MBA Student Expectations: MBA Online and MBA Classroom
Student Expectations for Leadership Skills Development in an MBA Program

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MBA Student Expectations: MBA Online and MBA Classroom Student Expectations for Leadership Skills Development in an MBA Program

Abstract
Business schools are facing an increasingly challenging landscape because of growing institutional competition, resource limitations, and disruption created by online programs. The growth of online enrollments has impacted graduate business programs, which have the highest percentage of total graduate degrees conferred nationally. Research studies indicate students and employers have expectations for an MBA program to develop students’ leadership skills. However, little research has been conducted to study student expectations for leadership skills development in online MBA programs. This quantitative research study surveyed 149 MBA students enrolled in an upstate New York public university to examine the expectations of MBA online students and MBA classroom students for developing leadership skills in an MBA program using a leadership competency framework. The results of an independent samples t test found no significant difference (p > .05) in expectations between online and classroom MBA students for the four leadership competency areas of behavior, knowledge, skills, and workstyles. Recommendations for graduate program decision makers include developing an expectation framework for leadership skills development to accommodate the diverse levels of experience students bring to MBA programs. Integrating hybrid experiences and classroom course techniques used for interpersonal skills development, such as coaching, into online courses is also recommended to meet student and stakeholder expectations for leadership skills development in MBA programs.

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MBA Student Expectations: MBA Online and MBA Classroom Student Expectations for Leadership Skills Development in an MBA Program

By

Irene Galgan Scruton

Submitted in partial fulfillment of the requirements for the degree Ed.D. in Executive Leadership

Supervised by

Dr. Kim VanDerLinden

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St. John Fisher College

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Dedication

I dedicate this dissertation to my parents, Henry and Jane Galgan, who persevered through horrific circumstances of World War II in Poland, Germany, and Siberia to come to the United States, where they filled our family life with love, faith, and hope. They instilled in me the belief that you can achieve anything with the support of your family, hard work, a positive attitude, and education, and I am forever indebted to them. To my son, Brian, and “daughter,” Lindsie, you are both an inspiration. Thank you for each and every “you can do it” that you lovingly shared and for the ultimate gift of a grandson, Colin, just in time for “babcia’s” dissertation defense. To my companions, Kent and Bella, I am grateful for your faithfulness and patience through this doctoral journey.

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On the front line of this entire journey, I was blessed with two angels, Melissa Arduini and Darlene Tynan. I am forever grateful for your unwavering support, laughter, kindness, and buckets of encouragement. Thank you, Nancy and Don Blair, for your steadfast friendship and scholarly knowledge. You saved many a day in this process. To my Barbara “angels,” my awesome sister, Barbara Dickson, and friends, Barb Stratton, Barb Stone, and Barb Krauza, thank you for your encouraging “check ins,” friendship, and loyal support of this adventure. Thank you to my Pisces friend, Michelle Keib, for your confidence that I would prevail, and to the Ridall family for your generous friendship and offers of “time.” I am also grateful to the friends and colleagues who, on any given day, shared a word of positive encouragement along the way.

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Biographical Sketch

Irene Galgan Scruton is Assistant Dean and Director of MBA Programs at the State University of New York (SUNY) at Oswego. She is also an adjunct faculty member in the School of Business, teaching graduate courses online in leadership and social entrepreneurship. Ms. Scruton has led the efforts for innovative MBA programming collaborations with corporations and within SUNY.

Ms. Scruton earned a Master’s degree in Business Administration from Syracuse University and a Bachelor of Science degree in Business Administration from the State University of New York at Buffalo. Ms. Scruton has held executive-level leadership positions in banking, the nonprofit sector, and government for 25 years prior to joining the SUNY Oswego School of Business. She is an engaged community leader, having held leadership positions on boards of directors for regional and state-wide nonprofit organizations. Ms. Scruton was appointed to the Inaugural Board of Directors for the Syracuse Regional Airport Authority from 2011 to 2017 and was chair of the governance committee. She is currently on the board of directors for a publicly traded manufacturer in the cable and satellite industry. Ms. Scruton began the Ed D. program in Executive Leadership at St. John Fisher College in the spring of 2015 and conducted her research under the supervision of Dr. Kim VanDerLinden and committee member Dr. C. Michael Robinson. Her research interests are focused on leadership development in graduate business programs and the social enterprise sector, online learning, and organizational governance. Ms. Scruton received the Ed.D. degree in 2017.
Abstract

Business schools are facing an increasingly challenging landscape because of growing institutional competition, resource limitations, and disruption created by online programs. The growth of online enrollments has impacted graduate business programs, which have the highest percentage of total graduate degrees conferred nationally. Research studies indicate students and employers have expectations for an MBA program to develop students’ leadership skills. However, little research has been conducted to study student expectations for leadership skills development in online MBA programs. This quantitative research study surveyed 149 MBA students enrolled in an upstate New York public university to examine the expectations of MBA online students and MBA classroom students for developing leadership skills in an MBA program using a leadership competency framework. The results of an independent samples $t$ test found no significant difference ($p > .05$) in expectations between online and classroom MBA students for the four leadership competency areas of behavior, knowledge, skills, and workstyles. Recommendations for graduate program decision makers include developing an expectation framework for leadership skills development to accommodate the diverse levels of experience students bring to MBA programs. Integrating hybrid experiences and classroom course techniques used for interpersonal skills development, such as coaching, into online courses is also recommended to meet student and stakeholder expectations for leadership skills development in MBA programs.
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Chapter 1: Introduction

The annual growth of online education course enrollments in higher education for the last 10 years (since 2007) has created both opportunities and challenges for higher education leadership, faculty, and students. Online education, originally described as a disrupter to higher education (Christensen & Eying, 2011), is now a strategic component of academic offerings in higher education.

In 2014, at public and private institutions, 2.8 million students, or 14% of the total, took coursework exclusively online. At the graduate level, one in four students was enrolled in an online course (Allen, Seaman, Poulin, & Straut, 2016). The National Student Clearinghouse Research Center (NSCRC, 2015) reported that 25% of all graduate degrees conferred in 2014 were in business management disciplines, which include the Master of Business Administration (MBA) degree. Enrollments in online MBA programs in the United States experienced a 9% increase between 2011 and 2014 (National Center for Education Statistics [NCES], 2014).

Students enrolling in MBA programs have an expectation that the degree will support the development of leadership skills (Rubin & Dierdorff, 2011). According to a national survey of prospective MBA students conducted by the Graduate Management Admissions Council (GMAC, 2016a), students expected the MBA degree would lead to careers with responsibilities that allow for making an impact, making a difference, and solving world problems. Student expectations for leadership development in MBA programs align with employer expectations who view MBA programs as producers of the
next generation of leaders (Benjamin & O’Reilly, 2011; Bruce, 2010; Gupta & Smith, 2007; Rubin & Dierdorff, 2013). The results of an international corporate recruiter survey found that the number one reason companies planned to hire MBA graduates in 2016 was to build the leadership pipeline in their organizations (GMAC, 2016c).

In concert with student and employer expectations for developing leadership skills in MBA programs is the recruitment messaging of graduate business schools. Starkey and Tempest (2008) found that leadership development is often communicated as an outcome a student can expect from enrolling in an MBA program. In an editorial essay directed to business school leaders and employers regarding expectations for leadership development in schools of business, Morrison (2003) concisely framed the issue with the statement that “leadership is our business” (p. 4).

Scholars have attempted to categorize leadership skills into frameworks or competency areas to identify the knowledge, skills, abilities, and attitudes that, if acquired or developed, enable individuals to be effective leaders (Kalargyrou, Pescosolido, & Kalargiros, 2012; Mayo, Kakarika, Pastor, & Brutus, 2012; Mumford, Campion, & Morgeson, 2007; Teijeiro, Rungo, & Freire, 2013). In the context of graduate business programs, Dierdorff and Rubin (2006) and Dierdorff, Rubin, and Morgeson (2009) conducted empirical analyses of competencies using data from the U.S. Department of Labor Occupational Information Network (O*NET). Dierdorff and Rubin’s (2006) comprehensive study identified 18 skills required for managerial roles derived from employer responses to questionnaires related to the O*NET database. The researchers categorized the 18 skills into four competency areas labeled: behavior, knowledge, skills, and workstyle (Dierdorff & Rubin, 2006; Dierdorff et al., 2009).
The results of a national survey conducted by GMAC (2016a) indicated prospective MBA students expressed expectations for leadership skills development in an MBA program. The GMAC report (2016a) also listed MBA program expectations by MBA program type, which revealed there may be differences in expectations between classroom-based students and students in professional MBA programs that include the online MBA degree programs. Appleton-Knapp and Krentler’s (2006) research claimed that student expectations for online education were an undervalued component for decision making in higher education. The literature review reveals little to no scholarly research of online MBA student expectations for leadership skills development in MBA programs, thus creating the need for this research study.

**Problem Statement**

Higher education is operating in a complex economic environment of reduced funding and increased competition as it delivers academic programming to an evolving, consumer-oriented student. State support for higher education decreased by 7.6% in 2012 (Center on Budget Policies and Priorities, 2015). Total enrollments in higher education decreased by 1.4% between 2012 and 2013 (NCES, 2014). The budget constraints of higher education are further pressured by *cost disease*, a termed coined by Bowen (2013) to describe the systematic growth of faculty payroll costs and institutional expenses. Administrators in higher education originally looked to growth in online enrollments as a method to reduce cost-per-student expenses (Guri-Rosenblit, 2006). However, research data does not support the premise of reduced costs and specifically cites the high delivery costs of online programs (Kilburn, Kilburn, & Cates, 2014; Neely, 2004; Neely & Tucker, 2010; Rubin, 2013; Smith & Mitry, 2008).
In addition to economic challenges, higher education must cope with escalating competition for students. For-profit institutions, operating primarily online, garnered 13% of total enrollments in 2010 (Smith, 2015). The number of institutions offering online MBA degrees increased from 68 to 104 in the 5 years between 2010 and 2015 (Bal, Anistal, & Anistal, 2014). The Association for Accredited Collegiate Schools of Business (AACSB, 2015) reports there are over 700 MBA programs offered by AACSB accredited institutions. GMAC (2016a) reported that in 2014, 952 public and private institutions offered MBA degrees in multiple formats including full time, part time, year-round, traditional, classroom, online, executive, accelerated, flexible, or blended.

The institutional budget constraints and increased competition for students in higher education converge with the evolving consumer-oriented expectations of students (Granitz & Greene, 2003; Hubbell, 2015; Knoedler, 2015; Mark, 2013; Molesworth, Scullion & Nixon, 2009; Naidoo & Williams, 2015; Rolfe, 2002; Titus, 2008). A student with a consumer mindset views enrollment in a degree program as a consumer purchase and, consequently, has expectations for the delivery of the service to meet their individual needs or provide value for the price paid (Mark, 2013; Oliver, 1980). The increased use of third-party program endorsements, national rankings, faculty rating websites, course satisfaction guarantees, and demands for financial returns on tuition investment are evidence of a student consumer mentality similar to what may be experienced with the purchase of a retail product (Granitz & Greene, 2003; Hossain, 2009; Hubbell, 2015; Mark, 2013).

Also fueling the consumer orientation of students for higher education, particularly for an online education, are advancements to technology. Cost-effective
broadband networks, improved learning management systems (LMS), and the proliferation of mobile devices are transforming student expectations for course design and access (Arbaugh, 2013; Knoedler, 2015). A Pew Research Center (2016) study reported that in 2015, 30% of smartphone users accessed educational content on their cell phones, creating challenges for instructional course designers.

For higher education and schools of business to successfully maneuver the landscape of constrained institutional budgets and increased competition for online programs, it is essential for higher education to understand and meet the expectations of the consumer-oriented student. Armed with a more in-depth understanding of student expectations for online programs, institutions will be better equipped to make decisions regarding the best use of organizational resources to meet the student expectations, specifically for MBA online programs (Bowen, 2013; Christensen & Eyring, 2011; Cinar & Torenli, 2010; Mark, 2013).

GMAC’s (2016a, 2016b) national surveys of students and alumni identified leadership skills development as a student expectation for an MBA program. However, the preponderance of research literature is focused on student expectations for faculty, academic performance, and support services primarily in classroom settings. Research studies link understanding and meeting student expectations for online learning to positive effects on student enrollments (Heyman, 2015; Kilburn et al., 2014; Longden, 2006), academic performance (Holzweiss, Joyner, Fuller, Henderson, & Young, 2014; Lint, 2013), student satisfaction (Arbaugh, 2000; Endres, Chowdhury, Frye, & Hurtubis, 2009), and long-term organizational sustainability (Mark, 2013; Taylor, 2006).
The research studies for online programs are focused primarily on the expectations for the technical aspects of course instruction in the online format. Research studies discuss student expectations for faculty course communication and presence (Arbaugh & Hwang, 2006), course design (Arbaugh, 2005), group work (Palloff & Pratt, 2003), technology use (Bailie, 2014; Davis, 2011), quality (Rapert, Smith, Velliquette, & Garretson, 2004), and faculty engagement (Roe, Toma, & RamMohan, 2015; Tanner, Noser, & Totaro, 2009). Research studies also discuss the demographics of graduate students enrolling in online MBA programs as more likely to be working professionals concerned with enhancing their career options (Cao & Sakchutchawan, 2011) and with the flexibility and convenience that an online education provides (Bocchi, Eastman, & Swift, 2004; Cao & Sakchutchawan, 2011; Cinar & Torenli, 2010).

Despite an assertion by Herrington (2010) that an MBA degree is a must have degree for individuals aspiring to leadership positions and a report from GMAC (2016a) that indicates MBA students have expectations for leadership outcomes, there is little or no research literature in terms of studying MBA students’ expectations for leadership skills development in online MBA programs. The research studies for leadership development in MBA programs are predominantly grounded in classroom-based environments (Jenkins, 2016; Redpath, 2012). Nirenberg’s (2003) recommendations for leadership development in MBA programs proposed models with classroom instructional design methods. The extensive focus in the research literature on leadership development in MBA programs conducted in classroom environments provides for a very limited understanding of online MBA student expectations.
Therefore, as higher education faces increased competition for MBA students in a financially challenged environment, this study will contribute to a better understanding of the MBA students’ expectations for leadership development in MBA programs, particularly online programs. This research will be able to provide support for decisions in schools of business that impact faculty and course-design resources for online programs.

**Theoretical Rationale**

Support for understanding student expectations for online learning can be found within the theoretical framework of expectation confirmation theory (ECT) developed by Richard Oliver in 1977. The cognitive theory may help to explain the differences in student expectations for leadership skills development based on the type of MBA program delivery method selected by the student. This theory supports measuring expectations as an independent variable, which can help to explain the degree to which there may be importance of graduate students’ expectations for online learning experiences.

Richard Oliver (1977, 1980) defined ECT as a framework with four components that include: expectations, perceived performance, disconfirmation of beliefs, and satisfaction. The theory posits that an individual’s expectations for a product or service, and the individual’s perceived performance of the product or service, are combined to make an evaluation of whether expectations were met. The individual’s evaluation ultimately impacts the individual’s satisfaction with the performance of the product or service.
According to Oliver (1977), expectations are the characteristics the person anticipates for the performance of a product or service. An individual’s expectations can be shaped by variables such as prior experiences, symbolic elements, brand connotations, or communications (Johnson, Anderson, & Fornell, 1995). The second component of ECT is the measurement of an individual’s perception of how a product or service performed. Oliver (1977) maintained that an individual’s perception of actual performance of a product or service may be impacted by that individual’s expectations for the performance of the product or service.

ECT’s third component is labeled the disconfirmation of beliefs. This is a process where the individual compares the expectation for the performance of a product or service against how the individual perceived the actual performance of the product or service. The measured difference between expectations for the perceived performance of the service and the actual performance of the service is called disconfirmation.

If expectations exceed perceived performance, a positive disconfirmation results. If expectations are below perceived performance, negative disconfirmation occurs. If expectations for performance are met, disconfirmation is neutral. The theory maintains that the measurement between expectations of perceived and actual performance impacts the level of satisfaction an individual has with the performance of the product or service.

For the purposes of this study, ECT provides a framework to support the significant role that expectations have as an independent variable impacting future consumer behavior and attitudes toward a product or service (Oliver, 1980). For this research study, Oliver’s (1970) ECT theory provides support for a deeper understanding
of consumer-oriented student expectations for MBA programs, particularly programs
delivered online.

**Statement of Purpose**

The purpose of this quantitative study is to determine to what degree there may be
differences in the expectations of MBA online students and MBA classroom students for
leadership skills development in an MBA program using Dierdorff and Rubin’s (2006)
skill and competency framework.

**Research Questions**

The hypotheses for this study quantitatively explore MBA student expectations
for leadership skills development utilizing the competency framework advanced in
Dierdorff and Rubin’s (2006) research study. The hypotheses are:

**H1:** There is a statistically significant difference in expectations for leadership
development related to developing leadership behaviors between MBA online students
and MBA classroom students.

**H2:** There is a statistically significant difference in expectations for leadership
development related to attaining leadership knowledge between MBA online students and
MBA classroom students.

**H3:** There is a statistically significant difference in expectations for leadership
development related to developing leadership skills between MBA online students and
MBA classroom students.

**H4:** There is a statistically significant difference in expectations for leadership
development related to developing work styles between MBA online students and MBA
classroom students.
Potential Significance of the Study

Policy makers in higher education are confronted with the deployment of limited institutional resources in a highly competitive environment. Online education, originally viewed as an auxiliary program to help reduce the cost per student expense, is now considered by policy makers to be an integral program component of higher education’s long-term strategic planning with potential for impacting an organization’s financial sustainability. The growth in online programs is evidenced most predominantly in business schools where the demand for business degrees has outpaced all other degree programs at the graduate level since 2012 (NCES, 2014).

The GMAC’s survey of MBA prospects reported differences in student expectations for MBA programs based on classroom or online delivery mode (GMAC, 2016a). Jenkins (2016) concluded that the study of leadership is predominantly grounded in classroom-based settings and that scholarly knowledge of leadership development in online settings is deficient. Although there is ample scholarly research of general student expectations for online learning in graduate programs and student expectations for leadership development in classroom business programs, little or no research exists that studies student expectations for leadership skills development in graduate business programs delivered in an online format.

This quantitative research study analyzes the MBA online student and MBA classroom student expectations for leadership skills development in an MBA program delivered online and, in the classroom, to determine to what degree differences in expectations for leadership skills development exist. Dierdorff and Rubin’s (2006) research provides a framework for categorizing skills into four competency areas of
behavior, knowledge, skills, and workstyles. The research results, based on this framework, can provide insight into the differences between online and classroom student expectations for specific leadership skill set areas.

Business school leaders and program directors can use the results of this research to support decisions for allocating resources for faculty, course design, and technology to create equivalent experiences for leadership development in online graduate business programs. Faculty and instructional design practitioners can use the results of this research to analyze how course content and design features can meet student expectations for leadership skills development in the online format. Students enrolling in online MBA programs will ultimately benefit from knowing that expectations for leadership skills development can be met in an online MBA format.

As the growth of business administration enrollments outpace other disciplines (NCES, 2015) and competition for MBA student enrollments increases, a research study that provides a deeper understanding of a student’s expectations for MBA online programs may support more positive outcomes for the students, their employers, and the institution. Research that supports the effective use of institutional resources for the recruitment and retention of students by meeting student expectations for leadership skills development in graduate business programs may lead to positive outcomes for an organization’s long-term stability and growth.

Christensen and Eyring (2011) and Bowen (2013) offered dramatic warnings of extinction to decision makers in higher education if they could not successfully understand and maneuver the increased competition, budget constraints, technological advances, and the evolving student consumer expectations for online programs. As higher
education continues to include online programs in its long-term strategic initiatives, understanding and meeting the student consumer expectations for the online program format is essential for program success (Allen et al., 2016).

**Definitions of Terms**

For purposes of this research study, the terms are defined as follows:

*Behavior Competency* – activities that incorporate behaviors used in accomplishing general work goals (Dierdorff & Rubin, 2006).

*Classroom MBA* – an MBA program where more than 60% of the courses are taught in a face-to-face classroom setting.

*Competency* – skills, abilities, knowledge, or attributes that can be taught or developed (Northouse, 2016).

*Expectations* – assumptions about the anticipated performance of a product or service (Oliver, 1977).

*Knowledge Competency* – a collection of facts and information about a particular field required for job performance (Dierdorff & Rubin, 2006).

*Online Learning* – an educational experience that is initiated and supported by the Internet, where the instructor and student are separated by time and distance with no required face-to-face in person sessions (Sener, 2015).

*Online MBA* – an MBA program where the courses are delivered online without face-to-face classroom interaction between faculty and students.

*Student Expectations* – attributes a student anticipates for a learning experience (Appleton-Knapp & Krentler, 2006).
Skill Competency – skills related to the capacity to perform learned activities and for acquiring information (Dierdorff & Rubin, 2006).

Workstyle Competency – personal characteristics or traits that may affect job performance.

Chapter Summary

Higher education is confronted with reduced funding, increased competition for enrollments, technological advances to its course delivery methods, and the expectations of a consumer-oriented student. The challenges are predominant in schools of business in higher education as business degrees, including the MBA degrees, experience the highest level of student demand among graduate disciplines (NCES, 2015). Understanding MBA student expectations for leadership skills development in MBA online and MBA classroom programs contributes to achieving positive organizational outcomes for higher education. As student demand and resource requirements grow for MBA business programs, meeting student expectations is essential to compete effectively.

Research studies provide evidence that leadership development is an expectation for business school curriculums. However, scholarly research of leadership development is focused predominantly on classroom environments with little or no research directed toward studying student expectations for leadership skills development in MBA online programs. This gap in the research literature provides support for researching student expectations for leadership development in online MBA programs, which may impact the allocation of resources and affect an organization’s ability to remain competitive and financially sustainable.
Chapter 2 reviews the literature discussing the growth of online programs and the stakeholder expectations for graduate business programs. Chapter 2 also examines student and employer expectations for leadership skills development in MBA programs and the leadership competency frameworks supporting this study.

Chapter 3 discusses the methodology for this study including the research context, participants, survey instrument, and data analysis procedures. Chapter 4 reviews the major findings, and Chapter 5 discusses the implications of the research results, the limitations of the study, and the recommendations for practice and further research.
Chapter 2: Review of the Literature

Introduction and Purpose

Online education, termed a *disrupter* by Christensen and Eyring in 2011, is now considered an integral component of program planning in higher education as reported by Allen et al. (2016). As online enrollment grows, so do the challenges of managing online education in a competitive environment. The purpose of this literature review is to discuss the growth environment of online education and the evolving student expectations for online programs in higher education’s graduate business schools. The review identifies a gap in the research literature addressing student expectations for leadership skills development in online graduate business programs including MBA programs.

Online Program Growth

Online learning has evolved and grown from the early practice of distance education. In the United States, the origins of distance education can be traced to 1873 when Anna Ticknow developed correspondence courses through the mail to reach women homemakers. Significant advances in technology have allowed for distance learning to transform using radio in 1921 and television in 1934. By 1985, Internet expansion created a new global platform available for online course delivery (Moore & Kearsley, 2011).

Since 2000, advancements in Internet technology and increased accessibility to that technology have transformed the online education platform into the disruptive
innovation predicted by Christensen and Eyring (2011). In 2014, 5.8 million students took at least one online course in higher education, which represented 28% of total enrollments, and it was 3.9% higher than the previous year (Allen & Seaman, 2015).

Public institutions command the largest portion of the total enrollments for online education with 72.7% of undergraduate and 38.7% of graduate online enrollments (Allen et al., 2016; NCES, 2015; NSCRC, 2015).

In a 2012 survey of 2,708 academic institutions, 1,895, or 65% of institutions, reported that academic programming was expanded to include at least one fully online program in addition to classroom-based programs (Allen & Seaman, 2015). In the same survey, 70% of chief academic officers reported that online learning was included in their long-term strategic planning (Allen & Seaman, 2015). One year earlier, Parker, Lenhart, and Moore (2011) cited a Pew Research Center survey, conducted in association with the Chronicle of Higher Education, which found that of 1,055 presidents of public and for-profit colleges and universities, 77% reported offering online courses. Based on a sample of 2,142 adults, ages 18 years and older, Parker et al. (2011) reported that 46% of those who had graduated from college in 2000 or later said they had taken an online class.

**Competition.** In contrast to the growth in online enrollments are the declines in overall enrollment in higher education. In fiscal 2013, there were 11.1 million full-time-equivalent students enrolled in a public postsecondary institution, which is 1.3% lower than the previous year (NCES, 2014). The college enrollment declines are indicative of demographic data from the U.S. Census Bureau (2014), which reported a population decrease between 2010 and 2013 of over 800,000 young adults in the college-eligible age group of 15- and 19-years old. According to Juday’s (2014) University of Virginia
Demographic Research Group report, the declines in the college-aged population are estimated to continue. Juday (2014) indicated that in 2011, there were 18.1 million people between the college ages of 18- and 21-years old, but by 2014, this number declined to 17.4 million.

Compounding the overall enrollment decline in higher education is the increased competition for students. In online education, for-profit organizations and new nonprofit models are impacting total enrollments in higher education (Bowen, 2013; Christensen & Eyring, 2011). Smith (2015) reported in Inside Higher Education that for-profit organizations that operate online, such as the University of Phoenix, Walden, and Capella, garnered 13% of total college enrollments in 2010. Other established for-profit competitors who offer campus and online programs represented 7% of total enrollments in 2010, according to the Career Education Colleges and Universities Association (2014).

Non-traditional, for-profit online education organizations, such as Coursera, grew to 2% of total enrollments in 2010 using innovative instructional models such as skill certifications and competency badges (Christensen, Horn, Caldera, & Soares, 2011). Another type of competitor for online enrollment is the nonprofit consortium such as Western Governors University. The consortium delivers no courses directly but offers access to courses at more than 40 educational and corporate institutions using a competency-based model. The increase in the number of providers of online education is reflected in the number of institutions offering MBA programs, which increased from 68 to 104 between 2010 and 2015 (Bal et al., 2014).

**Institutional costs.** Higher education is confronted with complex economic and competitive pressures. State support for higher education decreased by 7.6% in 2012,
according to the Center on Budget Policies and Programs (2015). According to Bowen (2013), institutional budgets are further pressured by the systematic annual growth of faculty payroll and institutional expenses. Administrators in higher education looked to the growth in online enrollments as a method to reduce cost-per-student expenses, but data from research studies did not support the premise (Kilburn et al., 2014).

Koenig (2011) conducted a research study with three higher-education institutions in New York State to analyze and compare costs for classroom and online delivery methods. Koenig’s (2011) study found costs were $10,000 higher for an online course, compared to a classroom course, and that online courses had a $500 higher cost per student compared to a classroom course.

Neely and Tucker (2010) conducted qualitative research using interviews to evaluate the costs of online course delivery and found that significant per-course costs were under accounted. Neely and Tucker (2010) concluded that hidden costs resulting from faculty and technology support were spread across institutional budgets and were not included in the cost-per-student calculation for online learning. Costs related to online course delivery were detailed in an online education research analysis by Guri-Rosenblit (2006), which cited the initial investments in technology and the recurring expenses of faculty training, instructional design, student support, maintenance, and production as high cost factors for online course delivery.

Similar findings related to higher faculty costs for online learning were found in Smith and Mitry’s (2008) investigation into costs and quality of online programs. Smith and Mitry (2008) concluded that the costs of online programs were not in building and facilities, which in most cases were fully amortized, but in the variable costs of faculty
hours spent in online courses over hours spent in classroom courses. Faculty were also a factor in Arbaugh and Duray’s (2002) empirical investigation of two online MBA programs to study student learning and satisfaction with web-based courses. The study concluded that the higher costs of online learning were impacted by the smaller class sizes required to maintain comparable learning outcomes and student satisfaction with online course delivery.

In contrast with the literature discussing the costs of delivering online programs, Estelami and Rezvani’s (2011) research into the pricing determinants of online MBA programs highlighted the revenue perspective of online MBA programs. In the study of 115 online MBA programs, Estelami and Restavi (2011) concluded that online programs had wider profit margins than classroom programs because of low technology costs and economies of scales without the institutional costs of securing real estate and maintaining physical facilities.

**Student consumer.** In the context of the competitive environment and perspectives regarding the costs of delivering online education, Titus (2008) and Mark (2013) maintained that increased competition for students will force post-secondary institutions to be more responsive to customer satisfaction. Alves and Raposo (2007) tested a model of student satisfaction in their quantitative research with 2,687 university students. Although the study demonstrated that university image was the variable impacting student satisfaction in their study, Alves and Raposa’s (2007) analysis concluded that the impact of student expectations in the model was a warning to higher education to embrace a better orientation to the market. Hubbell’s (2015) research study, using grade point average and student evaluations at a business undergraduate program,
was framed in the context of a student consumer. Hubbell (2015) concluded that the course syllabus was a customer contract between student, faculty, and the institution.

Hossain’s (2009) quantitative study of 247 business students to investigate student’s shopping behavior, on faculty rating websites, concluded that a student-consumer perspective fueled the use of third-party portals. Gremler and McCollough’s (2002) empirical study of a consumer marketing concept and student satisfaction guarantees researched 262 business students at a Northwestern university. The researchers found that satisfaction guarantees were effective in impacting course evaluations and course satisfaction. Granitz and Greene (2003) further expanded the competitive customer orientation of students in higher education by applying an electronic commerce marketing model to online learning. The Granitz and Greene (2003) model measured customer marketing concepts, such as customer service, customer experience, and self-service ease of use, in the research model.

The student consumer approach to higher education was also discussed in Estelami and Rezvani’s (2011) research of online MBA program pricing. The quantitative study of structural price determinants of 115 online MBA programs identified students’ reliance on third-party organization program endorsements as a consumer activity. The researchers concluded that third-party consumer-style program endorsements impacted the pricing of MBA programs.

**Student Expectations**

Student expectations are discussed in the literature from the students’ perspectives of satisfaction, technology, flexibility, and engagement with faculty and other students.
Satisfaction. In consumer literature, meeting customer expectations results in high levels of customer satisfaction, which is regarded as an indicator of successful consumer-orientated organizations (Szymanski & Henard, 2001). The consumer perspective in higher education creates an institutional focus on maintaining student satisfaction by meeting student expectations (Mark, 2013).

Low’s (2000) research of 423,000 student attitudes at 745 institutions to determine the levels of student satisfaction was based on consumer theory and posited that meeting student expectations can be measured by student satisfaction. Low (2000) concluded that meeting student expectations leads to higher rates of persistence or retention. In a similar study to research the impact of student expectations on retention rates, Longden (2006) analyzed the survey responses of 547 first-year students. Longden (2006) found that meeting student expectations for institutional services correlated to student satisfaction.

The effect of student expectations and student satisfaction on an organization’s long-term sustainability was highlighted in a quantitative study of student satisfaction by Endres et al. (2009). The study surveyed 277 online MBA students to measure student satisfaction with faculty, online tools, course materials, and engagement. The researchers concluded that student satisfaction is multifaceted and impacts the student’s intent to recommend the institution to other students. Kim, Liu, and Bonk (2005) found similar results in their study of 100 online MBA students. The research concluded that satisfaction with meeting expectations for engagement and flexibility correlated with positive recommendations of the program.
Technology. Online learning’s unique characteristics of using technology as a delivery mode creates a differentiator for analysis of student expectations for online courses. Harris, Larrier, and Castano-Bishop (2011) developed a survey to measure student expectations for online learning. The 44-item survey, piloted with 17 online graduate students, found students had the highest expectations for technology-related items such as computer skills and proficiency with the course delivery platform.

Cinar and Torenli’s (2010) quantitative research of student expectations for online course design surveyed 125 two-year degree online students to measure expectations for online courses. The results identified technology attributes, such as video, web conferencing, and technical support, as very important or important student expectations for online learning by over 70% of survey respondents. Cinar and Torenli (2010) cautioned, however, that the results may have reflected a younger student demographic that is technologically experienced.

Arbaugh (2005) conducted empirical research to determine factors supporting an optimal design for online MBA courses by surveying 652 online MBA students at Midwest university. Arbaugh (2005) found that technological variables, such as electronic media variety in coursework, interactive communication tools, and technology’s ease of use, had the highest correlation to student satisfaction with online learning. Student expectations for technology ease of use were also a finding in a research study of 195 online students by Sahin and Shelley (2008). The researchers concluded that student expectations for technology use explained 57% of variances in student satisfaction with online learning.
Flexibility. The ability for students to access course content without the restrictions of time and distance in online learning provides flexibility for online learners. Student expectations for flexibility in online courses were found to be the predominant motivation or expectation for online learning in a quantitative study of perceptions of online learning by Wyatt (2005). The ability to work from home and accommodate work and class schedules were cited as two of the top three expectations of 120 randomly selected classroom and online students at a Midwestern university.

Bocchi et al. (2004) reached similar conclusions in a study that analyzed retention factors of three online MBA cohorts in Georgia. Survey responses from 64 students identified flexibility related to work schedules, family life demands, and travel costs as the leading motivations for enrolling in the program. Braun’s (2008) quantitative research further supported the importance of flexibility. In a study with 90 online graduate students, Braun (2008) found that after financial reasons, schedule flexibility and the flexibility to work from home were cited by over 75% of respondents as an online program expectation.

Research results from Rydzewski, Eastman, and Bocchi’s (2010) survey of 105 online MBA students at a southern public university, found that flexibility and availability were the highest characteristics that were important to online MBA students. Ilgaz and Gulbahar’s (2015) quantitative research in Turkey of student expectations for online learning also found that course accessibility and flexibility were the predominant expectations of students in four graduate online programs. Alexander, Perreault, Zhao, and Waldman (2009) compared changes between 2000 and 2006 in student and faculty expectations for the online learning experience and found that flexibility and accessibility
in course design and delivery continued to be high expectations for the online business program experience at AACSB schools of business.

Expectations for flexibility were also highlighted in two comparative studies of perceptions of online learning. Tanner et al. (2009) surveyed 893 classroom and online students at two southern regional universities and found that the highest expectations were for flexibility, no structured classes, and studying at one’s own pace. Similar conclusions were found in Fish and Snodgrass’s (2015) quantitative comparative study of 107 classroom and online students at a private college in New York State. The study found that graduate online students had higher expectations for course flexibility and independence than classroom students.

**Engagement.** The technology platform in online learning creates a unique interface for faculty and student interaction, and it is discussed in student expectation research for online education. Holzweiss et al. (2014) researched perceptions of 60 online graduate students to analyze optimal learning experiences. Their qualitative study research results identified engagement factors were central to students’ perception of successful online learning courses. Responses cited timely, regular feedback and statements of encouragement as key expectations for engagement levels in graduate online environments.

In a similar study of graduate online students at a southern research university, Deggs, Grover, and Kacirek (2010) used e-focus groups and found the strongest student expectation was for faculty communication and timely online feedback. Mupinga, Nora, and Yaw (2006) concluded from their research of student learning styles in an online environment with 87 undergraduate online students, that the top two expectations of
online students were for communication with the faculty and for faculty feedback. Bailie’s (2014) research also included online student expectations for engagement in a comparative study with 62 undergraduate students who completed an average of nine online courses. Bailie (2014) found that 55% of online students had expectations that faculty would engage in the online course each day of the week and that student expectations for faculty responses were expected to be within the same day.

**Graduate Business Programs**

At the same time that distance education was developing in the late 1800s, the first business school, Wharton, was established at the University of Pennsylvania in 1881. Dartmouth established the Tuck School of Business in 1900 as the first graduate-level business school, followed by the establishment of the Harvard School of Business in 1908 (Roe et al., 2015). Early programs were designed as full-time, cohort models focused on technical management skills, such as accounting and industrial processes, to boost productivity. In 1910, a total of 110 advanced business degrees, master of science degrees in business, were awarded (Herrington, 2010).

Interest and popularity in advanced business degrees continued to grow as graduates achieved leadership positions in industry and government (Herrington, 2010). The MBA degree grew internationally in the 1950s as business schools in Canada, South Africa, France, and Korea began to offer the MBA degree. In 1986, technology was integrated into the classroom when the Crummer Graduate School in Florida became the first school to require each student have a laptop. By 1987, an online MBA was introduced by Aspen University, a for-profit institution. In 1994, AthaBasca, a Canadian university, introduced an online MBA in an executive format (Roe et al., 2015).
Described as the *go to* degree for career mobility and improved earnings, MBA program enrollments grew, particularly for the working professional demographic (GMAC, 2016a). In a study to examine demographic profiles of adult master’s degree students, Frazier, Young, and Fuller (2012) surveyed 407 graduate-level business students at a southern university and found that 56% were an older, working-professional student between the ages of 31 and 45 years, returning to graduate school part time for career advancement. Similar results were found in an empirical study of MBA student characteristics by Cao and Sakchutchawan (2011). The researchers analyzed demographics of 2,531 MBA students at a western university and concluded that a similar older demographic, average age of 35.6 years, was enrolling in online MBA programs at a higher rate than for MBA classroom courses. Beqiri, Chase, and Bishka (2010) also found that the profile of an older, experienced student was attracted to online business graduate programs.

In addition to the growing working professional enrollments, there was a shift in gender balance in MBA programs from 1955 when 95% of graduate business degrees were awarded to males. Cao and Sakchutchawan’s (2011) empirical study of MBA student characteristics found female enrollments in MBA online courses at 50.1%.

**Graduate business program expectations.** In addition to the studies of student expectations for online courses, research literature discusses expectations specific to graduate business programs from the perspectives of students, employers, and business schools. The GMAC is a nonprofit organization composed of graduate management business schools from around the world. The organization is the leading source of research for graduate management education. GMAC conducts annual surveys of
GMAC conducted a research study with MBA prospects to assess student expectations for MBA programs to support analysis of recruitment and admission trends. The prospective student survey report was based on a sample taken from more than 10,000 MBA candidates registered for the Graduate Management Admission Test (GMAT). The report categorized responses by MBA program type and delivery mode, such as full-time classroom or professional MBA, which includes online programs. The survey results indicate that expectations of MBA prospects vary based on the program type the candidate is considering for admission. For example, 27% of prospects for full-time classroom MBA programs seek to enhance their career, compared with 35% of prospects for professional and online MBA programs who seek to enhance their career (GMAC, 2016a).

A difference in expectations was also reported for prospects interested in entrepreneurship. For full-time classroom prospects, 29% indicated expectations for entrepreneurship, compared to 22% of professional and online prospects. Networking was reported as a goal of full-time classroom students, but it was not reported by professional online MBA prospects. Conversely, obtaining a credential and a promotion were reported as expectations by professional and online MBA prospects but not for full-time classroom-based prospects.

The expectations of employers and recruiters for graduate business programs was also studied by GMAC. In 2016, GMAC reported corporate recruiter survey results that
represented 842 employers in 530 companies and 40 countries (GMAC, 2016c). The data indicated that employers and recruiters ranked leadership potential of MBA graduates as the highest or second highest expectation for students being recruited for all industrial sectors (GMAC, 2016c).

The survey responses showed 88% of corporate recruiters who work directly with business schools, planned to hire MBA graduates in 2016 to fill leadership pipelines in organizations, an 8% increase over 2015 (GMAC, 2016c). GMAC also conducted a supplemental survey in 2015 of 1,282 employers in six countries, including the United States, which concluded that business schools attract employers who recruit MBA graduates to build leadership within organizations (GMAC, 2016c).

In a similar study to examine employer expectations for graduates of MBA programs, Muff (2010) conducted a qualitative survey of 30 chief executive officers and human resource directors in diverse industries. The researcher found that employer expectations had leadership skills as a key competency expected in MBA graduates. The research cited behavioral skills, such as self-management, adaptability, and communications, as competencies sought by employers. The Prince, Burns, and Manolis (2014) analysis of 310 part-time MBA students at a public university found that employers placed a high value on the future advancement prospects of workers enrolled in MBA programs.

**Leadership development expectations.** In addition to GMAC’s research of student and employer expectations for MBA programs, scholarly research discusses leadership development as a structural component of MBA programs and graduate business education (Rubin & Dierdorff, 2013). More specifically, research of
expectations for leadership development in graduate business programs is studied from the perspective of business schools, MBA students, and curriculum delivery, and it is grounded in classroom-based programs (Quigley, 2013; Rubin & Dierdorff, 2009).

Sowcik and Allen’s (2013) evaluation of the impact of the National Leadership Research Agenda on business schools reported that mission statements of top business schools include leadership development as a central theme for business programs. Sowcik and Allen (2014) cited Northwestern University’s mission statement to “educate, equip and inspire leaders” (p. 58) and MIT’s mission to “develop principled, innovative leaders” (p. 58) as demonstrations of how graduate business school programs create expectations for prospective students that graduate business programs will provide leadership development. Similar findings of business schools communicating expectations for leadership development were found in studies by Muff (2010), Rubin and Dierdorff (2011), and Starkey and Tempest (2008).

Klimoski and Amos (2012) conducted a quantitative study of business school practices in delivering evidence-based leadership development education. Survey responses from 183 MBA program directors revealed that 72% of respondents indicated leadership skills development was fundamental to an MBA program. Klimoski and Amos (2012) recommended a new paradigm model for leadership development in business schools, in the conclusion of their research, but the model components were directed to full-time classroom MBA programs.

Benjamin and O’Reilly (2011) conducted an ethnographic study of leadership challenges faced by 55 MBA graduates in early career stages to examine leadership education factors in MBA programs impacting the graduates’ transitions to leadership
roles. Benjamin and O’Reilly (2011) concluded that MBA programs are focused primarily on developing student skills for general management and not leadership. The researchers discussed only classroom-based recommendations and suggested further research of methods to teach leadership competencies using face-to-face methodologies.

Toor’s (2011) qualitative study of leadership development in an MBA program reported data from 49 executive leaders from Singapore’s construction industry, enrolled in a classroom-based cohort program. The researcher concluded that business schools must first define leadership and management competencies for leadership development initiatives in business programs. In another classroom-based MBA cohort study, Boyatzis, Passarelli, and Wei (2013) conducted an exploratory study of emotional, social, and cognitive competencies using 1,148 classroom students in 16 MBA cohorts. The researchers recommended intentional, pedagogical, interventions that would support leadership competency development for classroom-based MBA cohorts, particularly activities related to improving social intelligence and action learning.

Online MBA programs were not specifically highlighted in Bruce’s (2010) quantitative study when researching MBA graduate perceptions of the value of an MBA degree. Bruce (2010) used GMAC data from 16,268 MBA students in full-time, part-time, and executive classroom programs to measure attitudes about the value of an MBA degree relating to job performance and satisfaction. Collinson and Tourish’s (2015) essay outlined the need for critical leadership studies based on a pedagogical evaluation of traditional leadership classroom teaching methods such as case studies, team projects, in-class lectures, feedback sessions, and speaker series. Collinson and Tourish (2015) concluded that the classroom methods were lacking in meeting the needs of new
leadership education pedagogies, but they only offered conclusions focused on classroom methods without the discussion of the impact of online course delivery.

The Quintana, Ruiz, and Vila (2014) research developed a structural equation model for leadership competency development by analyzing data results from a 2005 survey entitled REFLEX, which was distributed to 40,000 individuals in 14 countries. Although leadership competencies developed in graduate business education were a component of the researchers’ model, the educational methods cited for competency development were not directed to online methods but to classroom-based activities such as in-class discussions and oral presentations.

A research study, also grounded in classroom-based activities with no online methods, was Varela, Burke, and Michel’s (2013) study of managerial competency development in MBA programs. The research used stage, action, and social learning theories to suggest a pedagogical framework to develop leadership competencies. Varela et al. (2013) concluded that MBA program curriculums could develop managerial competencies, but that development of leadership competencies could not be achieved in an MBA program, because leadership development was impacted by experience.

Research literature is limited for examining the development of leadership competencies in the online program format. However, two studies provide insight into online leadership development. The first study, by Levy (2005), is a comparative, longitudinal competency study between an MBA online program and an MBA classroom program. Levy (2005) distributed a Learning Skills Profile (LSP) survey, which measures 12 managerial competencies, to 14 MBA online students and 32 MBA classroom students at the beginning and end of the MBA program. Results showed increased means
for six of the 12 competencies, including goal setting, information gathering, and sense making, in the MBA online program. For the MBA classroom program, only three competencies showed increased means. Levy (2005) concluded that although the study had limitations with sample size, the findings indicated that the online format for an MBA program may enhance development of leadership and management competencies. Levy (2005) also concluded that the findings were supported with prior research that students in online learning have a perceived higher level of skill development and interest in learning.

The Jenkins (2016) quantitative study found that instructional and assessment strategies for teaching leadership online are underdeveloped in the literature. Jenkins (2016) surveyed 118 instructors who taught leadership online, which included 81 instructors who taught at the graduate level. Jenkins (2016) concluded there were significant differences in the instructional methods used for online leadership development and for classroom-based leadership courses. Jenkins (2016) cited the use of discussions and group work as heavily weighted elements in classroom leadership courses and found that the same elements were excluded from online leadership courses. Redpath’s (2012) comparative review of research of online learning concluded that the lack of research in online management education is a bias resulting from business schools’ focus on historic pedagogies grounded in traditional classroom models.

Leadership skill frameworks. A body of research has focused on understanding leadership skills with studies that develop or examine frameworks that identify and categorize skills and competency areas. Mumford et al. (2007) created a leadership skill
stratoplex with four categories of leadership skills in the research study of 1,023 professional employees at an international agency of the U.S. government.

The four leadership skills categories were cognitive, interpersonal, business, and strategic skills. According to Mumford et al. (2007), cognitive skills encompass basic skills such as reading, writing, comprehension, and the ability to adapt and think critically. Interpersonal skills include the social skills that relate to influencing or interacting with others. Business skills are specific functional skills such as managing personnel resources, managing material resources, and managing financial resources. Strategic leadership skills are considered highly conceptual and include problem identification skills, visioning, and identification of causes and consequences.

Kalargyrou et al. (2012) conducted a mixed-methods study with 236 hotel industry educators based on the four-competency stratoplex research of Mumford et al. (2007). Kalargyrou et al. (2012) recommended that a fifth competency of personal values be added to the four competency groups. The personal value competency included skills related to ethics, fairness, and responsibility.

Mayo et al. (2012) conducted a leadership competency survey of 221 MBA students in a classroom-based program in Spain. The study used a leadership skills framework with four competency groups to examine leadership self-image. The four competency groups were interpersonal understanding, which included skills for empathy and respect; behavioral flexibility, which encompassed skills to manage behaviors for different circumstances; self-confidence, which encompassed skills for decision making and organizational goal setting; and self-management, which included skills to work independently.
In a mixed-methods study to analyze competencies of business graduates, Azevedo, Apfelthaler, and Hurst (2012) identified a cluster of eight competencies required for business graduates. The study used 25 graduates and 14 employers in four European countries. The eight competency groups included influencing and persuasion, teamwork, relationship building, critical thinking, self- and time management, ability to see the big picture, presentation, and communication.

In a similar study of competencies required of business graduates, Teijeiro et al. (2013) surveyed 1,023 business graduates and 907 employers in Spain and classified skills into three competency areas. The competency areas included instrumental skills, which are cognitive skills necessary for understanding and operation of professional activities; interpersonal skills, which included the ability to interact and network with people and teams; and systematic skills, which included skills for conceptual understanding and knowledge.

**Dierdorff and Rubin (2006) competency framework.** The purpose of Dierdorff and Rubin’s 2006 empirical research was to create a comprehensive model of managerial competencies. Leadership skills and leadership effectiveness are derived from, and positively correlated to, managerial skills and competencies (Lowe, Kroeck, & Sivasubramaniam, 1996; Yukl, 1989). Dierdorff and Rubin (2006) used a sample of 52 managerial occupations within the U.S. Department of Labor Occupational Information Network (O*NET) database, representing data of 8,633 employers, to analyze four work role requirements. Dierdorff and Rubin (2006) derived the four-competency framework of behavior, knowledge, skills, and work styles from a factor analysis of the data.
The behavior competency data represented the results from a 41-question O*NET survey from 2,103 respondents (Dierdorff & Rubin, 2006). The survey was categorized into four areas including information input, work output, mental processes, and working with others. The knowledge competency data represented the results from 33 questions in the O*NET survey, from 2,189 respondents, addressing facts required for particular fields. The skills competency data represented the results from 35 questions in the O*NET questionnaire from 2,153 respondents (Dierdorff & Rubin, 2006). The O*NET skills survey included seven categories relating the capacity to perform learned activities and working with information. The workstyles competency data represented the results from 40 O*NET survey questions from 2,188 respondents. The O*NET workstyles survey comprised items related to personal characteristics such as achievement orientation, conscientiousness, social influence, and independence.

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<th>Behavior</th>
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<td>Facts and information required for successful job performance:</td>
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<td>Managing human capital</td>
<td>General business functions</td>
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<td>Managing strategy &amp; innovation</td>
<td>Human behavior and society</td>
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<td>Managing tools and technology</td>
<td>Technology, production, design</td>
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<td>Managing decision making process</td>
<td>Media communications and delivery</td>
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<th>Skills</th>
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<td>Skills related to the capacity to perform activities or to acquire information:</td>
<td>Work related personal characteristics that may affect job performance:</td>
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<td>Interpersonal skills</td>
<td>Learning, leading, motivation</td>
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<td>Operations skills</td>
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<td>Strategic system skills</td>
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<td>Foundational skills</td>
<td>Generative thinking</td>
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*Figure 2.1.* Four competency areas and corresponding skills. Adapted from “Toward a Comprehensive Empirical Model of Managerial Competencies: Implications for Management Education by E. Dierdorff and R. Rubin, presented to the Management Education Research Institute, McLean, VA. Copyright 2006 by MER Institute.
Dierdorff and Rubin (2006) conducted principal components analysis and parallel analysis for the response data in each of the four O*NET work role requirement groups. The results of the factor analysis created the 18 skills categorized into four competency areas of behavior, knowledge, skills, and workstyles. The competency areas shown in Figure 2.1 support the development of the research study hypotheses.

Dierdorff and Rubin (2006) used a standardized score range of 0 to 100 for the groups and each skill. The results indicated that as a group, the behavior competency was the highest (>.50) of the four competencies in relative importance.

Dierdorff and Rubin (2006) also examined the relative importance of skills within the four competency areas using the standardized scores. In the behavior competency, Dierdorff and Rubin (2006) found that managing human capital and the managing decision-making process were highest in relative importance (>.65). In the skills category, the results showed that interpersonal skills were the highest in relative importance (.68). In the knowledge competency group, the skill with the highest relative importance was knowledge of general business functions (.55). In the workstyle competency group, conscientiousness was highest in relative importance (.85).

**Chapter Summary**

The growth of online program enrollments in higher education in an increasingly competitive, customer-focused environment, while institutional resources are limited, has created scholarly interest in researching student expectations for online learning. Understanding student expectations for online and classroom programs can impact indicators, such as recruitment, retention, and student engagement, which lead to enrollment stability for organizations in higher education.
Research studies for online business programs analyze how the distance between faculty and students created by the online technology platform affects student expectations for support services, faculty engagement, course design, and technology applications. Comparison studies of student expectations for classroom and online programs highlight the differences in expectations with respect to flexibility, communication, support, and media usage. However, research studies that discuss the delivery of leadership curriculum content and student expectations for leadership development in graduate business programs are limited to classroom environments (Jenkins, 2016; Redpath, 2012), which creates a gap in the literature for the study of student expectations for leadership skills development in MBA programs.
Chapter 3: Research Design Methodology

Introduction

The growth of online enrollments over the last 10 years has created opportunities and challenges for higher education and schools of business with graduate business degree programs, which include the MBA degree (Allen & Seaman, 2015; Bowen, 2013). The NSCRC (2015) reported that, in 2014, the highest number of graduate degrees awarded were in business disciplines, which represented 25% of the total graduate degrees conferred. Between 2011 and 2014, enrollments in online MBA programs grew by 9% (NCES, 2014).

The GMAC conducted a survey of prospective MBA students to examine student expectations for MBA programs (GMAC, 2016a) and found that that MBA students had expectations for skill development in order to assume career positions that have leadership and management responsibilities. The characteristics of students who enroll in online MBA programs may be different from students enrolling in traditional MBA classroom programs when it comes to demographics and student expectations of an MBA program. Cao and Sakchutchawan (2011) found that MBA online students have an older demographic and value flexibility and convenience.

The growth of online enrollments is framed in higher education’s environment of reduced funding, increased competition, and recruitment of an evolving consumer-oriented student (Allen & Seaman, 2015; Bowen, 2013; Christensen & Eyring, 2011). The Center on Budget and Policy Priorities (2015) reported that between 2008 and 2015,
overall state funding for higher education was reduced by 7%. Institutional budgets may also be impacted by online course delivery costs, which can be significantly greater than classroom course delivery (Guri-Rosenblit, 2006; Njenga & Fourie, 2010). There was more competition for MBA students, with 952 public and private institutions offering MBA programs in multiple formats, in 2014 (AACSB, 2015). The consumer orientation of students is intensified as students increase pressure on higher education to provide a financial return on the tuition investment (Mark, 2013).

The convergence of reduced funding and growing competition for a consumer-oriented student creates pressure on higher education to better understand student expectations for graduate business programs to compete successfully and maintain enrollment stability. The research literature for leadership skills development is focused on student expectation data collected in classroom environments (Jenkins, 2016), creating a gap in the literature for research studies of graduate business online programs. The purpose of this quantitative study was to investigate if there are differences in expectations of MBA online students and MBA classroom students for leadership skills developments in an MBA program using Dierdorff and Rubin’s (2006) skill and competency framework. The hypotheses for this study were:

H1: There is a statistically significant difference in expectations for leadership development, related to developing leadership behaviors, between MBA online students and MBA classroom students.

H2: There is a statistically significant difference in expectations for leadership development, related to attaining leadership knowledge, between MBA online students and MBA classroom students.
H3: There is a statistically significant difference in expectations for leadership development, related to developing leadership skills, between MBA online students and MBA classroom students.

H4: There is a statistically significant difference in expectations for leadership development, related to developing work styles, between MBA online students and MBA classroom students.

Research Context

The State University of New York (SUNY, 2016) is a public higher education institution composed of 64 campuses that include university research centers and comprehensive, technology, and community colleges. In 2016, the SUNY system enrolled 442,940 students in 7,000 degree programs spanning the associate, bachelor’s, master’s, and doctoral degree levels. SUNY’s graduate-level enrollment in 2016 was 40,218 students in 1,678 degree programs (SUNY, 2016). Business and management-related graduate degree programs, including the Master of Science (MS) and Master of Business Administration (MBA) degrees, represent 15% of SUNY’s graduate-level enrollments (Bringsford, 2014).

The MBA graduate degree is offered at eight of the SUNY campuses in full-time, part-time, weekend, and executive formats both in the classroom and online. Of those eight campuses, SUNY Oswego (Oswego), the location of this study, is the only campus that offers an MBA degree in both the classroom and in a 100% online format.

Oswego was founded in 1861 and is located in Central New York on the southern shore of Lake Ontario, 35 miles northwest of Syracuse, NY. Oswego’s total enrollment in 2016 was 7,937 students, which includes 833 graduate-level students. The MBA program
is offered through Oswego’s School of Business, which is accredited by the Association for the Advancement of Collegiate Schools of Business (AACSB, 2015), the highest level of global accreditation for a business school. In fall 2016, 298 students were enrolled in the School of Business’s three MBA graduate programs (Oswego, 2016) representing 36% of Oswego’s graduate enrollments.

The School of Business began offering the MBA degree in 1996 in a classroom setting, and in 2011, it expanded the MBA degree to also be delivered 100% online. In 2016, 60% of MBA enrollments were in the online MBA program. Oswego’s online format requires no residencies and is 100% asynchronous. Oswego’s MBA online program was selected by SUNY as the first and only graduate program for the Open SUNY initiative, established in 2014. The system-wide SUNY initiative selected degree programs that were recognized as benchmark programs for the SUNY system based on accreditation, student services, and national ranking. In 2015, the *U.S. News & World Report* ranked Oswego’s MBA online program 20th in the country out of 165 listed MBA online programs (U.S. News, 2015).

**Research Participants**

Oswego offers three MBA programs including management, public accounting, and health services administration. The research participants for this study were students who were enrolled in Oswego’s MBA in management program, which is offered both in the classroom and in an online setting. There were 149 MBA management students enrolled in the spring 2017 semester of which 62% were male and 38% were female. Of the total MBA management enrollment, 30% of the students were enrolled in the classroom program, and 70% of the students were enrolled in the online program. In the
classroom program, 68% were male and 32% were female. In the online program, 61% were male and 39% were female (Oswego, 2016). MBA students in the public accounting and health services administration program were not included in the study because the programs do not have both the classroom and online option for the degree.

The size of the research study sample determines to what degree the sample represents the population (Fowler, 2014). However, Dillman, Smyth, and Christian (2014) recommended adjusting the sample size formula to include a finite population correction, which accounts for a known target population. For this research study, the target population of MBA management students at Oswego was known and finite at 45 students enrolled in the MBA program that was delivered in the classroom and 104 students enrolled in the MBA program delivered online (Oswego, 2016). To make generalizations of the population at a 95% confidence level with a 5% margin of error, the study required 40 respondents from the MBA classroom group and 82 respondents from the MBA online group.

**Instruments Used in Data Collection**

The web-based survey (Appendix A) for the research study comprised questions excerpted from two separate GMAC surveys used with MBA prospective students and MBA program alumni. GMAC provided the researcher with the two questions and approved the use for this research study (Appendix B).

For general expectations, the first section of the survey for this current study was excerpted from a question in GMAC’s survey to prospective students for MBA programs (GMAC, 2016a). The GMAC survey, used since 2002, was administered in 2015 to 10,017 prospective MBA students who registered for information about MBA programs.
through GMAC’s website. The research survey listed 17 items that were expectations for an MBA program. The survey asked participants to rate their level of expectation for each item based on a 5-point Likert scale with: 5 = very high expectation, 4 = high expectation, 3 = moderate expectation, 2 = low expectation, 1 = very low expectation, and 0 = no expectation.

The second part of the survey, listing leadership skills development expectations, was excerpted from GMAC’s annual survey to alumni of MBA programs (GMAC, 2016b). The GMAC survey was administered in 2015 to 14,279 MBA graduates from 275 MBA programs, representing 70 universities in 20 worldwide locations (GMAC, 2016b). The leadership skills expectations for this current research study survey represented 18 competencies that were used by GMAC as competencies related to leadership (Dierdorff & Rubin, 2006). The GMAC (2016b) alumni survey asked MBA graduates to assess the level of competencies that were developed in their MBA program.

The research participants were asked to rate the 18 leadership competencies using the 5-point Likert scale. The scale range was 5 to 1, as described earlier. An expert in instructional design, research, and evaluation reviewed the survey structure, time frame, and scale to determine the research survey questions were representative of the original questions.

The survey instrument was reviewed by tenured SUNY Oswego School of Business research faculty who had specialization in management, leadership, and organizational behavior. The survey was piloted (Dillman et al., 2014; Fowler, 2014) with four MBA Management students enrolled during the Spring, 2017 semester. The
students received an electronic introduction to the purpose of the study and a consent form outlining the benefits, risks, along with a notice of confidentiality.

The students in the pilot study were asked, upon completion of the survey, to evaluate the survey instrument for clarity of the survey’s purpose, ease of use, and the format adaptability to the technology device used for completing the survey (Fowler, 2014). Results from the pilot study were reviewed to determine if modifications to the survey instrument were required before it was administered for this research study.

**Data Collection Procedures and Analysis**

The electronic web-based survey was administered using Vovici, a web-based technology survey system used by SUNY Oswego for research projects. Vovici is a secure platform with user identification, passwords, and data storage. Vovici can be used on a PC or a Mac with common Internet browsers such as Internet Explorer, Firefox, Safari, and Chrome. The St. John Fisher College Institutional Research Board (IRB) approved (Appendix C) the research study as meeting the required practices for dealing with human subjects such as obtaining consent, disclosing risks and benefits, and using clear language (U.S. Department of Health and Human Services [USDHHS], 2016). The SUNY Oswego Institutional Research Board (IRB) also approved (Appendix D) conducting the research study with SUNY Oswego students.

SUNY Oswego provided a data-use agreement (Appendix E) to conduct the research study. A technical expert reviewed the electronic version of the survey to ensure the format was adaptable to various platforms and mobile technologies. Implementation logistics, identified by Dillman et al. (2014), as key elements to improve response rate were also reviewed with the technical expert. The electronic link to the web-based survey
was sent to the participants’ official campus email. The email included an introduction and consent letter (Appendix F) describing the purpose of the research project and confirming that participation was voluntary (Dillman et al., 2014).

To maintain anonymity, personal identifiers were removed before conducting the data analysis (USDHHS, 2016). The survey was open for 18 days, which is reasonable for the population (Fowler, 2014). Reminders to participants are an accepted method to improve electronic survey response rates (Dillman et al., 2014); therefore, email reminders were sent to participants at 7 days, 12 days, and 18 days. The data collection procedures included detailed processes for handling bounced emails, participant inquiries, and maintaining data security (Dillman et al., 2014). Prior to the data analysis, a process for data cleaning and handling analytic survey issues, such as survey and item non-responses, was established (Fowler, 2014).

Analysis of the collected data was conducted using IBM Statistical Package for the Social Sciences (SPSS) Version 23.0. The four hypotheses were analyzed with descriptive statistics, which were used to summarize and describe the data. Additional analysis was conducted using inferential statistics, which allow for generalizations to be made for a population based on a sample. The independent variable was program type (classroom or online), and the dependent variable was the measurement of the student expectations for each leadership skill.

The purpose of the $t$ test is to determine if the difference between two samples was caused by chance or by a true difference in the sample’s population (Creswell, 2014). This determination or probability is made by creating and testing a hypothesis that states no difference exists between the two groups (Shavelson, 1996). The $t$-test design is an
independent sample means test with criterion group design to analyze the correlation or relationship between two groups on a specified measure (Shavelson, 1996). The two criterion groups, classroom and online, were based on one independent variable, which was the MBA program type. The specified measures, or dependent variables, were the values the respondents placed on their expectations for the 18 leadership skills to be developed in an MBA program.

Prior to conducting the data analysis, the 18 leadership skills expectations were consolidated into four competency areas of behavior, knowledge, skill, and workstyle, as identified in Dierdorff and Rubin’s (2006) research study of managerial competencies. The GMAC used Dierdorff and Rubin’s (2006) study, which analyzed data from the U.S. Department of Labor’s O*NET database, as the foundational research for creating the 18 leadership skills expectations in the research survey. GMAC used the leadership skills in question to MBA graduates in its annual alumni survey (GMAC, 2016b).

Each of the 18 leadership skills expectations in the research survey was assigned to one of four competency areas as identified by Dierdorff and Rubin (2006). The four competency areas were labeled behavior, knowledge, skill, and workstyle. A composite mean score was calculated for each of the four competency areas using the questions assigned to each group, and they are displayed in Table 3.1. The composite mean score for each competency area was used for the t-test analysis.
Table 3.1

Leadership Skill Expectation Questions Assigned to Competency Area

<table>
<thead>
<tr>
<th>Leadership Skill Expectation Questions</th>
<th>Competency Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 5, 6</td>
<td>Behavior</td>
</tr>
<tr>
<td>7, 8, 9, 10</td>
<td>Knowledge</td>
</tr>
<tr>
<td>11, 12, 13, 14</td>
<td>Skill</td>
</tr>
<tr>
<td>15, 16, 17, 18</td>
<td>Workstyle</td>
</tr>
</tbody>
</table>

For this study, the two-tailed $t$ test was used because the direction of the relationship was not known. In addition, the standard two-sample formula was adjusted to reflect sample sizes that were not equal. The effect size, which is the level of influence that the independent variable (MBA program type) had on the dependent variables (expectation levels for leadership skills development) was calculated using Cohen’s $d$, the standardized difference between the two means. The proportion of variance accounted for between the two samples was determined by calculating the squared correlation coefficient ($r^2$) (Shavelson, 1996). The $t$ tests and effect size calculations determined the significance level of the relationship between groups and were calculated using IBM SPSS.

Summary

The quantitative non-experimental study examined MBA student expectations for an MBA Management program. Descriptive statistics were used to investigate career-related expectations of MBA online and MBA classroom students. An independent sample $t$ test was conducted to analyze whether there were differences in expectations between MBA online students and MBA classroom students to develop leadership skills in an MBA program. The data was collected from a web-based survey administered in
April 2017. The research subjects for the study were 149 students enrolled during the spring 2017 semester in Oswego’s MBA Management program that was delivered in both the classroom and online format.
Chapter 4: Results

Research Questions

The purpose of this study was to examine if there were differences in student expectations for leadership skills development in an MBA program between MBA online and MBA classroom students. Little or no research exists relative to understanding the differences in expectations for leadership skills development between the online and classroom format in MBA programs.

The quantitative analysis was based on results from a web-based survey distributed to students enrolled in an MBA management program at an Upstate New York public institution during the spring 2017 semester. This chapter reviews the research participant demographics and reports the results. The hypotheses for this study were:

H1: There is a statistically significant difference in expectations for leadership development, related to developing leadership behaviors, between MBA online students and MBA classroom students.

H2: There is a statistically significant difference in expectations for leadership development, related to attaining leadership knowledge, between MBA online students and MBA classroom students.

H3: There is a statistically significant difference in expectations for leadership development, related to developing leadership skills, between MBA online students and MBA classroom students.
H4: There is a statistically significant difference in expectations for leadership development, related to developing work styles, between MBA online students and MBA classroom students.

Data Analysis and Findings

A quantitative, non-experimental research design using a web-based survey was used to test the hypotheses. The research survey included six demographic questions and 45 questions, in two sections, relating to expectations for leadership skills development in an MBA program. The survey participants were asked to measure their levels of expectation for each of the questions on a 5-point Likert scale. The scale ranged from 5 for very high expectation to 1 for very low expectation and 0 for no expectation.

Demographics. A link to the electronic survey, via Vivoci software, was distributed in an email to 149 MBA students enrolled in the MBA management program during the spring 2017 semester at Oswego. The survey was distributed to 104 online students and 45 classroom students. The survey was open for 18 days from April 2017 to May 2017. Survey response data was collected from 78 survey respondents for a response rate of 52.3%. An analysis of the responses was conducted, and two responses had missing data and they were removed from the study. There were 76 usable survey responses \( n = 76 \) of which 47 were online students and 29 were classroom students.

The demographic characteristics of the respondents based on the survey responses are presented using descriptive statistics calculated using the SPSS software. The demographic questions for each program type included gender, age, and employment status at the time of the survey and at the time of application to the program, program
type preference, and years of leadership experience. Table 4.1 displays a summary of the survey responses by program type.

Table 4.1

Survey Responses by Program Type

<table>
<thead>
<tr>
<th>Responses</th>
<th>Online</th>
<th>Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 76</td>
<td>47</td>
<td>29</td>
</tr>
<tr>
<td>% of total</td>
<td>61.8%</td>
<td>38.2%</td>
</tr>
</tbody>
</table>

The survey response rate of 61.8% for the online group was proportionately lower than the percentage of students enrolled overall in the online MBA management program, which was 70% for spring 2017 semester. The survey response rate of 38.1% for the classroom group was proportionately higher than the percentage of students enrolled in the classroom MBA management program, which was 30% for the spring 2017 semester. The majority of respondents in both the online and classroom group, 85.1% and 86.2%, respectively, responded that the type of program the respondents were enrolled in was their preferred program type.

Gender frequencies of the respondents by program type are summarized in Table 4.2. The total male response to the survey was 60.5%, and it was slightly lower than the male enrollment in the program which was 62%. The total female response to the survey was 38.2% and reflected the female enrollment of 39% in the program. For the online group, the female response rate of 40.4% reflected a higher percentage than the female enrollment rate in the online program which was 39%.
Table 4.2

Gender Frequencies by Program Type

<table>
<thead>
<tr>
<th>Respondents (n = 76)</th>
<th>Online</th>
<th>Classroom</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>27</td>
<td>19</td>
<td>46</td>
<td>60.5%</td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>10</td>
<td>29</td>
<td>38.2%</td>
</tr>
<tr>
<td>Prefer Not to Answer</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

The frequency distribution of the age groups of respondents is summarized in Table 4.3. The most prevalent age group for the research study was the 24- to 29-year-old age group, representing 36.8% of total respondents, followed by the 30- to 35-year-old group at 30.3%. The two age groups represented 68.4% of the survey participants. Overall, 72.4% of the respondents were 35-years old and younger. A comparison of age groups by program type indicates a higher age demographic for the online group than the classroom group. The online group had 61.2% of respondents at 30 years and older, and the classroom group had 57.6% of respondents at 30 years and older. In the 48- to 53-year-old age group, the online group had a significantly higher percentage (9.2%) of respondents than the classroom group (1.3%).

Table 4.3

Age Groups by Program Type

<table>
<thead>
<tr>
<th>Age Range – Years (n = 76)</th>
<th>Online</th>
<th>Classroom</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 23</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3.9%</td>
</tr>
<tr>
<td>24 to 29</td>
<td>18</td>
<td>10</td>
<td>28</td>
<td>36.8%</td>
</tr>
<tr>
<td>30 to 35</td>
<td>16</td>
<td>8</td>
<td>24</td>
<td>31.6%</td>
</tr>
<tr>
<td>36 to 41</td>
<td>5</td>
<td>4</td>
<td>9</td>
<td>11.8%</td>
</tr>
<tr>
<td>42 to 47</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5.3%</td>
</tr>
<tr>
<td>48 to 53</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>10.5%</td>
</tr>
<tr>
<td>54 and older</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2.6%</td>
</tr>
</tbody>
</table>
The frequency distribution of responses regarding employment status at the time of the survey is displayed in Table 4.4. The majority of respondents (85.5%) were employed full time at the time of the survey. For the online group, nearly all (97.9%) respondents were employed full time. Table 4.5 summarizes the frequency distributions of responses regarding how many years of experience the participants had in positions with leadership responsibilities. Although 78.2% of all respondents reported some leadership experience, the online group reported significantly more (45.8%) leadership experience in the 1 to 5-year category than the classroom group (30%).

Table 4.4

*Employment Status by Program Type*

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Online</th>
<th>Classroom</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>47</td>
<td>18</td>
<td>65</td>
<td>85.5%</td>
</tr>
<tr>
<td>Part Time</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>3.9%</td>
</tr>
<tr>
<td>Not Employed</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

Table 4.5

*Leadership Experience by Program Type*

<table>
<thead>
<tr>
<th>Leadership Experience</th>
<th>Online</th>
<th>Classroom</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>9</td>
<td>8</td>
<td>17</td>
<td>21.8%</td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>17</td>
<td>13</td>
<td>30</td>
<td>38.5%</td>
</tr>
<tr>
<td>1 to 5 years</td>
<td>22</td>
<td>9</td>
<td>31</td>
<td>39.7%</td>
</tr>
</tbody>
</table>

The survey participants were asked to use a 5-point Likert scale to rate their level of expectation for developing general leadership skills in an MBA program. The survey question preceded the survey questions detailing specific leadership skills. The results in
Table 4.6 show that the MBA classroom students had a higher expectation for general leadership development in an MBA program than the MBA online students with a mean of difference of .46.

Table 4.6

*General Leadership Expectations by Program Type*

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Online (n = 47)</th>
<th>Classroom (n = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Develop Leadership Skills</td>
<td>3.57 (SD .97)</td>
<td>4.03 (SD .86)</td>
</tr>
</tbody>
</table>

The survey participants were also asked to use a 5-point Likert scale to rate a level of 18 leadership skills to be developed in the MBA program. Descriptive statistics were calculated for each of the 18 leadership skills expectations. The data is summarized in Table 4.7, with the means and standard deviations of the leadership skills expectations listed from the highest to the lowest mean.

To test the four hypotheses using comparison analysis, the data was evaluated for meeting the requirements for an independent samples *t* test. The dependent variables (leadership skills) were measured at a continuous level; there was one independent variable (program type), and each group, online and classroom, were independent of each other as defined by program code. The survey questions related to the 18 leadership skills expectations that were assigned to competency areas based on Dierdorff and Rubin’s (2006) research, which is discussed in Chapter 3. The leadership skills expectation questions were grouped into four competency areas to create the dependent variables of behavior, knowledge, skills, and workstyle (Table 4.8).
Table 4.7

*Leadership Skill Expectation Means from the Highest the Lowest Mean*

<table>
<thead>
<tr>
<th>Leadership Skills Expectations</th>
<th>Mean (n = 76)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>B5 Managing strategy and innovation</td>
<td>4.24</td>
<td>0.73</td>
</tr>
<tr>
<td>B9 Knowledge of general business functions</td>
<td>4.22</td>
<td>0.74</td>
</tr>
<tr>
<td>B3 Managing decision-making processes</td>
<td>4.17</td>
<td>0.76</td>
</tr>
<tr>
<td>B13 Strategic and system skills</td>
<td>4.05</td>
<td>0.95</td>
</tr>
<tr>
<td>B4 Managing administrative activities</td>
<td>3.93</td>
<td>0.82</td>
</tr>
<tr>
<td>B1 Managing human capital</td>
<td>3.83</td>
<td>1.01</td>
</tr>
<tr>
<td>B6 Managing task environment</td>
<td>3.76</td>
<td>0.88</td>
</tr>
<tr>
<td>B18 Generative thinking</td>
<td>3.75</td>
<td>0.97</td>
</tr>
<tr>
<td>B15 Learning, motivation, and leadership</td>
<td>3.67</td>
<td>1.06</td>
</tr>
<tr>
<td>B11 Interpersonal skills</td>
<td>3.53</td>
<td>1.13</td>
</tr>
<tr>
<td>B12 Operations skills</td>
<td>3.47</td>
<td>1.13</td>
</tr>
<tr>
<td>B8 Knowledge of human behavior and society</td>
<td>3.45</td>
<td>1.19</td>
</tr>
<tr>
<td>B17 Conscientiousness</td>
<td>3.25</td>
<td>1.26</td>
</tr>
<tr>
<td>B7 Knowledge of technology</td>
<td>3.13</td>
<td>1.26</td>
</tr>
<tr>
<td>B16 Interpersonal orientation</td>
<td>3.11</td>
<td>1.27</td>
</tr>
<tr>
<td>B2 Managing tools and technology</td>
<td>3.04</td>
<td>1.14</td>
</tr>
<tr>
<td>B10 Knowledge of media</td>
<td>2.93</td>
<td>1.39</td>
</tr>
<tr>
<td>B14 Foundation skills</td>
<td>2.36</td>
<td>1.59</td>
</tr>
</tbody>
</table>

Table 4.8

*Leadership Skill Expectation Questions Assigned to Competency Area*

<table>
<thead>
<tr>
<th>Leadership Skill Expectation Questions</th>
<th>Competency Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 5, 6</td>
<td>Behavior</td>
</tr>
<tr>
<td>7, 8, 9, 10</td>
<td>Knowledge</td>
</tr>
<tr>
<td>11, 12, 13, 14</td>
<td>Skill</td>
</tr>
<tr>
<td>15, 16, 17, 18</td>
<td>Workstyle</td>
</tr>
</tbody>
</table>

A composite mean was calculated for each competency area creating four dependent variables used to test the hypothesis. To make inferences from the sample to
the population, the sample means must be normally distributed. The normality of data for the four competency variables was evaluated using the Shapiro-Wilk test (Table 4.9).

Two of the four competency variables, skill and work style, displayed non-normal distributions ($p < .05$) at .01 and .03, respectively.

Table 4.9

*Initial Shapiro-Wilk Test for Competency Variables*

<table>
<thead>
<tr>
<th>Competency Variable</th>
<th>Shapiro-Wilk Test Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>0.97</td>
<td>76</td>
<td>0.06</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.98</td>
<td>76</td>
<td>0.17</td>
</tr>
<tr>
<td>Skill</td>
<td>0.96</td>
<td>76</td>
<td>0.01</td>
</tr>
<tr>
<td>Work Style</td>
<td>0.96</td>
<td>76</td>
<td>0.03</td>
</tr>
</tbody>
</table>

To determine if normality could be achieved, box plots and the estimated 5% trimmed mean values were inspected for the four competency variables. Based on inspection, two cases were identified as outliers (Case 5 and Case 46) that were impacting the competency variables skill and work style, and they were removed from the analysis. Removal of the two outliers resulted in a normal distribution ($p > .05$) for each program type as assessed by the Shapiro-Wilk’s test (Table 4.10) for the each of the four variables.

Table 4.10

*Shapiro-Wilk Results with Outliers Removed*

<table>
<thead>
<tr>
<th>Competency Variable</th>
<th>Shapiro-Wilk Test Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>0.98</td>
<td>74</td>
<td>0.37</td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.97</td>
<td>74</td>
<td>0.10</td>
</tr>
<tr>
<td>Skill</td>
<td>0.98</td>
<td>74</td>
<td>0.23</td>
</tr>
<tr>
<td>Work Style</td>
<td>0.97</td>
<td>74</td>
<td>0.06</td>
</tr>
</tbody>
</table>
**H1 data analysis.** The first hypothesis tested for a statistically significant difference in expectations for leadership development, related to the behavior competency, between MBA online students and MBA classroom students. The survey questions and descriptions for the behavior competency area were:

Q1: Managing human capital (e.g., coordinating the work of others; guiding, directing, and motivating subordinates; coaching and developing others; organizing, planning, and prioritizing work).

Q2: Managing tools and technology (e.g., controlling machines and processes; inspecting equipment, structures, or material; drafting, laying out, and specifying technical devices and equipment).

Q3: Managing decision making processes (e.g., obtaining and processing information; making decisions; solving problems; judging the qualities of things, services, or people; identifying objects, actions, or events).

Q4: Managing administrative activities (e.g., creating and managing budgets, documenting and recording information, evaluating information to determine compliance, and performing general administrative activities).

Q5: Managing strategy and innovation (e.g., analyzing data or information, thinking creatively, developing objectives, and strategies).

Q6: Managing the task environment (e.g., communicating with persons outside the organization, establishing and maintaining interpersonal relationships, selling, or influencing others).

A composite mean was calculated by program type (Table 4.11) from the responses to six survey questions assigned to the behavior competency area (dependent
variable). The results indicate that the MBA classroom students had a higher level of expectations for the behavior-related leadership skills than the MBA online students by a mean difference of .20.

Table 4.11

Behavior Competency Composite Means by Program Type

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Program Type</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>Online</td>
<td>45</td>
<td>3.74</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>Classroom</td>
<td>29</td>
<td>3.94</td>
<td>0.68</td>
</tr>
</tbody>
</table>

An independent samples $t$ test was conducted to determine if the difference was statistically significant for the behavior competency between the classroom and online students. The results, summarized in Table 4.12, show no significant difference ($p > .05$) between the behavior-related leadership skills expectations of the classroom and online students for an MBA program. The result supports rejecting hypothesis H1.

Table 4.12

Independent Samples $t$-Test Results for Behavior Competency

<table>
<thead>
<tr>
<th>Competency</th>
<th>Levene’s Test for Equality of Variances</th>
<th>$t$-Test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$F$</td>
<td>Sig.</td>
</tr>
<tr>
<td>Behavior</td>
<td>1.87</td>
<td>0.17</td>
</tr>
</tbody>
</table>

**H2 data analysis.** The second hypothesis tested for a significant difference in expectations for leadership development, related to attaining knowledge, between MBA
online students and MBA classroom students. The survey questions and the descriptions for the knowledge competency area were:

Q7: Knowledge of technology, product design, and production (e.g., production and processing, engineering and technology, product design).

Q8: Knowledge of human behavior and society (e.g., psychology, education and training, law and government).

Q9: Knowledge of general business functions (e.g., administration and management, economics and accounting, sales and marketing, customer service and personal service, personnel and human resources).

Q10: Knowledge of media communications and delivery (e.g., media communications, computer and electronics, English language).

A composite mean was calculated by program type (Table 4.13) from the responses to the four survey questions assigned to the knowledge competency area (dependent variable). The results indicate that the MBA classroom students had a higher level of expectations for the knowledge related to leadership skills than the MBA online students by a mean difference of .21.

Table 4.13

Knowledge Competency Composite Means by Program Type

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Program Type</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Online</td>
<td>45</td>
<td>3.36</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Classroom</td>
<td>29</td>
<td>3.57</td>
<td>0.93</td>
</tr>
</tbody>
</table>

An independent samples t test was conducted to determine if the difference was statistically significant for the knowledge competency between the classroom and online
students. The results, summarized in Table 4.14, show no significant difference ($p > .05$) between the knowledge-related leadership skills expectations of the classroom and the online students for an MBA program. The result supports rejecting hypothesis H2.

Table 4.14

*Independent Samples t-Test Results for Knowledge Competency*

<table>
<thead>
<tr>
<th>Competency</th>
<th>$F$</th>
<th>Sig.</th>
<th>$t$</th>
<th>$df$</th>
<th>Sig. (2-tailed)</th>
<th>Mean Diff</th>
<th>Std. Error Diff</th>
<th>95% Confidence Interval Lower</th>
<th>95% Confidence Interval Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>.93</td>
<td>0.33</td>
<td>−1.02</td>
<td>72</td>
<td>0.31</td>
<td>−0.21</td>
<td>0.20</td>
<td>−0.61</td>
<td>0.19</td>
</tr>
</tbody>
</table>

**H3 data analysis.** The third hypothesis tested for a significant difference in expectations for leadership development, related to developing leadership skills, between MBA online students and MBA classroom students. The survey questions and the descriptions for the skill competency area were:

Q11: Interpersonal skills (e.g., active listening, social perceptiveness, coordination, persuasion and negotiation, time management, management of personal resources).

Q12: Operations skills (e.g., quality control analysis, technology design, operation monitoring, troubleshooting).

Q13: Strategic and systems skills (e.g., complex problem solving, judgement and decision making, systems analysis and evaluation, management of financial resources, management of material resources).

Q14: Foundation skills (e.g., reading, comprehension, writing, mathematics, and science).
A composite mean was calculated by program type (Table 4.15) from the responses to the four survey questions assigned to the skills competency area (dependent variable). The results indicate the MBA classroom students had a higher level of expectations for the skills-related leadership skills than the MBA online students by a mean difference of .10

Table 4.15

*Skill Competency Composite Means by Program Type*

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Program Type</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td>Online</td>
<td>45</td>
<td>3.33</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td>Classroom</td>
<td>29</td>
<td>3.43</td>
<td>0.91</td>
</tr>
</tbody>
</table>

An independent samples *t* test was conducted to determine if the difference was statistically significant for the skills competency between the classroom and online students. The results, summarized in Table 4.16, show no statistical difference (*p > .05*) between the skill-related leadership skills expectations of the classroom and the online students for an MBA program. The result supports rejecting hypothesis H3.

Table 4.16

*Independent Samples T Test Results for Skill Competency*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-Test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>F</em></td>
<td>Sig.</td>
</tr>
<tr>
<td>Knowledge</td>
<td>.42</td>
<td>0.51</td>
</tr>
</tbody>
</table>

**H4 data analysis.** The fourth hypothesis tested for a statistically significant difference in expectations for leadership development, related to developing work styles,
between MBA online students and MBA classroom students. The survey questions and descriptions for work style competency area were:

Q15: Learning, motivation, and leadership (e.g., achievement, effort, persistence, initiative, adaptability, flexibility).

Q16: Interpersonal orientation (e.g., cooperation, concern for others, social orientation, self-control).

Q17: Conscientiousness (e.g., dependability, attention to detail, integrity).

Q18: Generative thinking (e.g., innovation, analytical thinking, independence).

A composite mean was calculated by program type (Table 4.17) from the responses to the four survey questions assigned to the work style competency area (dependent variable). The results indicate the MBA classroom students had a higher level of expectations for the workstyle-related leadership skills than the MBA online students by a mean difference of .28.

Table 4.17

Work Style Competency Composite Means by Program Type

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Program Type</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Style</td>
<td>Online</td>
<td>45</td>
<td>3.33</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>Classroom</td>
<td>29</td>
<td>3.61</td>
<td>0.89</td>
</tr>
</tbody>
</table>

An independent samples t test was conducted to determine if the difference was statistically significant for the skills competency between the classroom and online students. The results, summarized in Table 4.18, show no significant difference (p > .05) between the skill-related leadership skills expectations of the classroom and the online students for an MBA program. The result supports rejecting hypothesis H4.
Table 4.18

*Independent Samples T-Test Results for Skill Competency*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-Test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Behavior</td>
<td>.01</td>
<td>0.89</td>
</tr>
</tbody>
</table>

The sample size required for this study to allow for generalizations to be made about the population at a 95% confidence level was not achieved. The study required 40 classroom MBA respondents and 82 online MBA respondents for a 95% confidence level. However, the study had 29 classroom MBA respondents and 47 online MBA respondents. The results of the data analysis support the rejection of the four hypotheses stating that there is a statistical significant difference between MBA online students and MBA classroom students in their expectations for leadership skills development in an MBA program.

**Summary of Results**

An electronic survey was distributed to 149 MBA management students at SUNY Oswego at the end of the spring 2017 semester, to collect data to examine expectations of the MBA online and MBA classroom students for leadership skills development in the MBA program. The survey included six demographic questions and 45 expectation questions related to leadership skills development. There were 76 responses (n = 76) usable for the research analysis.

The survey data examining MBA student expectations for developing leadership skills in an MBA program was analyzed using descriptive statistics and the results of an
independent sample $t$ test. For the MBA online and MBA classroom student respondents, the expectation to develop skills for managing strategy and innovation (B5) had the highest mean (4.24) of the 18 leadership skills. The student expectation to develop foundation skills (B14) in the MBA program had the lowest mean at 2.36.

Prior to conducting the independent samples $t$ test, the 18 leadership skill survey questions were assigned to four competency areas, which were identified in Dierdorff and Rubin’s (2006) research study. Composite means were calculated for each competency group, creating four dependent variables labeled behavior, knowledge, skill, and work style.

The results from the independent samples $t$ test comparing online and classroom MBA students’ expectations for developing leadership skills in the MBA program, showed no significant difference ($p > .05$) in each of the four competency areas. Therefore, the four hypotheses were rejected. Chapter 5 presents the implications of the data results, the limitations, and the recommendations for future research and practice.
Chapter 5: Discussion

Introduction

The purpose of this study was to examine the expectations of MBA online students and MBA classroom students for leadership skills development in an MBA program. The study analyzed if there were differences in the expectations for leadership skills development between the online and classroom MBA students. As online programs mature into a strategic component of higher education’s academic offerings, understanding and meeting student expectations for online programs is an important element in higher education’s ability to compete for students successfully in a challenging environment.

Appleton-Knapp and Krentler’s (2006) expectation research in higher education, based on Oliver’s (1980) expectation confirmation theory, suggests that expectations about the performance of a product or service are a more accurate indicator of the performance of a product or service than the actual performance. Appleton-Knapp and Krentler (2006) concluded that student expectations were an undervalued component of organizational performance. Higher education is contending with the growth of online graduate programs in an environment of reduced funding, growing institutional expenses—some of which are related to the online delivery format—and increased competition. Research to better understand and meet student expectations supports using resources for improved organizational, student, and stakeholder outcomes.
The growth in online enrollments is prominent in graduate business degree programs that comprise a largest percentage (25%) of the total graduate degrees conferred nationally in 2014. MBA enrollments for online programs grew by 9% between 2011 and 2014 (NCES, 2014). According to GMAC (2016a) 952 institutions offered MBA programs. The flexibility and convenience of online MBA programs is appealing to working professionals who desire career advancement while balancing work and personal commitments.

Despite the growth of MBA online programs, the research studies to understand student expectations for graduate business programs have been focused on the technical aspect of online course delivery or on data collected from classroom environments (Arbaugh & Duray, 2002; Redpath, 2012). Research studies of expectations for leadership development in MBA programs are very limited and they concentrate on classroom programs.

The GMAC (2016c) survey of corporate recruiters and employers, and the research studies by Bal et al. (2014), Klimoski and Amos (2012), and Rubin and Dierdorff (2009, 2011) support the premise that business school stakeholders have expectations for MBA programs to prepare students for leadership responsibilities. GMAC’s (2016a) annual survey of prospective MBA students summarizes student expectations for MBA programs, which include leadership-related expectations, according to the delivery format of the program. The data shows that students looking at professional MBA programs (which includes online MBAs) described leadership-related expectations differently from other types of programs. However, little research exists to support further examination of the differences between online student and classroom
student expectations for leadership development, creating a gap in the research literature and supporting the need for this study.

The hypotheses for this study researched student expectations for leadership skills development, which is identified as an expectation for graduate business programs. The study’s leadership skills reflected four leadership competency groups derived from Dierdorff and Rubin’s (2006) comprehensive research work, discussed in Chapter 2, for graduate business programs.

H1: There is a statistically significant difference in expectations for leadership development, related to developing leadership behaviors, between MBA online students and MBA classroom students.

H2: There is a statistically significant difference in expectations for leadership development, related to attaining leadership knowledge, between MBA online students and MBA classroom students.

H3: There is a statistically significant difference in expectations for leadership development, related to developing leadership skills, between MBA online students and MBA classroom students.

H4: There is a statistically significant difference in expectations for leadership development, related to developing work styles, between MBA online students and MBA classroom students.

The research hypotheses were analyzed quantitatively with data collected from 76 respondents to a web-based survey. The research survey was distributed to MBA management students enrolled during the spring 2017 semester at SUNY Oswego, a
public institution located in Upstate New York. Below is a discussion of the findings, recommendations for further research and practice, and research conclusions.

**Implications of Findings**

The study examined MBA student expectations for leadership skills development in an MBA program. The details of these analyses were presented in Chapter 4 and key findings are discussed in this chapter.

**Demographics.** The study demographics found that 97% of the online students were employed full time. The MBA online students had a higher percentage of respondents at 30 years and older (33%) than the classroom students (27%) and a higher percentage of respondents with 1-5 years of leadership experience (45%) than the MBA classroom respondents (30%). Frazier et al. (2012) found similar results in a study of online business graduate students who were older, working professionals returning to school for career advancement.

Cao and Sakchutchawan’s (2011) empirical study concluded that an older student, average age at 35.6-years old, was enrolling in online MBA programs at a higher rate than classroom programs. These results are aligned with the findings in research studies by Bocchi et al. (2004), Braun (2008), and Rydzewski et al. (2010) who reached similar conclusions. Although research confirms there is an overall expectation by students and stakeholders for MBA programs to develop leadership skills, faculty and course designers must be alert to how the diversity in age and experience may impact the students’ expectations for developing specific skills in leadership competency areas. An older, more-experienced student may have expectations for leadership development through coaching and mentoring activities, while research indicates that a less-experienced
student may have expectations for improving operational knowledge and skills. Business school resources should be directed to enhance course design features that provide access to multiple skills development opportunities within the online courses.

**Implications for online graduate business education.** Marks, Sibley, and Arbaugh’s (2005) conclusions from their research of MBA students may have been an early indication of changing student expectations for MBA online and classroom programs that the results of this research study suggest. The researchers posited that, ultimately, the competitive advantages of online flexibility and convenience would be secondary to student expectations for learning effectiveness.

Given the prevalence of research studies focused on leadership skills development in classroom environments, the expectations of MBA classroom students for general leadership skills development found in this study align with the Klimoski and Amos (2012) findings that program administrators were focused on leadership development components in classroom MBA programs. Redpath’s (2012) comparative review of MBA programs describes the classroom focus as a bias by business schools toward historical classroom pedagogies. The expectation of MBA classroom students for leadership skills development in an MBA program may draw attention to the contribution of face-to-face interaction in the classroom through traditional techniques such as lectures, discussion, presentations, team activities, networking, and experiential projects.

While a preponderance of research studies for online education focus on the convenience and flexibility benefits desired by working professionals, the social justice benefits of online education are often overlooked. The online delivery format for education provides accessibility and cost savings to students with diverse socioeconomic
backgrounds who may be unable to participate in a residential campus or commuter classroom experience. This study’s findings, which show no difference in expectations for leadership skills development between online and classroom programs, is a reminder to business school decision makers that resources should be directed to both formats to deliver equivalent leadership skills development opportunities.

The results show that the skills related to the behavior competency area for human capital, decision making, and innovation had the highest student expectations, and they should have special emphasis in the online design. Course features that develop interpersonal skills in this competency require the faculty’s innovative use of technology in course design to replicate an interactive experience equivalent to the classroom environment.

Although this study focused on the expectations for leadership skills development within the confines of online and classroom course environments, there is robust debate among scholars regarding the role of learning activities outside of the course environment and the role of personal characteristics and traits contributing to leadership skills development. For example, in 1998, Goleman asked, “What makes a leader?” in his pivotal research of emotional intelligence. Goleman (1998) cited skills relating to self-awareness, self-regulation, motivation, and empathy as critical competencies for leadership development.

Goleman’s (1998) skills, often referred to as soft skills, are generally found within the four competency groups developed by Dierdorff and Rubin (2006) and particularly within the behavior competency. Research studies discuss activities, such as individual coaching, guided volunteerism, and intense team-shared activities, as methods to meet
expectations for developing leadership skills related to the behavior competency. In the research study of the six highest leadership skills expected to be developed in an MBA program, respondents identified four leadership skills that were in the behavior competency area. However, while students and stakeholders have high expectations for behavior or soft skills leadership development, Dierdorff and Rubin (2006) and Dierdorff et al. (2009) found that the core curriculums of traditional MBA programs were focused on skill development related to knowledge competency, which are considered hard skills.

Kibelloh and Bao’s (2013) study of expectations with professional working women in China who were taking online MBA programs, described the dilemma faced by the MBA online students. Although Kibelloh and Bao (2013) found that the flexibility and convenience of the online format was a predominant expectation theme, the respondents also had expectations for networking and highly interpersonal skills, and they lamented that the lack of traditional classroom MBA networking activities in online MBA programs could ultimately hurt their careers.

Benjamin and Reilly’s (2011) research of recent MBA graduates early in their careers discussed the value of behavior-related competencies to new MBA graduates. Although the study offered criticisms of curriculums, the researchers concluded that it would be valuable to research face-to-face methodologies for the online format to develop the leadership competencies.

This current study’s findings alert administrators to the expectations of MBA online students for behavioral leadership skills development in an MBA program, skills typically associated with high levels of interaction and reflection. Arbaugh, Dearmond, and Rau (2013) and Jenkins (2016) discussed the research deficit in studying MBA
online program delivery by cautioning program administrators that a lack of understanding of the design and delivery of MBA online programs may ultimately impact student and organizational outcomes. Their study results indicate that the expectations of MBA classroom students and MBA online students to develop leadership skills are not significantly different, and that developing leadership skills related to human capital, such as coaching and guiding, are related to creative, strategic-systems thinking and are equally expected by MBA students, regardless of the MBA program delivery format.

Limitations

There were limitations to this study that may impact interpretation of the findings. The sample was from one MBA program at a single institution, which may limit generalizations to other MBA programs. Another limitation was that although the students in the MBA management program used for this research study were classified into distinct program groups for online or classroom delivery, students had the option to take an individual class in either format so that the students may not have been enrolled in 100% of the online or classroom sections. This may have limited the ability to generalize the findings to purely online or purely classroom programs.

The expectation variables used in this study were based on the contents from two GMAC survey questions that were intended for distribution at times different than the distribution timing used for this research study. The survey questions in the career-related expectation section of this study were question components of a survey distributed by GMAC (2016a) to prospective MBA students prior to their application to an MBA program. The survey questions in the leadership skills expectation section of the research
study were question components excerpted from a survey distributed by GMAC (2016b) to students who had completed and graduated from MBA programs.

**Recommendations**

Based on the results of this research study, this section presents recommendations for further research and practice.

**Recommendations for further research.** The growth of MBA enrollments, particularly in online programs, provides opportunities to obtain larger, more-diverse samples for assessing expectations for leadership skills development in online programs. Dierdorff and Rubin’s (2006) foundational research of 18 leadership skills, grouped into four competency areas, provides a structural framework for additional research using multiple institutions and larger student samples from online and classroom MBA programs both domestically and internationally.

This research study asked MBA online and MBA classroom students to assess levels of expectation for leadership skills development during the MBA program experience. Future research may benefit from further integration of Oliver’s (1980) expectation theory with a longitudinal comparison study to assess levels of expectation for leadership skills development at the point of application and at program completion.

Further research may include studies to address differences in student expectations based on demographics and levels of work experience. Research could examine correlations between variables, such as gender, age, ethnicity, or work experience, and student expectations, for developing leadership skills in the four competency areas. Further research to understand how levels of work experience affect expectations for leadership skills development in an MBA program would provide
knowledge to support decisions regarding curriculum and instructional design resources for leadership skills development content online. Studying the expectations of a divergent group of MBA students ranging from experienced managers to novice leaders, using the Dierdorff and Rubin’s (2006) framework, may provide insight into online course design features that address the spectrum of student expectations for leadership skills development.

A program design feature gaining momentum in research studies is the use of the hybrid course design. Hybrid courses generally use a combination of asynchronous and live session components for course delivery. Further research on the impact of hybrid course design on meeting the expectations of students with diverse levels of leadership experience would provide valuable information for faculty and instructional designers who are interested in aligning content and structure to meet the expectations of online MBA students. Studies by Levy (2005), Jenkins (2016), and Varela et al. (2013) discuss MBA program activities that support developing leadership skills online, which could be used to frame future studies.

**Recommendations for practice.** Klimoski and Amos’s (2012) research discusses developing a leadership competency model for an MBA program. The results of this current research study support the development of an expectation model for leadership skills development in an MBA program. Assessing and acknowledging the different degrees of leadership skills and abilities each student brings into an MBA program provides opportunities for faculty and program directors to successfully manage and meet those expectations with course design features.
Jenkin’s (2016) study highlighted course design activities from classroom programs that were typically omitted or used less in online courses. The study found that the online version of class activities, such as debates, class polling, interactive presentations, collaborative projects, and problem-based learning, were never, rarely, or only occasionally used by faculty in online leadership courses. The same listing of instructional strategies also provided some insight into online activities to enhance classroom experiences for leadership development such as social networking, computer-based learning, media clips, reflective blogs, and shared instructor student discussion boards.

Program directors should consider a thorough evaluation of program and course designs to determine which elements are missing from online programs, and they should work with faculty and instructional designers to incorporate the classroom course design features in the online programs. Program administrators may also consider taking Redpath’s (2012) challenge to business schools to become more aggressive in applying new technologies to online learning to innovate activities, such as team work or networking, which are traditionally associated with MBA classroom programs.

Nearly 20 years ago, Cini (1998) posited that the online format in business education would be more conducive to developing leadership skills than the classroom format. Although there was no follow-up research to that original premise, Cini (1998) may have been a prognosticator in stating that the skills to be a successful leader in a technologically connected, virtual, global environment of today’s modern businesses should be taught in an online format.
Program directors, faculty, and course designers should consider accelerating efforts to integrate hybrid course design into leadership-development courses. Incorporating live sessions with asynchronous online sessions provides an opportunity to use coaching, mentoring, and consulting techniques in MBA online programs to meet the expectations for developing the behavior competencies for leadership development. Conversely, integrating the technological advances featured in MBA online course structure, such as materials accessibility and virtual interaction, provides an opportunity for faculty to incorporate behavior skills development using online features in the classroom.

As the GMAC (2016a, 2016c) surveys revealed, students and employers expect MBA programs to develop leadership skills. To successfully compete for students, business deans, program directors, instructional designers, and faculty must design course structures to meet diverse student expectations for developing leadership skills in both the online and classroom formats.

**Conclusion**

The results of this quantitative study, conducted with MBA students enrolled at SUNY Oswego, adds to the body of knowledge for understanding MBA student expectations for leadership skills development, especially in the growing online program area. Chapter 1 discussed how business school leaders and program administrators are faced with meeting student expectations for online programs in an increasingly competitive environment while constrained by limited budget resources. Higher education is also faced with meeting evolving student consumer expectations that contribute to the challenges of delivering online programs.
Chapter 2 reviewed the research literature to support an understanding of student expectations for online programs and for developing leadership skills in MBA programs. The literature review revealed that research studies of student expectations were predominantly focused on the technological and demographic aspects of online programs. The review also found that research studies examining expectations for leadership skills development in MBA programs were limited and concentrated on data obtained from classroom environments.

Included in the review of leadership skills development were research studies examining skill classifications for leadership development. The Dierdorff and Rubin (2006) research study identifying 18 leadership skills, grouped into four competency areas, was selected as a comprehensive framework for this research study. Based on the studies examined in Chapter 2, a research gap was identified for studying online and classroom MBA student expectations for leadership skills development thereby creating the need for this study.

A research design and methodology to facilitate the comparative analysis of expectations between the MBA online and classroom students was presented in Chapter 3. The quantitative study used a web-based survey with a Likert scale distributed to online and classroom MBA students at SUNY Oswego during the spring 2017 semester. Analysis of the 76 responses was conducted using descriptive and inferential statistics. Four hypotheses, utilizing the four leadership skill competency groups identified by Dierdorff and Rubin (2006), were tested using an independent samples t test.
Chapter 4 presented the results of the research study, which investigated differences in MBA student expectations for leadership skills development. The four hypotheses included expectations for developing leadership skills in behavior, knowledge, skill, and work style competencies. For each of the four hypotheses, the results showed no significant difference ($p > .05$) between MBA online and MBA classroom students in expectations for leadership skills development in an MBA program. Each of the four hypotheses were rejected.

The implications of the research study and recommendations for future research were discussed in Chapter 5. To compete effectively for the consumer-oriented student, decision makers in schools of business are charged with aligning instructional design resources, faculty, and technology to deliver MBA programs to meet the expectations of an increasingly diverse population of students. Research indicates that understanding and meeting student expectations is an undervalued component that contributes to a school’s overall success in program delivery.

With the growing enrollments in online MBA programs and increased competition for the online student, this study’s results are an alert to business school leaders and program administrators that MBA online students expect that the online program design and content will support the development of leadership skills in the same fashion as would a classroom-based MBA program. Business school leaders may also consider this research finding a matter of social justice. Students diverse in socioeconomic status enrolling in online MBA programs often note their lack of resources to attend traditional classroom programs. The students cited the accessibility and cost savings from reduced travel that the online format provides as the determining
factor in pursuing the MBA degree. The necessity to enroll in the online format of an MBA program should also bring with it assurances that expectations for leadership skills development will be met at an equivalent level.

Recommendations for further research include studies with expanded samples and ones that are longitudinal in scope and research which studies of hybrid course designs can meet skills development expectations. Recommendations for practice include the development of an expectation model for student leadership skills development using demographics and work experience as variables. In concert with developing expectation levels in the model, program managers should consider evaluating online courses to assess to what degree classroom skills development components are found in online offerings.

In conclusion, the preponderance of research studies providing evidence that MBA online students have primary expectations for the flexibility and convenience of the online format may have lulled administrators into overlooking research of student expectations for leadership skills development in online programs, creating a bias toward classroom pedagogies. As the competitive advantage of technology and online programs diminishes, the results of this research study indicate that student expectations for equivalencies in leadership skills development between online and classroom MBA programs may be more prominent. To meet those expectations, business school decision makers must use institutional resources to deliver an MBA program that will develop leadership skills effectively, regardless of classroom or online program delivery.
References


Appendix A

Research Study Survey

Before starting the survey, please answer a few demographic questions:

1. Gender: Male____ Female____ Prefer not to answer ______

2. Age (in years):
   18-23 ___ 24-29 ___ 30-35 ___ 36-41 ___ 42-47 ___ 48-53 ___ 54 and older ______

3. Is Classroom (Is Online) format your preferred method of MBA program delivery? 
   yes_____ no_____

4. Are you employed? yes full time____ yes part time ____ not employed _____

5. Were you employed when admitted to the MBA program? yes___no___

6. How much experience have you had in positions with leadership responsibilities?
   None ___ Less than 1 year ____ 1 to 5 years ___ more than 5 years ______

This survey has two sections. Part A asks you to rate expectations for an MBA program. Part B asks you to rate expectations for leadership skill development in an MBA program

PART A:

Please think back to when you were applying to the MBA program. The following are a list of reasons or expectations some people may have for pursuing a graduate business education.

Please rate the level of expectation you had for each item on your decision to obtain an MBA. The scale is 1 to 5 with 0 equal to no expectation.

0 = No expectation
1 = Very low expectation
2 = Low expectation
3 = Moderate expectation
4 = High expectation
5 = Very high expectation
1. Develop my leadership skills
2. Develop my managerial skills
3. Develop my technical expertise
4. Develop my general business knowledge, skills, and abilities
5. Provide me with professional credentials or credibility
6. Improve my effectiveness on the job
7. Increase my salary potential
8. Allow me to remain marketable or competitive
9. Allow me to have greater freedom in job and career choices
10. Allow me to change career paths, including industry or job function
11. Improve my chances of receiving a promotion
12. Allow me to accelerate my career path
13. Increase my opportunities for international employment
14. Increase job opportunities available to me
15. Increase my entrepreneurial opportunities/manage my own business
16. Give me a sense of personal satisfaction and achievement.
17. Provide me with opportunities for challenging and interesting work

PART B:

Think back to when you started the MBA program when you read the following statements. For each statement, rate your level of expectation for the development of the described competency in the MBA program.

The rating scale is 1 to 5 and 0 equal to no expectation.

0 = No expectation
1 = Very low expectation
2 = Low expectation
3 = Moderate expectation
4 = High expectation
5 = Very high expectation

1. Managing human capital [e.g., coordinating the work of others, guiding, directing, and motivating subordinates; coaching and developing others; organizing, planning, and prioritizing work]
2. Managing tools and technology [e.g., controlling machines and processes; inspecting equipment, structures, or material; drafting, laying out, and specifying technical devices and equipment]
3. Managing decision-making processes [e.g., obtaining and processing information; making decisions and solving problems; judging the qualities of things, services, or people; identifying objects, actions, and events]
4. Managing administrative activities [e.g., creating and managing budgets; documenting and recording information; evaluating information to determine compliance; performing general administrative activities]
5. Managing strategy and innovation [e.g., analyzing data or information; thinking creatively; developing objectives and strategies]
6. Managing the task environment [e.g., communicating with persons outside organization; establishing and maintaining interpersonal relationships; selling or influencing others]
7. Knowledge of technology, product design, and production [e.g., production and processing; engineering and technology, product design]
8. Knowledge of human behavior and society [e.g., psychology; education and training; law and government]
9. Knowledge of general business functions [e.g., administration and management; economics and accounting; sales and marketing; customer and personal service; personnel and human resources]
10. Knowledge of media communications and delivery [e.g., media communication; computers and electronics; English language]
11. Interpersonal skills [e.g., active listening; social perceptiveness; coordination; persuasion and negotiation; time management; management of personnel resources]
12. Operations skills [e.g., quality control analysis; technology design; operation monitoring; troubleshooting]
13. Strategic and systems skills [e.g., complex problem solving; judgment & decision making; systems analysis and evaluation; management of financial resources; management of material resources]
14. Foundation skills [e.g., reading comprehension; writing; mathematics; science]
15. Learning, motivation, and leadership [e.g., achievement/effort; persistence; initiative; Adaptability/flexibility]
16. Interpersonal orientation [e.g., cooperation; concern for others; social orientation; self-control]
17. Conscientiousness [e.g., dependability; attention to detail; integrity]
18. Generative thinking [e.g., Innovation; Analytical thinking; Independence]
Appendix B

GMAC Approval to Use Question Content

2/28/2017 SUNY Oswego Laker Apps Mail - SurveyQuestions.docx

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Schoenfeld, Gregg <gschoenfeld@gmac.com> Fri, Feb 17, 2017 at 4:56 PM
To: "irene.scruton@oswego.edu" <irene.scruton@oswego.edu>

Dear Irene,

Attached is a document with the two survey questions we discussed. Wish you well on your dissertation.

If you have any other questions, feel free to contact me.

Best regards,

Gregg

Gregg Schoenfeld, Director, Management Education Research
Graduate Management Admission Council® (GMAC®)
+1 (703) 668-9815 | gschoenfeld@gmac.com

China | India | United Kingdom | USA gmac.com | mba.com

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Appendix C

St. John Fisher College IRB Approval

March 22, 2017

File No: 3706-031617-19

Irene Scruton
St. John Fisher College

Dear Ms. Scruton:

Thank you for submitting your research proposal to the Institutional Review Board.

I am pleased to inform you that the Board has approved your Expedited Review project, “A quantitative study to analyze differences in MBA student expectations for leadership skill development in MBA online and MBA classroom.”

Following federal guidelines, research related records should be maintained in a secure area for three years following the completion of the project at which time they may be destroyed. Please make the appropriate changes to your application reflecting the data maintenance time and send us the revised documents. You do not have to delay the initiation of your data collection for this task.

Should you have any questions about this process or your responsibilities, please contact me at irb@sjfc.edu.

Sincerely,

Eileen Lynd-Balta, Ph.D.
Chair, Institutional Review Board
ELB: jdr
OSWEGO
STATE UNIVERSITY OF NEW YORK

Human Subjects Expedited Review Form

DATE: 1/15/2017

TO: Ms. Irene Scruton

FROM: Dr. David Bozak, Chair, Human Subjects Committee

RE: MBA Student expectations for leadership skill development in class/online (20170115db1)

Your above titled research project has been received for expedited review and: X has been approved

Please follow these steps:

(1) You keep this top page ("Expedited Review Form") for your records.

(2) Prior to conducting the research, complete the attached "Acceptance of Review by Principle Investigator" and return it to:

Dr. David Bozak
Chair, Human Subjects Committee
414 Mahar Hall
State University of New York at Oswego
Oswego, NY 13126
david.bozak@oswego.edu

Thank you,

[Signature]

David Bozak
Appendix E

Data Use Agreement

This Data Use Agreement (“Agreement”), effective as of January 17, 2017 is entered into by and between Dr. Mehran Nojan, Director of the Office of institutional Research and Assessment and Irene Scruton, Director MBA Programs at SUNY Oswego. The purpose of this Agreement is to provide Data Recipient with access to the data described below for use in research in accord with the HIPAA and FERPA Regulations.

1. Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the “HIPAA Regulations” codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.

2. Preparation of the data. Data Provider shall prepare and furnish to Data Recipient data in accord with any applicable HIPM or FERPA Regulations.

3. Data Request details.

The Data collected via students’ participation in an online web based survey managed by Office of Institutional Research and Assessment.

The data collected through the survey shall only be used for the purpose of a research/dissertation titled MBA Student expectations for leadership skill development in class/online.

4. Responsibilities of Data Recipient. Data Recipient agrees to:

a. Use or disclose the data only as permitted by this Agreement or as required by law;

b. Use appropriate safeguards to prevent use or disclosure of the data other than as permitted by this Agreement or required by law;

c. Report to Data Provider any use or disclosure of the data of which it becomes aware that is not permitted by this Agreement or required by law;

d. Require any of its subcontractors or agents that receive or have access to the data to agree to the same restrictions and conditions on the use and/or disclosure of the data that apply to Data Recipient under this Agreement: and

e. Not use the information in the data to identify or contact the individuals who are data subjects.

f. Students’ records will be excluded in cases where there are less than five students in a concentration area.

g. The name SUNY Oswego will not be mentioned or associated with this study, the results and all subsequent publications.
5. Permitted Uses and Disclosures of the data. Data Recipient may use and/or disclose the data for its Research activities only. Data Recipient will destroy all data upon completion of dissertation project.

6. Term and Termination.
   a. Term. The term of this Agreement shall commence as of the Effective Date and shall continue for so long as Data Recipient retains the data, unless sooner terminated as set forth in this Agreement.
   b. Termination by Data Recipient. Data Recipient may terminate this agreement at any time by notifying the Data Provider and returning or destroying the data.
   c. Termination by Data Provider. Data Provider may terminate this agreement at any time by providing thirty (30) days prior written notice to Data Recipient.
   d. For Breach. Data Provider shall provide written notice to Data Recipient within ten (10) days of any determination that Data Recipient has breached a material term of this Agreement. Data Provider shall afford Data Recipient an opportunity to cure said alleged material breach upon mutually agreeable terms. Failure to agree on mutually agreeable terms for cure within thirty (30) days shall be grounds for the immediate termination of this Agreement by Data Provider.
   e. Effect of Termination. Sections 1, 4, 5, 6(e) and 7 of this Agreement shall survive any termination of this Agreement under subsections cord.

7. Miscellaneous.
   a. Change in Law. The parties agree to negotiate in good faith to amend this Agreement to comport with changes in federal law that materially alter either or both parties' obligations under this Agreement. Provided however, that if the parties are unable to agree to mutually acceptable amendment(s) by the compliance date of the change in applicable law or regulations, either Party may terminate this Agreement as provided in section 6.
   b. Construction of Terms. The terms of this Agreement shall be construed to give effect to applicable federal interpretative guidance regarding the HIPAA Regulations.
   c. No Third-Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.
   d. Counterparts. This Agreement may be executed in one or more counterparts. each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
   e. Headings. The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.
f. The data recipient will abide by the laws and regulations of the Family Education Nights and Privacy Act in maintaining and securing the data provided.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed in its name and on its behalf.

DATA PROVIDER

DATA RECIPIENT

Signed

Print Name: Dr. Mahran Nojan

Title: Director of the Office of

Institutional Research and Assessment

Print Name: Irene Scruton

PRINT NAME: DIRECTOR, MBA PROGRAMS
Appendix F

Informed Consent Form for Online Survey

You are invited to participate in an online survey to support a research study of differences in MBA student expectations for leadership skill development in online MBA and classroom MBA programs. This research project is being conducted by Irene Scruton, a doctoral candidate at St. John Fisher College. For further information Ms. Scruton can be reached at ______________.

The purpose of the study is to research the degree of differences in MBA student expectations for leadership skill development in online MBA and classroom MBA programs. You were selected for this survey because records indicate you are enrolled in an MBA classroom or MBA online program during the 2016-2017 academic year at SUNY Oswego. The survey should take approximately 15 minutes.

There are no foreseeable risks involved in participating in this study other than those encountered in day to day life with online technology. To minimize those risks, your survey data will be submitted by a link to a neutral third party, the Institutional Research and Assessment Department of SUNY Oswego, where response data will be stored in a password protected electronic format. Identifying information such as your name, email address, or IP address will not be collected and no one will be able to identify you, your answers, or participation. Your participation in this survey is voluntary. As a research participant, you have the right to:

1. Have the purpose of the study, and the expected risks and benefits fully explained to you before you choose to participate.
2. Withdraw from participation at any time without penalty
3. Refuse to answer a question without penalty
4. Be informed of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to you
5. Be informed of the results of the study

The Institutional Review Board of St. John Fisher has reviewed this project to insure requirements for research with human subjects were met. If you have any questions or concerns concerning your rights as a research subject, please contact the Institutional Review Board (IRB) of St. John Fisher College by contacting Jill Rathbun by phone at ______________ by email at: rlb@sjfc.edu. The Human Subjects Committee of SUNY Oswego has also reviewed this project to insure requirements are met. You may contact the SUNY Oswego Human Subjects Committee with questions or concerns by contacting David.Bozak@oswego.edu. If you have any
questions about this project you may contact the researcher, Irene Scruton at ________ or at ________@sjfc.edu. You may also contact the researcher to obtain the research results.

By clicking “I Agree” below you are indicating that you are at least 18 years old, have read and understood this consent form, and agree to participate in the research study. Please print a copy of this page for your records.