reported in Chapter 4, the respondents indicated that grades did not adequately account for the value proposition of FBL. Different outcome measures are needed, although as this study found, the outcomes of FBL can be difficult to measure. Student grades were primarily focused on the student team final report or the teams’ presentation to the project sponsor. Some schools included process learning as part of the grade, although respondents reported misgivings about the effectiveness of their evaluation methods. For example, low grades on these projects might not account for the potential of positive process learning outcomes offered by learning from failure. Research has shown that this can potentially lead to success (Cannon & Edmondson, 2005; Edmondson, 2011; McGrath, 2011; Sitkin, 1992).

One approach to creating new metrics would be conducting a comparative analysis of the measures that have been used to examine the return on investment (ROI) of the MBA. For example, Rubin and Dierdorff (2009) conducted a study on the alignment of MBA curriculum with managerial competencies. It would be important to determine which measures identified might be relevant to FBL curriculum and additional measures that might need to be developed. Areas unique to FBL might include an assessment of whether schools charge project sponsors a fee for this work and its impact on curricular outcomes, and documentation of the extent sponsors change their project focus while teams are working on them. This could be used to
evaluate how a change in the focus of a student project affected not only the support role structures, but also the student team outcomes.

Another area related to outcome measures would involve assessing the value proposition of FBL to the project sponsors. This approach could explore the extent to which the sponsoring companies actually adopted the recommendations of the MBA students.

Ultimately, a large longitudinal study could gather data on the various near-term, mid-term, and long-term outcomes of FBL. Such a study could include a control group of MBA programs. This would be of tremendous value to MBA education and the current concern about the relevance of the MBA degree in the 21st century business environment (Datar et al., 2010; GMAC, 2013). A longitudinal study could demonstrate the long-term value of FBL in MBA programs and result in a group of outcome measures that could be used by others focused on learning through practice.

6.6 Conclusion

In this study, FBL was shown to bring the ever-changing issues facing today’s business into the teaching of business schools, and to give MBAs the opportunity to practice what they are learning in a robustly supported environment from a diverse range of experts, including business librarians. The rich data uncovered by this dissertation on FBL project curriculum reveals details on an important focus of business school pedagogy and how business librarians as well as other roles participate in it.

The FBL projects help to prepare students for the diverse real demands of managerial work. Each school had their own model for the grouping of roles providing customized support to guide these team projects. Schools varied in the structure of their courses, the definition of roles, and levels of role support engagement, with some roles more proactive than others. In
conducting this research and reviewing the literature, it appears that no other researchers are studying the curriculum structure of FBL, the roles that support it, and their theoretical constructs that were the focus of this study. The findings of this dissertation provide an opening to new avenues of research in the disciplines of both library science and management education. As higher education institutions continue to consider how to bring more immersive experiences into their programs, this research offers new insights for decision makers, instructors, librarians, and designers to consider as FBL pedagogy continues to evolve and takes a more central place in today’s academy.
References


Wildemuth, B. M. (Ed.) Applications of social research methods to questions in information and library science. Westport, CT: Libraries Unlimited.


Appendices
### Appendix A: Matching data collection with research questions

<table>
<thead>
<tr>
<th>Survey or Interview Question</th>
<th>RQ1</th>
<th>RQ2</th>
<th>RQ3</th>
<th>RQ4</th>
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</thead>
<tbody>
<tr>
<td>1. Which of these statements applies to your reporting relationship within your institution?</td>
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<td>2. Regardless of formal liaison responsibilities, how many librarians are providing MBA and business focused reference/research support?</td>
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<td>3. Does your library have a formal role in the support of experiential field based learning curriculum at your school?</td>
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<td>4. How does the library work with your school’s experiential field based learning projects?</td>
<td>x</td>
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<td>5. During field based projects do most teams request assistance from librarians?</td>
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<td>6. When the librarian supports a team working on a field project, who is he or she typically working with?</td>
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<td>7. In general, does the librarian meet with the whole project team to provide guidance at least once during the length of the course?</td>
<td>x</td>
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<td>8. Is providing support and guidance for experiential field based learning projects included as part of the formal performance reviews of librarians?</td>
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<td>9. In the past five years have your job responsibilities changed to accommodate support for experiential field based learning projects?</td>
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<td>10. Are there positions other than business librarians that directly work with field based projects in the MBA program to support information gathering and analysis?</td>
<td></td>
<td>x</td>
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<tr>
<td>11. When you are working with students on field based projects how often do you help them with these information functions?</td>
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<tr>
<td>12. Please indicate who assists the MBA students in the following information related functions when they are working on experiential field based learning projects. (Check all that apply.)</td>
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<td>Survey or Interview Question</td>
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<tr>
<td>1. How are you involved with your school's experiential field based learning project curriculum? What courses requiring these sorts of projects do you teach?</td>
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<td>2. What sort of deliverables are required for these projects? How is this work evaluated? Who contributes to this evaluation?</td>
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<td>3. Tell me about the type of research students do on these projects? What is your assessment of the typical quality of the research done on these projects?</td>
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<td>4. Beyond your role as instructor, who else is involved in support roles for your program's experiential field based learning projects? How do these roles intersect in providing this support? Other than these formal roles, are there also informal roles supporting this curriculum?</td>
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<td>5. Tell me about the role of the librarians in your school's experiential field based learning pedagogy.</td>
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<td>6. Where in your organization is coordination of experiential field based learning located?</td>
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<td>7. Who is responsible for the overall pedagogical design and leadership of this learning? Who does this person report to in your organization?</td>
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<td>8. Have any changes taken place in the coordination and deployment of this learning in the past 5 years?</td>
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<td>9. What are your impressions of the influence of your school's experiential field based learning on students? In particular in</td>
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<td>10. Is there anything else with regards to MBA experiential field based learning pedagogy at your school that you would like to share?</td>
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<td>Phase 2: Six Case Studies</td>
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<tr>
<td>Interview Guide for Career Services Professional</td>
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<tr>
<td>1. What do you do in Career Services and how is your role connected with the MBA program?</td>
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<td>2. Tell me about what you know about experiential field based learning student projects at your school. Does your department play any role in supporting this instruction?</td>
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<td>3. What are your impressions of the influence of your school's experiential field based learning on students? In particular in developing their capabilities in effectively identifying and using information for decision making in their internships and jobs after they graduate?</td>
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<tr>
<td>4. Is there anything else with regards to MBA experiential field based learning pedagogy at your school that you would like to share? Particularly regarding the structures and roles that are in place to support it?</td>
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<tr>
<td>Interview Guide for Business Librarians</td>
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<tr>
<td>1. What are the formal and informal roles supporting experiential field based learning project curriculum at your school?</td>
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<td>2. What do different roles do and which of them are providing information related support?</td>
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<tr>
<td>3. If business librarians or other positions within the library have formal roles supporting your school's experiential field based learning projects, how extensively are they integrated in this curriculum? What learning activities are they involved with? Have job duties changed to accommodate this support?</td>
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<tr>
<td>4. What are your impressions of the influence of your school's experiential field based learning on students? In particular in developing their capabilities in effectively identifying and using information for decision making in their internships and jobs after they graduate?</td>
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<td>PwC site</td>
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<tr>
<td>Review of school website content.</td>
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</table>
Appendix B: Instruments and informed consent form

Online Survey for Business Librarians

Introduction

In recent years there have been calls for “rethinking” the MBA or Masters of Business Administration. One way schools are doing this is through team based experiential learning that is structured as consulting-type projects with a company or organization. Various support roles help students with this work. Business librarians are included at varying degrees, depending on the program. The purpose of this study is to identify the roles business librarians play in supporting experiential field-based learning projects at the top U.S. MBA programs. In a number of programs students are required to do these projects as part of the school’s core curriculum. Here are some of them: “Applied Innovation Course” [Haas UC Berkeley], “FIELD” [HBS], “First-Year Project course (FYP)” [Tuck Dartmouth], “Fuqua Client Consulting Practicum” [Duke], “MBA+ Micro-Consulting Projects” [McCombs U Texas], “Management Practice (MP)” [Goizueta Emory], “Multidisciplinary Action Projects (MAP)” [Ross U Michigan] and “Student Teams Achieving Results (STAR)” [Kenan-Flagler UNC].

Instructions: Please answer the following survey questions. If you have any questions about this survey contact Ann Cullen. Thank you in advance for your participation.

1. Which of these statements applies to your reporting relationship within your institution?
   ___ Report to, and funded entirely by, the business school.
   ___ Located in the business school but report to, and funded by, the central library administration.
   ___ Located within the main library and report to, and funded by, the main library.
   ___ Located within the main library and report to the central library administration and Business School Dean, but funded by the business school.
   ___ Other reporting structure. Please describe:

2. Regardless of formal liaison responsibilities, how many librarians are providing MBA and business focused reference/research support?

3. Does your library have a formal role in the support of experiential field-based learning curriculum at your school?
   o Yes, we have a formal role and are directly involved with curriculum planning and/or instruction for experiential field-based learning projects.
   o No, we don’t have a formal role.
   
   o 3a. If you said yes, which of the following pertain to your role? (Check all that apply.)
     ___ A librarian is a member of the field-based project course teaching team.
     ___ A librarian guest teaches one or more sessions in the field-based project course.
     ___ A librarian participates in designing field-based project curriculum.
     ___ A librarian is a member of a curriculum planning committee for field-based projects.
4. How does the library work with your school’s experiential field-based learning projects? (Check all that apply.)
   ___ On demand reference librarian help, as provided to any other library customer.
   ___ Creates generic web guides with lists of recommended secondary sources (e.g. company and industry sources), not tailored to specific projects.
   ___ Creates separate web guides with lists of recommended secondary sources targeted to the needs of each team project.
   ___ Provides optional workshops on research as part of experiential field-based learning projects support.
   ___ Provides required formal instruction on research as part of experiential field-based learning projects support.
   ___ Each project team has a designated librarian to provide guidance on locating and gathering information.
   ___ Librarians participate in judging project presentations.
   ___ Other ways librarians at your school are working with these projects? Please describe in the space provided:

5. During field-based projects when do most teams request assistance from librarians? [Select only one response.]
   ___ Beginning of the project.
   ___ Middle of the project.
   ___ Towards the end of the project.
   ___ Repeatedly throughout the length of the project.
   ___ There is no standard pattern on when they come for assistance.
   ___ They don’t come for assistance.

6. When the librarian supports a team working on a field project, who is he or she typically working with?
   ___ Usually one team member who is the designated research lead for the team.
   ___ Usually the whole team.
   ___ Usually different members of the team individually.
   ___ No standard way in terms of how team members interact with the librarian in getting support.
   ___ They don’t request assistance from librarians.

7. In general, does the librarian meet with the whole project team to provide guidance at least once during the length of the course?
___ Never
___ Rarely
___ Sometimes
___ Often
___ Always

8. Is providing support and guidance for experiential field-based learning projects included as part of the formal performance reviews of librarians?  Y/N

9. In the past five years have your job responsibilities changed to accommodate support for experiential field-based learning projects? YES/NO
   ○ If Yes, please describe these changes.

10. Are there positions other than business librarians that directly work with field-based projects in the MBA program to support information gathering and analysis? Y/N/Not sure
    ○ 10a. If you said yes, approximately how many people are in these different roles?
    ○ 10b. If you said yes, what are the job titles of these roles?

*Questions 11 and 12 – SEE NEXT 2 PAGES*
11. When you are working with students on field-based projects how often do you help them with these information functions?

<table>
<thead>
<tr>
<th>MBA Information related functions</th>
<th>Don’t know</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
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<tbody>
<tr>
<td>Breaking a problem apart - Ability to break apart a problem effectively to identify the questions that will need to be answered and where sources to answer those questions might be.</td>
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<td>Confronting information gaps – Approach what can’t be found constructively in terms of possible alternative ways to answer the question.</td>
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<td>Contextual Intelligence – Ability to identify facts connected with the past and/or present situation.</td>
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<td>Creative Intelligence – Use information gathered to consider or predict “what could be.”</td>
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<td>Problem Finding – Use information gathered to explore potential risks.</td>
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<td>Integrative Thinking – Consider multiple options from diverse sources and effectively synthesize information.</td>
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<td>Time management and resource allocation – Implement an effective plan for doing and delivering the work.</td>
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<td>Balanced use of types of evidence - Effectively balance the use of primary vs. secondary information sources.</td>
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<td>Credibility - Assess factors regarding the creators of information to determine its credibility.</td>
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<td>Evidential Responsibility – Document referenced sources and present information that clearly communicates and demonstrates authority and credentials concerning a point of view.</td>
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<td>Copyright - Appreciate issues around copyright and fair use in the proper use of information.</td>
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</table>
12. Please indicate who assists the MBA students in the following information related functions when they are working on experiential field-based learning projects. (Check all that apply.)

<table>
<thead>
<tr>
<th>MBA Information related functions</th>
<th>Librarians</th>
<th>Faculty member advising project</th>
<th>People at the project's company or sponsor organization</th>
<th>Student project team members</th>
<th>Not Supported</th>
<th>Don't know</th>
<th>Other support roles</th>
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</thead>
<tbody>
<tr>
<td>Breaking a problem apart - Ability to break apart a problem effectively to identify the questions that will need to be answered and where sources to answer those questions might be.</td>
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</table>
13. Is there any additional information you would like to add about experiential field-based learning projects and the role of business librarians at your school? Please provide information in the space provided:

14. This study will be investigating several MBA programs more in depth as case studies. Would you be interested in being interviewed as part of a more in depth case study? [Please note that your name will not be associated with your responses.]
   o Yes, I would be interested in participating. Please provide your name and preferred email contact address:
   o No, I would prefer not to participate.

15. Please identify the institution you work at from the following selections. [A list of the 2015 *U.S. News and World Reports* top 20 ranked Business Schools was listed below to choose from.]
Interview Guide for Professors

Introduction

In recent years there have been calls for “rethinking” the MBA or Masters of Business Administration. One way schools are doing this is through team based experiential learning that is structured as consulting-type projects with a company or organization. Various support roles help students with this work. Business librarians are included at varying degrees, depending on the program. In a number of programs students are required to do these projects as part of the school’s core curriculum. Here are some of them: “Applied Innovation Course” [Haas UC Berkeley], “FIELD” [HBS], “First-Year Project course (FYP)” [Tuck Dartmouth], “Fuqua Client Consulting Practicum” [Duke], “MBA+ Micro-Consulting Projects” [McCombs U Texas], “Management Practice (MP)” [Goizueta Emory], “Multidisciplinary Action Projects (MAP)” [Ross U Michigan] and “Student Teams Achieving Results (STAR)” [Kenan-Flagler UNC]. The purpose of this study is to identify the roles business librarians play in supporting experiential field-based learning projects at the top U.S. MBA programs.

Questions

1. How are you involved with your school’s experiential field-based learning project curriculum? What courses requiring these sorts of projects do you teach?

2. What sort of deliverables are required for these projects? How is this work evaluated? Who contributes to this evaluation?

3. Tell me about the type of research students do on these projects? What is your assessment of the typical quality of the research done on these projects?

4. Beyond your role as instructor, who else is involved in support roles for your program’s experiential field-based learning projects? How do these roles interact in providing this support? Other than these formal roles, are there also informal roles supporting this curriculum?

5. Tell me about the role of the librarians in your school’s experiential field-based learning pedagogy.

6. Where in your organization is coordination of experiential field-based learning located?

7. Who is responsible for the overall pedagogical design and leadership of this learning? Who does this person report to in your organization?

8. Have any changes taken place in the coordination and deployment of this learning in the past 5 years?

9. What are your impressions of the influence of your school's experiential field-based learning on students? In particular in developing their capabilities in effectively identifying and using information for decision making in their internships and jobs after they graduate?

10. Is there anything else with regards to MBA experiential field-based learning pedagogy at your school that you would like to share?
Interview Guide for Career Service Professionals

Introduction

In recent years there have been calls for “rethinking” the MBA or Masters of Business Administration. One way schools are doing this is through team based experiential learning that is structured as consulting-type projects with a company or organization. Various support roles help students with this work. Business librarians are included at varying degrees, depending on the program. In a number of programs students are required to do these projects as part of the school’s core curriculum. Here are some of them: “Applied Innovation Course” [Haas UC Berkeley], “FIELD” [HBS], “First-Year Project course (FYP)” [Tuck Dartmouth], “Fuqua Client Consulting Practicum” [Duke], “MBA+ Micro-Consulting Projects” [McCombs U Texas], “Management Practice (MP)” [Goizueta Emory], “Multidisciplinary Action Projects (MAP)” [Ross U Michigan] and “Student Teams Achieving Results (STAR)” [Kenan-Flagler UNC]. The purpose of this study is to identify the roles business librarians play in supporting experiential field-based learning projects at the top U.S. MBA programs.

Questions

1. What do you do in Career Services and how is your role connected with the MBA program?

2. Tell me about what you know about experiential field-based learning student projects at your school. Does your department play any role in supporting this instruction?

3. What are your impressions of the influence of your school’s experiential field-based learning on students? In particular in developing their capabilities in effectively identifying and using information for decision making in their internships and jobs after they graduate?

4. Is there anything else with regards to MBA experiential field-based learning pedagogy at your school that you would like to share? Particularly regarding the structures and roles that are in place to support it?

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Interview Guide for Business Librarians

Introduction

In recent years there have been calls for “rethinking” the MBA or Masters of Business Administration. One way schools are doing this is through team based experiential learning that is structured as consulting-type projects with a company or organization. Various support roles help students with this work. Business librarians are included at varying degrees, depending on the program. In a number of programs students are required to do these projects as part of the school’s core curriculum. Here are some of them: “Applied Innovation Course” [Haas UC Berkeley], “FIELD” [HBS], “First-Year Project course (FYP)” [Tuck Dartmouth], “Fuqua Client Consulting Practicum” [Duke], “MBA+ Micro-Consulting Projects” [McCombs U Texas], “Management Practice (MP)” [Goizueta Emory], “Multidisciplinary Action Projects (MAP)” [Ross U Michigan] and “Student Teams Achieving Results (STAR)” [Kenan-Flagler UNC]. The purpose of this study is to identify the roles business librarians play in supporting experiential field-based learning projects at the top U.S. MBA programs.

Questions

1. What are the formal and informal roles supporting experiential field-based learning project curriculum at your school?

2. What do different roles do and which of them are providing information related support?

3. If business librarians or other positions within the library have formal roles supporting your school’s experiential field-based learning projects, how extensively are they integrated in this curriculum? What learning activities are they involved with? Have job duties changed to accommodate this support?

4. What are your impressions of the influence of your school’s experiential field-based learning on students? In particular in developing their capabilities in effectively identifying and using information for decision making in their internships and jobs after they graduate?

5. Is there anything else with regards to MBA experiential learning pedagogy at your school that you would like to share?

6. Could you suggest the names of a faculty member, preferably who teaches an experiential field-based learning project course as well as a career service professional affiliated with your MBA program that I could contact for this research?
Informed Consent Form for all interviewees

Title:
Developing 21st Century Business Leaders: The role of librarians in field-based experiential learning in MBA education

Principle Investigator: Ann Cullen

Institution: Simmons College

Contact Information: 646-379-2617; ann.cullen@simmons.edu

The purpose of this proposed study is to identify the various roles business librarians play in experiential field-based learning activities at the top U.S. MBA programs.

You are invited to participate in this research which will involve asking questions about your observations of and interactions with experiential field-based learning projects and secondary information gathering at your school. Your involvement consists of agreement to participate in a 1/2 hour electronically recorded interview where you will be invited to share your thoughts and impressions. This research does not foresee any reasonable risks and discomforts that may result from participation. This research is being carried out in part to fulfill the requirements of my dissertation for the doctoral program at the Simmons College School of Library and Information Science.

Participation is completely voluntary. You may discontinue your participation at any time without penalty of any kind. A list of interview questions will be sent to you at least a week before the interview date to review.

Although there is no monetary compensation for participating in this study, it provides the potential benefit for you to make a contribution to the better understanding of this important research concern.
To protect against any risks all information provided will be kept strictly confidential. While direct quotes may be used in reporting, individual names will not be associated with remarks. Only the researcher will have access to the interview notes. However for instructional purposes portions of the notes of the interview transcript conducted for this research might be shared with a member or members of the dissertation committee advising this study. All researcher notes will be stored in a locked file cabinet in the researcher’s office and destroyed within one year of the study’s completion.

If you have any questions about this study or if you have any questions regarding your rights as a research participant, you may call the Simmons Institutional Review Board at 617-521-2415. You may also contact Ann Cullen at 646-379-2617 or Dean Eileen Abels, at Simmons College, tel. 617-521-2882.

Please sign below and send a scanned copy back to me to be counter-signed. I will then send that final version to you. Keep a copy of this consent form for your records.

Thank you very much for your participation in this study.

Agreement to Participate in Research

I have the read the contents of the Informed Consent Form and have had the opportunity to discuss any questions or concerns regarding this study. I agree voluntarily to participate in the study described.

Signature of Participant _________________________________     Date ______________

Signature of Researcher _________________________________    Date ______________
Appendix C: Summary of six case studies

The following are summaries of the six programs examined as case studies and how they provided support for FBL. The data included in these summaries was derived from the website review as well as from interviews conducted with respondents from these institutions.

MBA Program 1 (MBA1)

School Background Information

**Brief overview of the full-time MBA program.** This two-year, full-time program was located in a major metropolitan area. The core curriculum included two full-term courses and eight half-term courses taken in the first year with electives in the second year. Most students completed an internship in the summer between the first and second year.

**Business librarians function.** This school had a business library located in the business school with four business librarians. The head librarian reported to and received funding from the central library. Business librarian duties included providing reference assistance for students with their work on class research projects or, as part of students’ job search process, researching background information on companies or industries for interviews and career exploration. This library had recently created a “Starter Guide” that was posted to all the core course pages in this school’s course management system. This guide served as an introductory guide for the MBA students highlighting the key resources they needed to know about in the business library.

**Career services function.** Career services professionals had roles coaching students as well as identifying companies to recruit their graduates. Most of the individuals in this department specialized in specific industry sectors. This career services department also included an individual responsible for their “video department” creating videos for students with tips for job searches and examples from the field of the work experiences of alumni.
**Faculty function.** The faculty members at the school were a mix of tenured, tenure-track, and adjunct faculty. Field-based learning courses were often led by adjunct faculty. In addition to the full-time MBA program, this school had other versions such as an Executive MBA program and an accelerated MBA option.

**School’s Approach to Experiential Field-based Learning**

Field-based learning (FBL) was not required at this program and was offered in several elective classes. FBL was required at this program about 12 years ago until student complaints about being required to take an FBL course led to the course being removed from the core course load. One interviewee indicated that this also might have occurred because of the intensive workload on faculty to lead these sorts of courses. She also indicated that she believed there were fewer of these types of courses in the elective offerings now than there used to be. Of the FBL courses in this program, many had an entrepreneurship character. This researcher was unable to identify any norms about deliverables and modes of evaluation of these projects.
Learning Support and Guidance for FBL

The librarians were not formally connected to FBL. When invited, they would give presentations to an FBL class for about a half hour. The librarians would focus these presentations on sources available to help students with research on the real-world projects they had been assigned in these courses. The librarians would create a LibGuide that they posted in the school’s course management system of recommended resources. The librarian indicated that students contacted the librarians when they needed help. There was no formal structure for the librarians to meet with student teams for FBL projects. The librarian indicated that they typically would only meet with one member of the student team to provide assistance. She estimated that with these classes, they would provide assistance to 25% of the teams. They had never conducted a survey, but she assumed that students did not contact the librarians for assistance because the LibGuide included most of the information needed by the students. “They’re kind of happy and if they get stuck they come to us,” said the librarian. In general, librarians do not work very closely with MBA students on these projects. The business librarians do not received information on the number of student teams and the students in those teams.

The career services area does not have any direct role with FBL. Instead, the career services staff helped students promote what they had learned from the FBL course as part of their job search process. Faculty members were responsible for developing and managing the courses. No other specifics were identified from the interviews conducted of other roles involved in FBL. A review of this school’s website indicated that alumni also often played supporting roles on the FBL projects. This program also recently created a role that reported directly to the dean in charge of identifying partnerships for the school such as sponsors for the student projects.
Organization of FBL and Models of Delivery

Very little on the specifics of the organization behind the structure of this learning was available at this program. The only central organizing concept was that a unified label had been assigned to this specific type of course at this school. The interviewees did indicate, however, that experiential learning was an important initiative for the school that originated from the dean’s office.

Outcomes of FBL on Students and Graduates

Both interviewees thought outcomes from these courses were good. The career services professional indicated that he had definitely seen benefits to students doing these courses and getting jobs. He also felt these courses were helpful in terms of adding new skill sets to student resumes and obtaining practical experience in a skill area that was valued in companies that students were considering for jobs. The respondents from an information perspective could not identify any specific examples they had seen at their school where FBL project learning had provided significant outcomes.

MBA Program 2 (MBA2)

School Background Information

Brief overview of the full-time MBA program. This full-time MBA two-year program was located in a rural setting. The entire first year included required courses with the courses grouped by half semesters or quarters. An FBL course was a required class in the second half of the spring semester. This program also had a “global immersion” requirement that could be fulfilled by taking one of the two globally oriented FBL elective courses. Students typically only took electives in their second year. Between their first and second year, students completed an
internship at a company or organization. According to one interviewee, this program had the same curriculum for a long time. This school had only a full-time, two-year MBA program.

**Business librarians function.** This school had a business library that was located between the engineering and business schools and was funded by and reported to both schools. Despite this reporting arrangement, this library’s staff was also involved with a lot of work with activities of the central university library. There were six librarians. Although the team worked together, half of them technically were business librarians and the other half were engineering librarians.

**Career services function.** Career services professionals had roles in coaching students and identifying companies to recruit their graduates. Most of the individuals in this department specialized in specific industry sectors or functional areas such as consulting or marketing, and they had work experience in their area of specialization. For example, one had been in investment banking and the other in the consulting and entertainment sector. One of the respondents spoke about making use of their network of professional contacts as part of the job searching and networking assistance to MBA students. One interviewee was also an alumnus of the program.

**Faculty function.** Tenured, tenure-track, and adjunct faculty taught courses in this program. A tenured faculty member led the FBL course, although adjunct faculty members served as the faculty coaches for each team.

**School’s Approach to Experiential Field-based Learning**

The faculty respondent said that his school had been doing experiential field-based learning projects since the 1970s. The primary job of the faculty member currently leading the core FBL course was designing the structure of the course curriculum and managing the faculty
advisors to coach each team. This faculty member’s subject discipline was in decision science. There were nine faculty advisors. The lead faculty member hosted a weekly lunch meeting with all of the advisors to check on their progress and “to keep them running the course in a similar way because our students are very sensitive to differences in that way” (MBA2 Professor).

This was a required course in the second part of spring term (nine weeks) in the first year. All the students work on projects in teams of five; this meant that in a given course, there would be 55 - 60 teams. Students chose their own teams. Approximately 100 potential projects were presented from the sponsors to the students, who selected about half of the possible projects. Each team had a faculty advisor, also called “faculty coach,” who would be their principal faculty member for the course, meet with students weekly to coach them through the process, and grade their work. All projects required quantitative and qualitative research elements and were generally marketing projects. This school did not charge sponsors for the student work which could include both American and international projects.

There was a kick-off meeting for the FBL course at the end of March. Librarians were introduced at this time. The MBA students received their project assignments at the end of February, and some started working with their librarians as soon as they received their projects. The teams were assigned to a librarian but were not required to meet with their librarian. The faculty member did not think that all projects lent themselves to needing assistance from the librarians. He said that only 15 to 20 teams needed this kind of help, but those that did really gained a lot from a librarian’s assistance.

In addition to their PowerPoint deliverable to the client, students were required to write a team reflection paper on what they had learned not only from the project itself but the process of working with their team. Teams were not only graded for their presentation to the sponsor but
also on how they worked together as a team. Each team collaboratively wrote a debrief report on their work together in addition to each student writing an individual reflection paper.

The current faculty lead had redesigned the required FBL course to include “consulting methodology” that incorporated the type of techniques for solving and working on complex problems used by the leading management consulting firms such as McKinsey & Company and Boston Consulting Group. There were a number of interim deliverables required of project teams such as a one-page description of the problem, a work plan, and drafts of interim deliverables. There was an elective winter term class on the consulting method and problem solving that an estimated 25% of the MBA class attended. The faculty member felt that this course was great preparation for the required FBL course, although many students did not think it was necessary, particularly those who had previously worked in consulting.

This program also offered two global FBL courses. They were team-based courses that were supported by business librarians and other roles. One of the respondents said that students typically would conduct most of their research before travelling to the country where the project was based:

[This course]…is a second year elective that they can sign up for. This is usually [with] companies [who] pay to have a student team come and do consulting work for them. There’s no cost to the student even though they might be flying somewhere else in the world. And they usually are three or four weeks in phase one, which is mostly secondary research on campus, and then there’s a three week in country piece of consulting which will be done at the client site usually. And then finally the other piece of experiential learning [that]…is somewhere between sort of a tourist trip and a class in that students will go to a foreign country accompanied by a professor. There will be pre-work for them to do to understand the culture and the topic areas that they’re to learn about, and then the professor will take them on a series of visits to both companies and some cultural sites as well. They really get an immersive experience of what it’s like to be a business leader in that particular country. (MBA2 Career1)
Learning Support and Guidance for FBL

There was an administrative director for the required FBL course program who was responsible for identifying viable projects that met the course’s goals. The director had an assistant who helped with managing the logistics for these projects, and she worked very closely with the faculty lead on the administrative aspects. The faculty lead was responsible for curriculum design, and was a faculty coach for five student teams. Every team has a faculty coach, and some faculty advisors would coach more than one team. On an as-needed basis, this school hired experts from the faculty and the community to advise student projects. One career services professional also served as a faculty coach for a student team, and had also served as a
coach for one of the global FBL courses. He was the only person in the career services department also serving this role.

Six librarians supported FBL teams with one librarian assigned per team. The library director supported some teams, and some librarians supported as many as 12 teams. One librarian would review all FBL course project descriptions and then assign teams to different librarians. For about 2 years, all the student teams were required to meet one time with their librarian; however, this was no longer required because the program felt “requiring too much stuff was taxing the students” (MBA2 Librarians). Librarians also made Libguides to support teams. Librarians were also assigned to teams for the second year global FBL elective course. They typically supported 12 of these teams in the fall term of the second year.

**Organization of FBL and Models of Delivery**

The current faculty member who was head of the core FBL course was in charge but there was no official person to whom he reported. He was a tenured professor who had been at the school for many years. He wrote an annual report on the course for the dean. He did so only because he felt it was the right thing to do and because he was managing a budget for the course, although he was under no obligation to do this. At his institution, faculty had a great deal of autonomy. In 2014, the school designated an established place in the business school where the administrators of the core FBL course as well as the two global FBL elective courses were located. This brought together the administration of three business school experiential learning project offerings in one place. Only administrative staff members, and not faculty, were assigned to this new location.
Outcomes of FBL on Students and Graduates

Everyone interviewed felt the FBL course was beneficial to most students. Said one respondent:

So five fantastic, five real disasters and in the middle, they almost all do really good work for a real person and I think they learn a fair amount about client management... getting out of yourself to listen to what her problem is and what she is struggling with, right, and kind of, I don’t know the right psychological terms, but getting enthused by working with her and helping her and helping them and that company or that organization or whatever, and coming up with ideas and supporting them with good thinking and good data. And if we’re really lucky, even having them change, even have them adapt, adopt our recommendations” (MBA2 Professor).

Librarians distributed surveys to determine whether student experiences with librarians were positive or negative. However, in this program, there had not been any systematic efforts in gathering data on the information related outcomes of student work with the FBL course.

MBA Program 3 (MBA3)

School Background Information

Brief overview of the full-time MBA program. This two-year full-time MBA program was located in a large city. The curriculum was structured so that all the core courses were scheduled in the fall semester of the first year. The fall courses were organized within three blocks. Some courses such as economics spanned one block, while others spanned two. The FBL course was the only course to span all three blocks. The only additional required courses in other semesters were the FBL elective course in the spring semester of the first year and a leadership course required in the second year of the program. Between the first and second years, these students typically completed an internship in a company or organization.

Business librarians function. The business library was located within the main library with a team of five business librarians who reported to the university librarian with a dotted line reporting to the Business School as well. The business library received its funding from the
business school. The team worked together to provide reference support for job searches and student research projects. Each librarian also served as a liaison to different programs or departments such as the full-time MBA liaison or the liaison to the career services department.

**Career services function.** Career services professionals had roles coaching students and identifying companies to recruit their graduates. Most of the individuals in this department specialized in specific industry sectors or functional areas such as consulting or marketing. The head of the career services department reported to the same person as the Associate Dean for FBL project courses.

**Faculty function.** Instruction was provided by tenured, tenure-track, and adjunct faculty. In addition to the full-time MBA program, this school also had other types of MBA programs such as an evening MBA program for working professionals in which all classes were scheduled in the evenings or weekends and an accelerated MBA program. The school also had a Bachelor of Business Administration (BBA) program.

**School’s Approach to Experiential Field-based Learning**

In this school, FBL projects were required in both the first and second semester in the first year of the full-time, two-year MBA program. In the fall semester of the course, an FBL project was combined with course work based on the consulting method. The project for this course was a simulated case study in which student teams separately applied the methods they had learned in class to solve the client’s problem as if it were a real business. In evaluating work along the way, the teaching team took on the personas of a business professional from the fictitious company in evaluating the work of student teams.

The teaching team for this course included the lead faculty member who was also the Associate Dean for FBL at this school, a communications faculty member, and the business
librarian who was the liaison to the full-time program. Students were assigned to teams which they worked with in this class and other classes throughout their fall semester. Mid-way through the course, the students presented their recommendations for this project. As a final learning experience, students were assigned to 30 different teams for a one-day intensive experiential activity in which the team was given a simulated company problem to solve in four hours. At the end, the teams were expected to present their team’s recommendations.

In the spring semester, the MBAs were required to take another FBL course. They were able to choose among six course elective options in different topics that focused on projects with actual clients. For example, one elective course focused on the financial valuation of a prospective business deal while another focused on market opportunity and promotion analysis. Most of the teams presented their findings as part of a team exercise and also at a one-day event at the end of the semester. The submissions were judged by faculty and staff, including business librarians from other areas in the school, alumni, and business professionals from the community.

Many of the projects included one client project per student team. The students bid on the potential projects. In other cases, the project was structured to allow either multiple teams or the entire class to work on the same project. This second type of format allowed the class to see the different approaches and eventual recommendations to solving the clients problem from each team.

Guidance for gathering information was included as part of the instruction and structure of deliverables in the core fall class. The business librarian was part of the teaching team and provided instruction based on frameworks designed for the course and readings called “briefs,” which were written with the Association Dean for the program. The business library director also
supported some teams. Structure was built into the program so that all teams scheduled appointments with one of the business librarians for guidance. The full team was required to meet with the librarian at least once.

The deliverables for the core course included a final slide deck and interim deliverables that demonstrated the teams’ work plan. The majority of these deliverables were graded by the lead faculty member but some, particularly the final team presentation, had different components evaluated by all three members of the teaching team. The business librarians provided input on the secondary research aspect of these presentations. When student teams presented their classmates were given the opportunity to evaluate the team presentations through a ranking system. At the end of the course, each team completed an evaluation form in which they identified the strengths and challenges they faced in their work together. The lead faculty member would review this material for additional insights in the grading process.

In the elective FBL courses, the deliverables included a presentation which was graded by the lead faculty. The faculty decided what other deliverables were required from the teams during the semester. Some of these classes mixed classroom instruction with field-based project work, while others completed most work outside of the classroom.
Learning Support and Guidance for FBL

In the case of the core FBL course, the lead faculty, communications faculty member, and business librarian were the teaching team in which all played formal support roles. Each team was assigned a second-year MBA coach who would provide advice as needed, particularly with issues involving team dynamics. These second-year MBA coaches had received additional training to provide this support.

Alumni and other business professionals were also often available as needed for guidance to students. This was the case with other faculty in the program as well. For example, those with marketing expertise might be contacted by teams for assistance with a particular part of their project in that area. Alumni, business school staff, and faculty also served as presentation judges when student teams presented their recommendations. Career services professionals did
not play a formal role in this learning, beyond working with students on career goals and the development of skills of interest to employers.

The business librarians taught a business intelligence workshop which was required in the core FBL course. They also met with student teams, created together detailed resource guides for the student projects, served as presentation judges, and evaluated final presentations with a specially designed rubric for scoring information-related components. The librarians also summarized observations of the team’s work on research and shared it with the faculty as part of the evaluation process.

**Organization of FBL and Models of Delivery**

Organizationally, the leader of the program was the Associate Dean who was responsible for overseeing all the FBL courses at the school. This individual reported to the Vice Dean for Programs who then reported to the Dean. The Associate Dean’s assistant and another staff member assisted with the administrative and logistical aspects of this program. In this smaller school, assistance came from other staff and faculty areas as needed. The Associate Dean had been a professor in academia for over 20 years but had also worked in consulting. The Associate Dean was also responsible for the design and teaching of the FBL curriculum in the core course and working with the faculty who taught the FBL elective courses to assure that their courses included references to the consulting methodology and problem solving content in the fall core FBL class. This role was also responsible for the coordination of identifying potential project clients.

Most of the clients who provided projects paid fees for the project work of the MBA students. In some elective courses, clients were not charged although this was changing. This program was the newest program in the study, having been established in 2009. It had taken a
few years to determine what the best structure was for the FBL course. The establishment of a formal Associate Dean leadership role in 2012 for this program helped the school implement the current structure that was “still a work in progress” (MBA3 Professor).

**Outcomes of FBL on Students and Graduates**

The interviewees related how difficult it was to accurately assess the outcomes of this type of learning since the real student learning could only be tested after the students graduated and were in the workforce. Respondents reported that a number of students who returned from their summer internships acknowledged how the course had helped them. Some alumni had said the same.

A form included in the fall semester core FBL course evaluation materials asked students about their experience with the business intelligence instruction, work in the area of BI throughout the course, and their skills in business information gathering. This form was distributed to each class for the past three years with a response rate each time between 90 to 100%. In all surveys, over 70% of the MBAs said these skills had increased. The other two options were “stayed the same” and “gone down.” Very few said “gone down” although in those instances, the students comments indicated that with greater awareness of the resources available and the need to effectively gather information, they realized that they knew a great deal less about information gathering than they thought they did.

**MBA Program 4 (MBA4)**

**School Background Information**

**Brief overview of the full-time MBA program.** This program was a two-year, full-time MBA program located in a major city. Core classes were held in the first year and elective
classes in the second year, with students typically completing an internship in the summer in
between those years.

**Business librarians’ function.** There were three business librarians who also assumed
standard reference duties for student career and class research projects. The librarians were
located in the business school, reported to the central library, and were co-funded by the central
library and business school.

**Career services function.** Career service professionals had roles in coaching students as
well as identifying companies to recruit their graduates. Most of the individuals in this
department specialized in specific industry sectors or functional areas such as consulting or
marketing. Career support positions were organized by different sector verticals focused on
career advising and corporate outreach in those sectors.

**Faculty function.** Instruction was provided by a combination of tenured, tenure-track,
and adjunct faculty. In addition to the full-time MBA program, this school also had other types
of MBA programs such as an evening MBA program for working professionals in which all
classes were held in the evenings or weekends.

**School’s Approach to Experiential Field-based Learning**

This school had offered some form of FBL project learning since the 1967. Every MBA
student was required to work on a FBL project. Most MBA students completed the FBL course
in their second year to complete this six month requirement. They could begin in the fall or
spring. There were typically 65 teams, each with 4 to 6 students, which held weekly team
meetings with the client and faculty advisor. There was one faculty advisor for every one to
four teams. Of the 18 to 20 advisors, a third were academics and two-thirds were adjunct faculty.
or lecturers with business experience. The program had recently structured the schedule so that students worked on these projects on Wednesdays.

The professor interviewed for this study said that “….the quality of the research is quite good” and that the business library was very active in supporting the secondary research component of this FBL course. The student team work was graded by their faculty advisor. Evaluation was based on peer assessment, the quality and quantity of research, team work and if the recommendations added value to the client.

The majority of the students completed the main FBL course, although they also had the option of a business creation course in which they could start their own business. A few students completed this requirement by doing an independent study. The program also offered a specialized field elective for students who were interested in consulting in their first year. This self-selected group included about 20 students across four projects that were sourced by the students who were solving a business problem for real clients.
Learning Support and Guidance for FBL

The roles other than the faculty team advisors who supported these projects included the team effectiveness advisor who collected a personality profile of team members and coached them on teamwork issues, and a communications faculty member who advised the teams on writing and presentation skills. There were also various workshops presenters who described tools and methods appropriate for these projects such as interviewing for primary data and conjoint analysis. Attendance at these workshops was not required; it was left up to the teams to determine if they thought the subject would be helpful to their team’s project. This school also had alumni mentors who were recent graduates and who were available as needed as resources for teams.

Three business librarians supported students working on these projects. A librarian was assigned to each team, which was required to meet with that librarian early in the course to review sources relevant to their project. Each librarian created a project-specific LibGuide of resources for the teams. The business library director also supported some teams. After the librarians met once with their teams, the teams often returned for help with their research. The business library also had a coordinator position that served as the liaison with the FBL course.

Organization of FBL and Models of Delivery

The academic director for the FBL course designed the curriculum. He had been in the position for two years and reported to the Academic Dean for Field Studies Programs who reported to the Academic Dean for the business school. (There was also a “non-academic” Dean). The structure of his predecessor’s role was similar to his. He had been in academia for 20 years, switched to work at a major U.S. consulting firm for 20 years, and had just recently
returned to academia. This program also had a director of the FBL course who was responsible for the administrative, non-curricular parts of the program and team project logistics.

Companies paid a fee to participate in the FBL core course. Fees differed depending on the size of the company or organization. The faculty member shared that over the past five years, the program was better organized, and that they now had a waiting list of clients that wanted to submit projects to this program. A new head librarian of the business library started three years ago. Since that time, she had been working to better integrate the business librarians in the FBL course. This school also had a resource bank of examples of past successful projects, as well as guidelines and video lectures on a variety of topics that students could review to support their work.

**Outcomes of FBL on Students and Graduates**

The respondents said it was difficult to evaluate the outcomes of this type of learning. They had received ad hoc feedback from students who returned from internships and alumni who felt the learning offered value and prepared them well for facing work demands. The faculty lead indicated that the program had been growing and had become very popular with potential sponsors for projects in the past five years. This, he believed, indicated that the learning had positive outcomes and that their graduates appreciated the practical knowledge. It was assumed there were also positive gains in the information skill area, although the librarian spoke of her frustration in helping students on these projects. The librarian was unsure if the MBA students always “got it.” She said she wished the business librarians could be more integrated to provide instruction on these skills, but indicated that it had not been part of the library’s culture in the past. She was hoping that eventually, she could change this but was still new in her role at this school.
MBA Program 5 (MBA5)

School Background Information

**Brief overview of the full-time MBA program.** This two-year, full-time MBA program located in a smaller city offered the core courses in the first year and electives in the second year. Students who completed the core FBL class in the spring of their first year worked on the course exclusively for seven weeks.

**Business librarians’ function.** Of the nine librarians in business library, six supported the FBL project teams. All programs at their school have some type of FBL project required course experience except for the part-time MBA program. For almost all of these FBL courses, a librarian was assigned to each team in that course. The school was very focused on action learning, and there were few times in the year when the business librarians were not supporting project teams for an FBL course in one of the business school’s programs.

**Career services function.** Career service professionals had roles coaching students as career coaches, as well as identifying companies to recruit their graduates. Most of the individuals in this department specialized in specific industry sectors or functional areas such as consulting or marketing.

**Faculty function.** Instruction was provided by a combination of tenured, tenure-track, and adjunct faculty. In addition to the full-time MBA program, this school also offered other types of MBA programs such as an evening MBA program, executive MBA, part time MBA, global MBA, and weekend MBA. The school also had a Bachelor of Business Administration (BBA) program.

School’s Approach to Experiential Field-based Learning
The required FBL course in the full-time MBA program always took place in the first year of the full-time MBA program in the second part of the second semester. For those seven weeks, the MBAs worked exclusively on this course. Many of these projects were outside of the United States. The MBA students were assigned teams, and were able to bid on projects. Membership on a team was dependent on the student’s interest in that project. The degree of difficulty varied with the projects and there were limitations on the amount of work that could be accomplished given the time constraints. Typically, there were approximately 80 team projects each spring.

The faculty graded projects and overall team performance, with a major focus on the quality of the final client deliverable. They did not grade the project on the quality of the team interactions. This FBL course started in 1992 in the full-time MBA program. They included FBL project courses in other MBA programs but organized them differently.

Level of Formality of Roles at MBA Program 5

1. Chief Learning Officer - Faculty Director of Action Based Learning (Across all business school programs not just MBA)
   - Career Coach and Outreach

2. 2nd year MBA student peer advisor for each team (these individuals have to participate in a coaching course). Referred to in one of the interviews as "MBA Two Coach"
   - One faculty member as research resource to conduct for interview protocols
   - Primary Research Coach

3. Managing Director
   - Business Librarians also called "Secondary Research Consultants" (Each team assigned one)
   - 5 full-time faculty advisors for each team project - one "non-travelling" and other "travelling" as liaison to organization sponsoring the project. Both do grading
   - Communications Consultants

Student team
Learning Support and Guidance for FBL

There was a managing director of the FBL course, who had assistance from various roles. Students were assigned to groups of four to six team members, with each assigned two faculty advisors, and some assigned coaches. Each team also had a communications faculty member who supported them. Some advisors were full-time faculty and some adjuncts. Each team was also assigned a second-year MBA student peer advisor. The two full-time faculty advisers assigned to each project team were called the “travelling advisor” and the other the “non-travelling advisor” (MBA5 Professor). The travelling advisor was the liaison to the organization sponsoring the project. Typically, both faculty advisors were tenure track, although one tended to have more experience with the FBL course. There were many formal roles to support the course because of the large number of projects. For example, there were administrative roles in the program dedicated to finding projects for the students.

The career services department did not have a formal role with the FBL course, although they trained 50 second-year MBA students to serve as peer career coaches and used an experiential learning and role playing approach in this training. This exemplified how this school broadly espoused action learning in many facets of its MBA experience. The school also had a learning officer who observed the work of teams and whose job was to be alert to the tacit learning taking place, and to try to codify and assess lessons learned to share with the teaching group for this course.

Business librarians were assigned to each team and had a formal role with the curriculum through team meetings. There were five and a half business librarians supporting teams from the FBL course. They were very much engaged and familiar with the planning for the FBL course. Typically, each librarian supported from 14 to 18 teams. The business library director also
supported some teams. Librarians would attempt to meet with all their teams the first week of the project. After that time, they scheduled meetings with teams as needed. In some cases, they might not hear again from teams that did not need much secondary research. Approximately, 25% of the teams needed very little librarian support, 25% needed a high level of support and the remainder were somewhere in between. When projects shifted midway, students often returned to their business librarian for help in finding new data.

**Organization of FBL and Models of Delivery**

There was a faculty committee that reviewed all project proposals from sponsors to determine which proposals were acceptable for student bidding. Some projects were removed before the student bidding process because the committee believed they were not viable. After this culling process, there would be approximately 200 projects available for student bidding. Since companies knew that there was a 50% chance that students might not select their project, they worked harder to create “….a good project compelling to MBA students” (MBA Professor). There was no charge to sponsors for these projects but they were asked to cover student costs. The school had a fund for projects from nonprofit organizations to cover these costs.

To provide guidance and consistency in FBL facilitation, there was an apprenticeship model for leadership and advising roles within the FBL project course. This was a distinctive feature of this program in which there was a group of experienced faculty who had been working with the course for years and who would coach faculty and others new to this pedagogy. The professor mentioned that these individuals’ knowledge often prevented problems from occurring with sponsors, student team dynamics, and other issues that could emerge with these projects. There was also a faculty director for action-based learning. This was a recent development at
this school. Having a person “in charge of action-based learning across all programs. We haven’t had that before” (MBA5 Professor).

All roles that supported the FBL course gathered together at end of the course for a debriefing meeting to share lessons learned. There also had been many task forces over the years to examine the FBL courses effectiveness, evaluate the program, and determine what to change and make better. As one respondent commented, “….we’re forever looking at ourselves” (MBA5 Professor).

Outcomes of FBL on Students and Graduates

This school surveyed alumni who had taken the FBL course and found the feedback to be favorable. The professor agreed that outcomes of this learning were difficult to assess, but given the program’s growth, longevity, and popularity with students and project sponsors, he believed these were indicators of good outcomes. The librarians received positive feedback on their research support for these projects. The business librarian felt that “….we’re building students who appreciate and understand the complexity of the information landscape” (MBA5 Librarian).

MBA Program 6 (MBA6)

School Background Information

Brief overview of the full-time MBA program. This full-time, two-year MBA program located in a large city had a fairly flexible structure for required courses. The core courses were bundled into the students’ first year fall semester. Students who wanted to take an elective in their first fall semester had that option if they had prior experience that warranted an exemption from a required course. For most students, electives were only taken in the spring semester of the first year and in the second year. Between the first and second years, the MBA students
typically completed an internship at a company or organization. This program promoted itself as a program that offered students flexibility in their choice of courses.

**Business librarians’ function.** The business library was located in the main library, and reported to and was funded by the main library. There were six business librarians who provided reference services for the students in the business school for both career and course research support.

**Career services function.** Career services professionals had roles in coaching students and identifying companies to recruit their graduates. Most of the individuals in this department specialized in specific industry sectors or functional areas such as consulting or marketing. The MBA career management office, organized by industry verticals, included seven advisors. For each industry, there was an advisor for students and one who served as the employer contact person or relationship manager.

**Faculty function.** Instruction was provided by tenured, tenure-track, and adjunct faculty. In addition to the full-time MBA program, this school also had an executive MBA program and a Bachelor of Business Administration (BBA) program.

**School’s Approach to Experiential Field-based Learning**

The school had several FBL course opportunities. The primary and most popular course was an elective taught for over 20 years by the professor interviewed for this study. The course focused on team meetings, and there was no classroom learning. There were no regularly schedule times for the team meetings. In addition to meeting with the professor each week in person or by phone for about 45 minutes, each team was required within the semester to meet with two “area of expertise” faculty who were experts in an area relevant to their project. Most of the projects for the main elective FBL course were based in the U.S. The clients were called
“hosts”; 40% of the host organizations had worked with this course in the past. The course was offered in the fall and spring with approximately 35 teams with 4 to 6 students in each team. The professor believed that of the courses the school offered “….if not the biggest, we’re one of the biggest” (MBA6 Professor).

In this course, the program attempted to limit the team interaction with the host. The professor believed that by keeping the student teams at a distance, the teams were more likely to offer a fresh outlook in their recommendations. One student per team was the host contact. Students chose the projects, most of which lasted a semester. Some projects, however, lasted one to two years, with a different team completing a part of the project work each semester. The professor said that for the past three years, he had also offered a version of this course in San Francisco. His role included weekly meetings by phone, with an introductory session, and observation of the final project presentations at the end of the course in San Francisco.

Part of the structure of the FBL course was a “mid-project review” about five to six weeks into the project when the team met with the host to review the project’s progress. After the project was complete, the professor evaluated the work and awarded the grade for the course work to the team, and not the individual students. Included in this was an intra-team participation evaluation. Typically, the final deliverable was a 25 to 35 minutes PowerPoint presentation to the host. Deliverables could also include other forms depending on the project. In the past these had included a pitch book for a real estate project in Costa Rica and a spreadsheet tool of the factors a company must consider for an international expansion.
Learning Support and Guidance for FBL

If several teams were working on a project in the same area (such as brand loyalty programs or social media promotion), the professor of the FBL course would arrange for the teams to meet and share what they had learned. The formal roles supporting this FBL course were the occasional peer student help, the professor leading the course, the area of expertise faculty available on demand, and the associate director for the FBL course. Librarians did not have a formal role with the FBL course or any other FBL type courses. Teams were not required to meet with a librarian. However, the professor of the FBL course often recommended that the teams meet with a librarian. The professor valued the expertise of the librarians, but felt it was the students’ responsibility to reach out to the librarians for this support.

Organization of FBL and Models of Delivery
Administration of the FBL course was the responsibility of the lead faculty member who advised all teams and the FBL course associate director who was responsible for most of the administrative and logistical support. The faculty advisor met with all 35 teams once a week. Since the logistics could be quite complicated with the varied schedules of team members, the associate director helped to arrange these weekly team meetings. There was never an occasion when all the students in the course met as a group. Each semester there were approximately 180 students. The program charged project hosts a fee for this project work, which was deposited in a general fund. However, the program did not charge hosts that were alumni of the school who provided projects or non-profit organizations. This FBL course was created 20 years ago as part of a new curriculum in the school with a requirement for field-based projects. The FBL course was part of the core curriculum for five years, and then was changed to an elective.

Another FBL elective course cited in the interviews at this school was their 1.5 credit global consulting practicum course. This included students from other non-U.S. MBA programs and was managed by the school’s marketing department. The course used adjuncts to teach this course, which included travel to another country. There were also outside consultants that taught in this course, which had a much larger budget and more staff involved with administration.

**Outcomes of FBL on Students and Graduates**

Similar to other programs, the interviewees related how difficult it was to accurately assess the outcomes of this type of learning because the learning would not really be tested until the graduates were in the workforce. In general, the respondents believed that the practical application of the skills that students acquired while working on real projects was helpful. The faculty member interviewed at this school said that the course was also a great way to connect alumni with the school. Since there was a limited involvement of the business librarians with
this FBL elective course, the interviews offered little to evaluate the information related outcomes of this pedagogy.
## Appendix D: Coding for data analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th># of Quotations for this code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Background Information (GEN)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MBA Program overview - in general</td>
<td>GEN-MBA</td>
<td>16</td>
</tr>
<tr>
<td>Respondent Background</td>
<td>GEN-Respondent</td>
<td>16</td>
</tr>
<tr>
<td>Business Librarians Function - in general</td>
<td>GEN-BUSLIB</td>
<td>10</td>
</tr>
<tr>
<td>Career Services Function - in general</td>
<td>GEN-Career</td>
<td>29</td>
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<tr>
<td>Faculty Function - in general</td>
<td>GEN-Faculty</td>
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<tr>
<td>Business School Culture</td>
<td>GEN-Culture</td>
<td>8</td>
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<td>MBA Program Innovations</td>
<td>GEN-Innovations</td>
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</tr>
<tr>
<td>Other Comments about school/business program - in general</td>
<td>GEN-Other</td>
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<td><strong>FTMBA Program's approach to experiential field-based learning (APP)</strong></td>
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<td></td>
</tr>
<tr>
<td>Types of Experiential Field-based learning projects</td>
<td>APP-Project Types</td>
<td>26</td>
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<tr>
<td>General comments about School's Experiential field-based learning (FBL)</td>
<td>APP-Exp FBL</td>
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<tr>
<td>Experiential Field-based learning projects use of information</td>
<td>APP-Info Use</td>
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<td>Design and structure of experiential field-based learning pedagogy in the</td>
<td>APP-Curriculum</td>
<td>87</td>
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<td>Exp. Field-based learning project deliverables</td>
<td>APP-Deliverables</td>
<td>19</td>
</tr>
<tr>
<td>Exp. Field-based learning project evaluation</td>
<td>APP-Evaluation</td>
<td>21</td>
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<tr>
<td>Exp. FBL Projects - Not in FTMBA program</td>
<td>APP-Not FTMBA</td>
<td>11</td>
</tr>
<tr>
<td><strong>Business Librarians role in this type of experiential pedagogy (BUSLIB)</strong></td>
<td></td>
<td></td>
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<tr>
<td>What business librarians do with FBL project pedagogy</td>
<td>BUSLIB-Role</td>
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<tr>
<td>MBAs and information use</td>
<td>BUSLIB-MBAs</td>
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<tr>
<td>Resource &amp; capacity issues and challenges of business librarians (time, #</td>
<td>BUSLIB-Resource</td>
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<tr>
<td>of staff, project scope, etc.) in this role of supporting this pedagogy</td>
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<tr>
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<td>BUSLIB-Resource</td>
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</tr>
<tr>
<td>etc.) in this role of supporting this pedagogy</td>
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</tr>
<tr>
<td>Differing viewpoints on the roles of business librarians in this pedagogy.</td>
<td>BUSLIB-Differing</td>
<td>24</td>
</tr>
<tr>
<td>Changes in Business librarians roles in supporting this pedagogy in the</td>
<td>BUSLIB-Change</td>
<td>18</td>
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<tr>
<td>past 5 years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for business librarians with this pedagogy</td>
<td>BUSLIB-Opportunities</td>
<td>16</td>
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<tr>
<td><strong>Learning support and guidance to this type of experiential pedagogy other</strong></td>
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<td></td>
</tr>
<tr>
<td>than business librarian role(ROLES)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What faculty do with this type of pedagogy</td>
<td>ROLES-Faculty</td>
<td>24</td>
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<tr>
<td>General overview comments about the various support roles in place to</td>
<td>ROLES-General</td>
<td>43</td>
</tr>
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<td>support this pedagogy</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>What MBA students do to support this type of pedagogy</td>
<td>ROLES-Students</td>
<td>22</td>
</tr>
<tr>
<td>What Career Services professionals do with this type of pedagogy</td>
<td>ROLES-Career</td>
<td>29</td>
</tr>
<tr>
<td>What Alumni and Alumni Relations Departments do with this type of pedagogy</td>
<td>ROLES-Alumni</td>
<td>7</td>
</tr>
<tr>
<td>What IT professionals do to support this type of pedagogy</td>
<td>ROLES-IT</td>
<td>10</td>
</tr>
<tr>
<td>What project sponsor organizations do with this type of pedagogy</td>
<td>ROLES-Sponsor</td>
<td>27</td>
</tr>
<tr>
<td>What other roles do with this type of pedagogy</td>
<td>ROLES-Other</td>
<td>45</td>
</tr>
<tr>
<td>Academic Faculty vs. business professionals as lead project advisors - differing perspectives</td>
<td>ROLES-Faculty/Professionals</td>
<td>15</td>
</tr>
</tbody>
</table>

| Resources and capacity issues connected with this type of experiential pedagogy (RES) | RES-Faculty | 20 |
| Resource & capacity issues and challenges of faculty (time, # of staff, project scope, etc.) in this role | RES-General Comments | 23 |
| General overview, comments about the various resources used to support this pedagogy | RES-General Comments | 23 |
| Resource & capacity issues and challenges of non-faculty and non-librarians (time, # of staff, project scope, etc.) in this role | RES-Other | 11 |

| Organization of this learning and model(s) of Delivery (ORG) | ORG-History | 22 |
| Exp. Field-based Learning - Institutional history | ORG-Structure | 43 |
| Exp. Field-based Learning - current organizational infrastructure | ORG-Leadership | 18 |
| Exp. Field-based Learning - Leadership and reporting structure | ORG-Siloes | 5 |
| Comments about organizational siloes and various areas not communicating with each other | ORG-Bonds | 4 |
| Comments about organizational bonds and ways that various areas are communicating well with each other | ORG-Change | 25 |
| Organization of Exp. Field-based Learning - Change in past 5 years | ORG-Challenges | 31 |
| Challenges faced in the management and delivery of this pedagogy | ORG-Opportunities | 10 |
| Opportunities in general for the use and delivery of this pedagogy | |

| Outcomes of this pedagogy on students and graduates (OUT) | OUT-General | 50 |
| Exp. Field-based learning outcomes - in general | OUT-Info Use | 22 |
| Exp. Field-based learning outcomes - Informational aspects | | |
Appendix E: Business librarian online survey results

Survey Questions 1 and 2 – Business Librarian Organizational Reporting and Funding Structure at the Top 20 MBA Programs*

<table>
<thead>
<tr>
<th>Rank</th>
<th>School</th>
<th>Reporting to and funded entirely by the business school</th>
<th>Located in the business school but reporting to and funded by the central library administration</th>
<th>Located within the main library and reporting to and funded by the main library</th>
<th>Other Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Harvard University, Boston, MA</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#1</td>
<td>Stanford University, Stanford, CA</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#1</td>
<td>University of Pennsylvania (Wharton), Philadelphia, PA</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td>University of Chicago (Booth), Chicago, IL</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>Massachusetts Institute of Technology (Sloan), Cambridge, MA</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#6</td>
<td>Northwestern University (Kellogg), Evanston, IL</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#7</td>
<td>University of California—Berkeley (Haas), Berkeley, CA</td>
<td>x</td>
<td>Funded by the Business School and reporting to central library administration.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#8</td>
<td>Columbia University, New York, NY</td>
<td>x</td>
<td>Located outside the central library and funded by business and another professional school, report to central library and both schools.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#10</td>
<td>New York University (Stern), New York, NY</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#11</td>
<td>University of Michigan—Ann Arbor (Ross), Ann Arbor, MI</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#11</td>
<td>University of Virginia (Darden), Charlottesville, VA</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#13</td>
<td>Yale University, New Haven, CT</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#14</td>
<td>Duke University (Fuqua), Durham, NC</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#15</td>
<td>University of Texas—Austin (McCombs), Austin, TX</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#16</td>
<td>University of California—Los Angeles (Anderson), Los Angeles, CA</td>
<td>x</td>
<td>Located in the business school and report to central library. Funded by business school and central library.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#17</td>
<td>Cornell University (Johnson), Ithaca, NY</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#18</td>
<td>Carnegie Mellon University (Tepper), Pittsburgh, PA</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#19</td>
<td>University of North Carolina—Chapel Hill (Kenan-Flagler), Chapel Hill, NC</td>
<td>x</td>
<td>Report business school, funded by private trust.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#20</td>
<td>Emory University (Goizueta), Atlanta, GA</td>
<td>x</td>
<td>Located within the main library and reporting to the central library administration and business school Dean, but funded by the business school.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For the responses represented in Question 1, for the one institution that didn't respond to this survey, the answers to this question were determined in one of the business librarian case interviews and from their website.
Survey Question 3 - Does your library have a formal role in the support of experiential field-based learning curriculum at your school?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21%</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>79%</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>

Survey Question 4 - If you said yes, which of the following pertain to your role? (Check all that apply.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A librarian is a member of the field-based project course teaching team.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>A librarian guest teaches one or more sessions in the field-based project course.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>A librarian participates in designing field-based project curriculum.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>A librarian is a member of a curriculum planning committee for field-based projects.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other, please describe:</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>This formal role with this type of instruction is included in librarian job descriptions.</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>100%</td>
</tr>
</tbody>
</table>

Additional Comments

The Librarians support the information needs of the student teams. In addition, we participate in curriculum discussions about the program at our school.

Each field study team meets with a librarian for project-specific instruction. This leads to ongoing follow-up with many teams throughout the field study period.

Librarians are formally embedded into each project team and provide research support to the team to successfully complete their project.
Survey Question 5 - How does the library work with your school’s experiential field-based learning projects? (Check all that apply.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>On demand reference librarian help, as provided to any other library customer.</td>
<td>89%</td>
<td>17</td>
</tr>
<tr>
<td>Creates generic web guides with lists of recommended secondary sources (e.g. company and industry sources), not tailored to specific projects.</td>
<td>47%</td>
<td>9</td>
</tr>
<tr>
<td>Creates separate web guides with lists of recommended secondary sources targeted to the needs of each team project.</td>
<td>47%</td>
<td>9</td>
</tr>
<tr>
<td>Provides optional workshops on research as part of experiential field-based learning projects support.</td>
<td>32%</td>
<td>6</td>
</tr>
<tr>
<td>Provides required formal instruction on research as part of experiential field-based learning projects support.</td>
<td>26%</td>
<td>5</td>
</tr>
<tr>
<td>Each project team has a designated librarian to provide guidance on locating and gathering information.</td>
<td>32%</td>
<td>6</td>
</tr>
<tr>
<td>Librarians participate in judging project presentations.</td>
<td>11%</td>
<td>2</td>
</tr>
<tr>
<td>Other ways librarians at your school are working with these projects? Please describe in the space provided:</td>
<td>42%</td>
<td>8</td>
</tr>
</tbody>
</table>

Q5- Additional Comment - Other ways librarians at your school are working with these projects?

Librarians are invited to attend project presentations as observers.

We do not

We create a Word document that provides resources based on specific projects and that document gets posted to Canvas.

Each project team has a designated librarian who meets with the team in a one-shot session tailored to that team's project. Though the team is encouraged to work with that librarian in the future, the team is not required to do so.

Create videos on recommended resources

Librarians curate and deliver weekly news updates based on field locations; participate in the field experience (in the role of program managers); develop material to help students learn more about the social and business culture of the regions where they will be traveling; create country specific postcards with resource recommendations and QR codes that link to the related online product.

Provide background "fact packs" to student engagement programs to accelerate their efforts.

Direct outreach to staff and faculty involved with projects to raise awareness of the availability of assistance from the library with specific projects.

Survey Question 6 - During field-based projects when do most teams come to get assistance from librarians? [Select only one response.]

<table>
<thead>
<tr>
<th>When do most teams come to get assistance from librarians?</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of the project</td>
<td>11%</td>
<td>2</td>
</tr>
<tr>
<td>Middle of the project</td>
<td>11%</td>
<td>2</td>
</tr>
<tr>
<td>Towards the end of the project</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Repeatedly throughout the length of the project</td>
<td>31%</td>
<td>6</td>
</tr>
<tr>
<td>There is no standard pattern on when they come for assistance.</td>
<td>42%</td>
<td>8</td>
</tr>
<tr>
<td>They don’t come for assistance.</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>
Survey Question 7 - When the librarian supports a team working on a field project, who is he or she typically working with?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually one team member who is the designated research lead for the team.</td>
<td>16%</td>
<td>3</td>
</tr>
<tr>
<td>Usually the whole team.</td>
<td>21%</td>
<td>4</td>
</tr>
<tr>
<td>Usually different members of the team individually.</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>No standard way in terms of who in the teams interacts with the library in getting support.</td>
<td>53%</td>
<td>10</td>
</tr>
<tr>
<td>They don't request assistance from librarians.</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>

Survey Question 8 - Do you ever meet with the whole project team to provide information gathering guidance?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>Rarely</td>
<td>11%</td>
<td>2</td>
</tr>
<tr>
<td>Sometimes</td>
<td>42%</td>
<td>8</td>
</tr>
<tr>
<td>Often</td>
<td>37%</td>
<td>7</td>
</tr>
<tr>
<td>Always</td>
<td>5%</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>

Survey Question 9 - Is providing support and guidance for experiential field-based learning projects included as part of the formal performance reviews of librarians?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21%</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>79%</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>

Survey Question 10 - In the past five years have your job responsibilities changed to accommodate support for experiential learning projects?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, Please describe these changes:</td>
<td>16%</td>
<td>3</td>
</tr>
<tr>
<td>No</td>
<td>84%</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>

If Yes, Please describe these changes:

- Yes, we have to juggle schedules and workloads in order to successfully deliver the weekly newsletters which begin about 8-10 weeks pre-trip. We've also started providing more research drop-in sessions specific for these student teams.
- We work more closely with our student project teams and have a routine process in place, including KM support.
- We have expanded the number of people to support experiential learning projects at our library - driven in part by an increase in the number of teams we need to support.
Survey Question 11 - Are there positions other than business librarians that directly work with field-based projects in the MBA program to support information gathering and analysis?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31%</td>
<td>6</td>
</tr>
<tr>
<td>No</td>
<td>53%</td>
<td>10</td>
</tr>
<tr>
<td>Not sure</td>
<td>16%</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>19</td>
</tr>
</tbody>
</table>

Survey Question 12 - If you said yes, approximately how many people are in these different roles?

<table>
<thead>
<tr>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>Three</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

We have several different programs. Generally one person per program. There is generally a small budget for data acquisition and this is what these people assist with since the library does not have a budget to purchase data for these projects.

Survey Question 13 - If you said yes, what are the job titles of these roles?

<table>
<thead>
<tr>
<th>Job Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>science librarians</td>
</tr>
<tr>
<td>social science librarians, science librarians, engineering librarians</td>
</tr>
<tr>
<td>Forestry and Environmental Studies Librarian, Government Information Librarian, Engineering Librarian</td>
</tr>
<tr>
<td>Director of Startup Consulting program</td>
</tr>
<tr>
<td>Associate Director</td>
</tr>
<tr>
<td>Information Assistants</td>
</tr>
</tbody>
</table>
**Survey Question 14 - When you are working with students on field-based projects how often do you help them with these information functions?**

<table>
<thead>
<tr>
<th>Function</th>
<th>Don’t know</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>Total Responses</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking a problem apart - Ability to break apart a problem effectively to identify the questions that will need to be answered and where sources to answer those questions might be.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>2</td>
<td>18</td>
<td>4.39</td>
</tr>
<tr>
<td>Confronting information gaps – Approach what can’t be found constructively in terms of possible alternative ways to answer the question.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>4</td>
<td>18</td>
<td>5.06</td>
</tr>
<tr>
<td>Contextual Intelligence – Ability to identify facts connected with the past and/or present situation.</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Creative Intelligence – Use information gathered to consider or predict “what could be.”</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>4</td>
<td>0</td>
<td>18</td>
<td>3.72</td>
</tr>
<tr>
<td>Problem Finding – Use information gathered to explore potential risks.</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>18</td>
<td>3.56</td>
</tr>
<tr>
<td>Integrative Thinking – Consider multiple options from diverse sources and effectively synthesize information.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>18</td>
<td>4.39</td>
</tr>
<tr>
<td>Time management and resource allocation – Implement an effective plan for doing and delivering the work.</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>18</td>
<td>3.33</td>
</tr>
<tr>
<td>Balanced use of types of evidence - Effectively balance the use of primary vs. secondary information sources.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>18</td>
<td>3.72</td>
</tr>
<tr>
<td>Credibility - Assess factors regarding the creators of information to determine its credibility.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>4</td>
<td>18</td>
<td>4.94</td>
</tr>
<tr>
<td>Evidential Responsibility – Document referenced sources and present information that clearly communicates and demonstrates authority and credentials concerning a point of view.</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>18</td>
<td>4.5</td>
</tr>
<tr>
<td>Copyright - Appreciate issues around copyright and fair use in the proper use of information.</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>18</td>
<td>4.39</td>
</tr>
</tbody>
</table>
Survey Question 15 - Please indicate who assists the MBA students in the following information related functions when they are working on experiential field-based learning projects.

<table>
<thead>
<tr>
<th>Question</th>
<th>Librarians</th>
<th>Faculty member advising project</th>
<th>People at the project's company or sponsor organization</th>
<th>Student project team members</th>
<th>Other support roles</th>
<th>Not supported</th>
<th>Don't know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking a problem apart - Ability to break apart a problem effectively to...</td>
<td>78%</td>
<td>14</td>
<td>78%</td>
<td>14</td>
<td>33%</td>
<td>6</td>
<td>11%</td>
<td>2</td>
</tr>
<tr>
<td>Confronting information gaps - Approach what can't be found constructively...</td>
<td>89%</td>
<td>16</td>
<td>61%</td>
<td>11</td>
<td>17%</td>
<td>3</td>
<td>50%</td>
<td>9</td>
</tr>
<tr>
<td>Contextual Intelligence - Identify facts connected with the past and/or pre...</td>
<td>67%</td>
<td>12</td>
<td>61%</td>
<td>11</td>
<td>33%</td>
<td>6</td>
<td>61%</td>
<td>11%</td>
</tr>
<tr>
<td>Creative Intelligence - Use information gathered to consider or predict ...</td>
<td>61%</td>
<td>11</td>
<td>61%</td>
<td>11</td>
<td>33%</td>
<td>6</td>
<td>50%</td>
<td>9</td>
</tr>
<tr>
<td>Problem Finding - Use information gathered to explore potential risks.</td>
<td>44%</td>
<td>8</td>
<td>67%</td>
<td>12</td>
<td>44%</td>
<td>8</td>
<td>67%</td>
<td>12%</td>
</tr>
<tr>
<td>Integrative Thinking - Consider multiple options from diverse sources and e...</td>
<td>61%</td>
<td>11</td>
<td>56%</td>
<td>10</td>
<td>33%</td>
<td>6</td>
<td>56%</td>
<td>10%</td>
</tr>
<tr>
<td>Time management and resource allocation - Implement an effective plan for d...</td>
<td>22%</td>
<td>4</td>
<td>61%</td>
<td>11</td>
<td>17%</td>
<td>3</td>
<td>50%</td>
<td>9</td>
</tr>
<tr>
<td>Balanced use of types of evidence - Effectively balance the use of primary...</td>
<td>61%</td>
<td>11</td>
<td>61%</td>
<td>11</td>
<td>11%</td>
<td>2</td>
<td>44%</td>
<td>8</td>
</tr>
<tr>
<td>Credibility - Assess factors regarding the creators of information to deter...</td>
<td>89%</td>
<td>16</td>
<td>50%</td>
<td>9</td>
<td>0%</td>
<td>0</td>
<td>33%</td>
<td>6</td>
</tr>
<tr>
<td>Evidential Responsibility - Document referenced sources and present informa...</td>
<td>78%</td>
<td>14</td>
<td>28%</td>
<td>5</td>
<td>0%</td>
<td>0</td>
<td>33%</td>
<td>6</td>
</tr>
<tr>
<td>Copyright - Appreciate issues around copyright and fair use in the proper u...</td>
<td>94%</td>
<td>17</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>28%</td>
<td>5</td>
</tr>
</tbody>
</table>
Survey Question 16 - Is there any additional information you would like to add about experiential field-based learning projects and the role of business librarians at your school?

<table>
<thead>
<tr>
<th>Had to answer &quot;don't know&quot; to all &quot;who assists&quot; questions. The students come to the libraries for help when they need it, but beyond that we are not involved in the program enough to know how every student gets assistance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the solo business librarian I worked closely with the MBA+ program and Texas Venture Labs programs. The position has always supported these programs. It is not included separately in the evaluation but I do mention work I do for them in the narrative.</td>
</tr>
<tr>
<td>it is extremely interesting; it is one of our biggest success stories enabling us to partner and collaborate with faculty and students; it has contributed to librarians being seen as part of the student teams and their community; it has greatly increased our visibility and value</td>
</tr>
<tr>
<td>This is a core role for us. Expectations placed on the librarians by the programs we support can be difficult to meet due to timing of expected consultations. Some programs also have difficulty placing the required library consultation at the best time for the team. Rather than have timing that maximizes the team's needs, the consultation is scheduled during the best time for the program. Even if that might mean the night before a major exam. This relationship, across multiple programs, is a work in progress and ever-improving.</td>
</tr>
<tr>
<td>No formal process. Students contact members of the reference team, or our head of reference through email. In response, the staff responds. Head of reference makes videos of recommended resources. We do not do anything as involved as itemized here</td>
</tr>
<tr>
<td>I don't really see how most of the categories above relate to a librarian's usual role - also it's unclear what defines an &quot;experiential field-based learning project&quot;. I talk to various classes that are working on real-world projects - startups, consulting, etc. - are they all &quot;experiential field-based&quot;? So my answers to these questions are relatively uncertain.</td>
</tr>
</tbody>
</table>
Appendix F: LEPE conferences

In three (MBA2, MBA5, MBA6) of the five case study interviews with professors discussing the history of FBL in their programs, a group called Leaders of Experiential Project-Based Education (LEPE) was mentioned as a body that meets every year to discuss trends in this form of pedagogy in MBA programs. When the Tuck School of Business at Dartmouth University hosted this conference in 2014, they described it as providing “an opportunity for project-based learning leaders from top-tier MBA programs to gather and collaborate. In addition to both benchmarking and sharing of programmatic design and execution, this year's LEPE conference will provide opportunities to hear from subject matter experts on how adults learn, how team dynamics affect performance, and other training to help us better design our courses, manage our project teams, and take experiential learning to a new level” (Tuck School of Business, 2014).

In the process of doing research for this dissertation, two other organizations focused on professional development and training for this type of learning were identified. One was the World Institute for Action Learning (WIAL) which focuses on training programs at companies not MBA curriculum. The other organization that does have a business school focus was the Experiential Learning Association meeting at the annual Eastern Academy of Management conference but their programming on experiential learning is not focused exclusively on MBA programs.

LEPE appears to be the only group focused exclusively on the leadership support for this type of learning at the top U.S. MBA programs and thus relevant to the focus of this dissertation’s research. LEPE has existed since 2009. Table F.1 lists the schools that have hosted the conference each year.
**Table F.1**

*Schools that have hosted LEPE Conferences*

<table>
<thead>
<tr>
<th>Year of Conference</th>
<th>School Host</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>UCLA Anderson School of Management</td>
</tr>
<tr>
<td>2010</td>
<td>Harvard Business School</td>
</tr>
<tr>
<td>2011</td>
<td>UNC Kenan-Flagler Business School</td>
</tr>
<tr>
<td>2012</td>
<td>University of Washington Foster School of Management</td>
</tr>
<tr>
<td>2013</td>
<td>Ohio State University Fisher College of Business</td>
</tr>
<tr>
<td>2014</td>
<td>Dartmouth University Tuck School of Business</td>
</tr>
<tr>
<td>2015</td>
<td>University of Michigan Ross School of Business</td>
</tr>
<tr>
<td>2016</td>
<td>UCLA Anderson School of Management</td>
</tr>
</tbody>
</table>

In 2014 the attendees at the conference were from the following schools: Chicago Booth; Boston University School of Management; Fisher College of Business; The Ohio State University; Haas School of Business, University of California Berkeley, Harvard Business School, Kelley School of Business Indiana University, Kellogg School of Management Northwestern University, MIT Sloan School of Management, NYU Stern School of Business, Ross School of Business Michigan University, Stanford Graduate School of Business, The Wharton School of the University of Pennsylvania, Tuck School of Business at Dartmouth, UCLA Anderson School of Management, UNC Kenan-Flagler Business School, University of Connecticut School of Business, USC Marshall School of Business (Tuck School of Business, 2014b). This was the latest date a complete list of attendees could be found on the web. Based on this list and other reviews of LEPE programs found on the internet it appears that four of the six MBA programs covered as case studies in this dissertation’s research have been regular attendees at this conference.

In a conversation with one of the faculty member respondents who had attended LEPE (MBA5 Professor, 8/8/16 personal communication) he shared that his impression was that it was
a conference primarily for administrators of FBL programs not faculty involved in this curriculum, to share best practices in an informal setting. One of the other professors interviewed also shared this view. "I’ve gone [to LEPE] one year...and most of the people there are not faculty, most schools don’t have faculty involved in this. They have administrators. So it’s mostly administrators" (MBA2 Professor). In reviewing the history of these programs with the interviewees, a development of note was that beyond typical academic conferences that business school faculty attend such as the Institute for Operations Research and the Management Sciences (INFORMS) and the Academy of Management, this separate organization was unique in serving as a forum specifically for the administrators and as faculty of these FBL project courses.
Appendix G: Social Network Analysis

Table G.1

**Types and Number of Roles mentioned in Interviews at each School**

*Types of Role=* Administrators, Faculty, Team Advisors, Sponsors, Career, Business Librarians, Students, Alumni

*Level of Formality* (1=required; 2=discretionary; 3=rarely used; A=Program Advocate not working with student teams)

<table>
<thead>
<tr>
<th>Type of Role</th>
<th>Role Description</th>
<th>School</th>
<th>Level of Formality</th>
<th>Number of Roles at each school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>Director of Strategic Curricular Networks - to identify contacts for the school for things like clients for FBL elective classes</td>
<td>MBA1</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>Business Librarian</td>
<td>Business Librarians</td>
<td>MBA1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>Career Services Professional - Career Advisor and Outreach</td>
<td>MBA1</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Course Professor - responsible for project grading</td>
<td>MBA1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td>Director of [FBL course name]</td>
<td>MBA2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Business Librarian</td>
<td>Business Librarians (each team assigned one)</td>
<td>MBA2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>Career Services Professional - Career Advisor and Outreach</td>
<td>MBA2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Faculty Lead for the FBL Course - Teaches and designs curriculum</td>
<td>MBA2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Adjunct professor advising on interview design</td>
<td>MBA2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Marketing Professor advising on marketing issues</td>
<td>MBA2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>MBA's former statistics professor</td>
<td>MBA2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Survey Design Expert</td>
<td>MBA2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Alumni</td>
<td>Alumni Development Office</td>
<td>MBA3</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>Business Librarian</td>
<td>Business Librarians (often each team assigned one)</td>
<td>MBA3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>Career Services Professional - Career Advisor and Outreach</td>
<td>MBA3</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Associate Dean for FBL related Initiatives - teach and design curriculum</td>
<td>MBA3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>MBA's former statistics professor</td>
<td>MBA3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Discipline Faculty and Alumni</td>
<td>MBA3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td>Director of FBL program</td>
<td>MBA3</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Alumni</td>
<td>Alumni Mentors</td>
<td>MBA3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Business Librarian</td>
<td>Business Library Coordinator with FBL course</td>
<td>MBA4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Business Librarian</td>
<td>Business Librarians (each team assigned one)</td>
<td>MBA4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Career</td>
<td>Career Services Professional - Career Advisor and Outreach</td>
<td>MBA4</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Faculty lead and faculty advisors (1 per team) - responsible for grading</td>
<td>MBA4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Presenters at noontime workshops - Different tools and methods appropriate to different project i.e. interviewing, conjoint analysis, etc.</td>
<td>MBA4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Communications Faculty member - advising teams on writing and presenting</td>
<td>MBA4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Team Effectiveness Advisor</td>
<td>MBA4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td>[FBL course name] Office Managing Director</td>
<td>MBA5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td>Chief Learning Officer</td>
<td>MBA5</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td>Faculty Director of Action-based Learning (Across all business school programs not just MBA)</td>
<td>MBA5</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Business Librarian</td>
<td>Librarians also called &quot;Secondary Research Consultants&quot; (Each team assigned one)</td>
<td>MBA5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>Description</td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>2 full-time faculty advisors for each team project - one &quot;non-travelling&quot; and other &quot;travelling&quot; as liaison to organization sponsoring the project. Both do grading.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>2nd year MBA student peer advisor for each team (these individuals have to participate in a coaching course). Referred in one of the interviews as &quot;MBA Two Coach&quot;</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Communications Consultants</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>One faculty member who is a research resource to students for construction and interview protocols.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Advisors</td>
<td>Primary Research Coach</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrators</td>
<td>FBL Course Administrator</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alumni</td>
<td>Alumni Development Office</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Librarian</td>
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MBA6 7
## Table G.2

**Levels of Formality and Engagement with FBL of Roles Mentioned in Interviews at Each School**

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Table G.3

**Number of Types of Roles Mentioned in Interviews at Each School**

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