

TEST DRIVE ONLINE EDUCATION: HOW A SIMULATED ONLINE LEARNING
EXPERIENCE INFLUENCES PROSPECTIVE STUDENT PERCEPTIONS, ATTITUDES,
AND BEHAVIORS

by
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Abstract

The online education marketplace for higher education has become increasingly saturated with competition since the advent of the World Wide Web. Academic institutions have had to find innovative ways to attract new online students. This thesis sought to examine if and how participation in a simulated online learning experience influenced prospective online students' decision to pursue an online degree program. Using survey and in-depth interview methodologies with 20 prospective online students, this study measured the perceptions, attitudes, and behaviors of participants before and after taking part in a simulated online learning event. One important finding indicated that participation in the simulation demystified the online learning environment, thus alleviating curiosities and anxieties associated with online learning. Results also revealed two different cohorts of participants—experienced, stealth learners and inexperienced, persistent learners—indicating that the level of online learning experience participants had informed how they behaved in the simulation. This thesis suggests that participation in a simulated online learning experience better informs prospective online students in their decision to pursue an online degree program.

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Preface

Acknowledgements

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Test Drive Online Education: How a Simulated Online Learning Experience Influences Prospective Student Perceptions, Attitudes, and Behaviors

Online education began with the invention of email in 1971 and has since evolved into the innovative, competitive, and profitable industry higher education thrives on today (Moore, Dickson-Deane & Galyen, 2011). The advent of the World Wide Web in 1992 accelerated growth and access to online education so quickly that by 2003, 90% of public institutions, 88.6% of private for-profit institutions, and 52.6% of private not-for-profit institutions were offering Web-based online courses (Allen & Seaman, 2004). By 2013, the online education market was so saturated with competition that academic institutions, like Drexel University, had to find new ways to attract prospective online students.

Drexel University, a private not-for-profit institution offering fully online courses since 1996, sought to create a new way to attract prospective students by educating them about the online student experience (Harvatt, 2016). Utilizing current research about the online student experience, Drexel University's wholly owned not-for-profit subsidiary, Drexel University Online (DUO), developed a week-long online learning simulation that allowed prospective students to test-drive Drexel's virtual learning environment, at no cost, before they applied to their online program of interest. The purpose of creating a simulated online learning event was to build affinity among prospective students for the online learning environment and Drexel University, and reinforce their potential for long-term success. The simulation—referred to as the “Test Drive”—was created to mirror the virtual classroom by incorporating modules with student-focused and program-specific information, discussion boards for peer-to-peer engagement, and online learning exercises to help participants familiarize themselves with the environment.

My thesis sought to examine how a simulated online learning event, like DUO's Test Drive, influenced prospective online students' perceptions, attitudes, and behaviors toward online education. While there is a large body of research that analyzes current online student perceptions, attitudes, and behaviors in many different aspects of online education, little research has been conducted on those of prospective online students. Some published research studies have posited that building self-regulatory behaviors and confidence in current online students can enhance their ability to use online learning technologies, thus improving perceptions of online education, increasing comfort levels in the virtual learning environment, and creating an overall positive learning experience (Tseng & Kuo, 2010; Hung et al., 2010). Others have analyzed the online learning environment and relayed that mindful online course design and user-interface, and active online student participation can have an influence on students' satisfaction with their online learning experience (Hung & Zhang, 2008; Liu et al., 2010). However, none of the research found during an extensive literature review analyzed the effects of an educational simulation on prospective students. My thesis may be one of few research studies that analyzed prospective online student perceptions, attitudes, and behaviors toward online education after completing a simulated online learning event.

The results from my thesis could provide higher education professionals with rich, vivid insights into the decision-making process of prospective online students. Participation in the Test Drive allowed prospective students to experience what it would be like to be an online student at Drexel University, and therefore become better informed to make the decision on whether to pursue their online program of interest. In the process of participating in a simulated online learning experience, participants' perceptions, attitudes, and behaviors toward online education

could be challenged, influenced, and shaped, and thus contribute to their decision-making process.

Literature Review

This literature review chronicles the evolution of online education and the role it plays in the current higher education marketplace. I also summarize studies that examine how student perceptions, attitudes and behaviors influence online learning experiences. Taken together, these components of the literature review illustrate the growing prominence of online learning in higher education and the importance of exposing students early and often to the online learning environment to condition them for positive and successful learning experiences. The concept of a simulated online learning experience—a virtual event built for the purpose of acclimating prospective students to the online classroom—is introduced as a solution to common online education pain points for many post-secondary academic institutions.

Online Education in Higher Education

While online learning is only a few decades old, distance learning—which is often lumped in synonymously with online learning—has a history that spans two centuries (Spector et al., 2014; Moore, Dickson-Deane & Galyen, 2011; Colorado & Eberle, 2012). According to Moore, Dickson-Deane, and Galyen (2011), distance learning describes the effort of providing access to learning for those who are geographically at a distance. Conversely, Dabbagh and Bannan-Ritland (2005) define online learning as “an open and distributed learning environment that uses pedagogical tools, enabled by Internet and Web-based technologies, to facilitate learning and knowledge building through meaningful action and interaction” (p.15). During the last two centuries, there have been significant changes in how members of society communicate, from basic written correspondence to the variety of communication tools offered with the advent of the computer and World Wide Web. Society has been shaped by innovations in

communication and has developed new learning and teaching styles to adapt to the evolution of technology in education.

In contrast to common assumptions that online education began after the advent of the World Wide Web in 1992, online learning has had a lengthy history, filled with research, development and experimentation, that dates back to the invention of email in 1971 (Harasim, 2000). The adaptation and usage of computer networks in higher education began in the mid-1970s when faculty members started linking their students to the larger knowledge sharing community by introducing e-mail, computer conferencing, and file-sharing into their courses. The first fully online course was part of an executive training program in 1981 and was met with substantial criticisms from both faculty and students (Harasim, 2000). Since no one had ever taught or taken a course fully online, participants proceeded blindly, without context, base of knowledge, or precedent. While trying to master the online group environment, the course's associated faculty were met with low student participation and long virtual silences. The trial and error methods of these early online courses yielded important discoveries that still hold relevant to this day: long text lectures do not work online; faculty need group learning activities, such as discussions, to illicit student participation.

As access to computers and networks continued to grow throughout the 1980s and early 1990s, so too did the concept of the virtual classroom. By the time the World Wide Web materialized in 1992, new methods of teaching and learning had been prepared for the revolution in the field of education that was about to take place. In 1995, the Sloan Foundation—now known as the Online Learning Consortium—hand-picked 10 post-secondary academic institutions from across the nation and provided seed grants for each to explore the potential for asynchronous, internet-based, online learning. Of the 10 universities, Drexel University, a private

not-for-profit academic institution based out of Philadelphia, became the first to unveil a fully Web-based online degree program— a Master of Science in Information Systems, followed shortly by a Master of Science in Library and Information Science—in 1996 (Harvatt, 2016). Since then, Drexel University has led the way in the development of innovative online teaching and learning models that have shaped the field of online education as we know it today. The following section explores Drexel’s role as a hub for online education, providing the historical foundation that fuels this thesis’ focus on continuous improvement of the online student experience.

Online Education at Drexel University

Since its founding in 1891 by financier and philanthropist Anthony J. Drexel, Drexel University has established itself as a hub for technological innovation and professional development. In conjunction with Drexel’s 125th anniversary, a comprehensive historical book titled, *Building Drexel: The University and Its City 1891-2016*, was created to chronicle the University’s history over the last 125 years, including details about the 20 years Drexel has spent pioneering in the realm of online education. After becoming the nation’s first university in 1983 to require all undergraduates to have access to microcomputers for use in their coursework (Dilworth & Knowles, 2016), Drexel took on the Sloan Foundation’s e-learning challenge in the mid-1990s. Under the progressive leadership of then President Constantine Papadakis, Drexel added its College of Nursing and Health Professions (CNHP) to the list of early online adaptors. In an effort to bring the college back from bankruptcy, open new revenue streams, and grow Drexel’s reputation in the healthcare field, CNHP added master’s courses in nursing leadership to Drexel’s online learning portfolio. CNHP also had the foresight to adopt Blackboard Learn as

its web-based learning management system (LMS) early on, which eventually became Drexel's primary LMS (Harvatt, 2016).

Pleased with the initial success of Drexel's online learning initiative, Papadakis approved a substantial investment to establish a separate operation that would identify marketable online degree programs, recruit qualified students, and help prospective students through the application process. Thus, in 2001, Drexel e-Learning (DeL) emerged as a wholly-owned, for-profit subsidiary of Drexel University (Harvatt, 2016). At the turn of the twenty-first century, during which time academic institutions rapidly began entering the online education marketplace in response to the Internet explosion, DeL saw exponential growth in online student enrollments and generated significant income for itself and the University. In conjunction with promoting market-responsive online programs to prospective students, DeL worked with the University to build a sustainable online learning model that transferred existing profitable degree programs to the online space and partnered with faculty members to translate face-to-face courses into the virtual classroom (Harvatt, 2016).

During this period of accelerated growth in Web-based online learning in higher education, three sectors were identified to track the growth of the online education industry: public not-for-profit institutions, private not-for-profit institutions, and private for-profit institutions. By 2003, 90% of public institutions, 88.6% of private for-profit institutions, and 52.6% of private not-for-profit institutions were offering Web-based online courses (Allen & Seaman, 2004). During the Fall of 2003, over 1.9 million students were studying online, with 82.9% enrolled in public institutions, roughly 11% enrolled in private not-for-profit institutions, and approximately 4% enrolled in private for-profit institutions (Allen & Seaman, 2004). According to Allen and Seaman (2013), online student enrollments for each sector continued to

grow at rates far in excess of those of overall higher education throughout the first decade of the twenty-first century.

By 2010, the online education market was completely saturated with competition, and although online student enrollments across the nation continued to increase, enrollments for the private not-for-profit academic institutions began to slow (Allen & Seaman, 2011). With over 6.1 million students taking at least one course online—that's one-third of all higher education students (Allen & Seaman, 2011)—Drexel University, once again, needed to innovate in the online space in order to regain its pioneering role in online education. In 2013, DeL, under the leadership of Dr. Susan Aldridge, began to shift its focus to the changing demographics of non-traditional, adult learners, who made up three-quarters of the online college-going population (Aslanian & Clinefelter, 2013), and whose academic needs were vastly different from traditional, on-campus students. Under the guidance of Dr. Aldridge, Drexel e-Learning dissolved its wholly owned, for-profit subsidiary status and merged with the university in 2015 to become the not-for-profit entity officially known as Drexel University Online (DUO) (Harvatt, 2016).

Under this new arrangement, DUO has moved beyond simply recruiting and enrolling online students, to focusing on the virtual student experience through creating engaging and accessible online courses, and by developing support systems to facilitate academic success—from enrollment through graduation and beyond. In 2015, DUO launched a free online course that allowed prospective students to "test-drive" the virtual learning experience, before they enroll, to determine if it is a good fit and meets their academic needs (Harvatt, 2016). Since its launch, the simulated online learning event has registered over 7,700 prospective students, with the ultimate goal of preparing them for academic success and increasing overall degree program completion rates (Harvatt, 2016). My thesis seeks to understand if and how the simulated online

learning event—dubbed the “Test Drive”—influences prospective online student perceptions, attitudes and behaviors toward online education. The following sections examine several published research studies that analyze student perceptions, attitudes and behaviors, and how they were influenced by the online learning environment.

Online Learner Perceptions, Attitudes and Behaviors

Online education, compared with traditional face-to-face education, has retained a longstanding stigma despite its technological advancements and growing popularity in higher education. The stigmatization of online learning is held by academics and non-academics alike. The general public, according to a 2011 Pew Research Center study, still has its reservations and concerns when it comes to online learning. While 46% of those surveyed had taken at least one online class within the past 10 years, only 39% of that share said their online course offered the same value as traditional courses (Pew Research Center, 2011). Chief academic officers also report little to no improvement over the last decade of faculty member acceptance of the online learning modality. According to the Online Learning Council’s 2015 annual report, 29.1% of chief academic officers believe their faculty accept the legitimacy and value of online education (Allen & Seaman, 2015). This rate is lower than 31% reported in 2005 (Allen & Seaman, 2005).

Whether individuals are teaching or learning in the virtual space, their perceptions of online education influence how they experience the online learning environment. This section examines research studies that analyzed the perceptions, attitudes and behaviors of online learners and how they influence their online learning experiences. The research referenced in this section also identifies what characteristics and behaviors are necessary for online learners to possess and exercise in order to have a successful online learning experience.

As more traditional learners shift from face-to-face class settings to online courses, expectations for student and instructor engagement in the online environment continue to be challenged. LaPointe and Reisetter (2008) sought to analyze students' perceptions toward the online learning community in comparison to traditional face-to-face settings and how their perceptions influenced their learning by evaluating three types of interactions in online courses: student-to-course, student-to-instructor, and student-to-student. The researchers designed a survey with a five-point Likert scale that asked respondents to measure the value and importance of online communities to their learning, and also solicited qualitative testimonial. The survey was distributed electronically to students enrolled in online graduate courses through state institutions, and gleaned a total of 74 responses. The quantitative data revealed that students experienced significantly more interactions with their online instructors than with their online peers and that they valued those student-to-instructor exchanges more than student-to-student interactions in the online course. The data also showed that students placed little importance on interactions with their online peers to influence their overall learning experience.

An examination of the qualitative data from LaPointe and Reisetter's (2008) research, in the form of student comments, uncovered two groups of participants exhibiting different perceptions. The first group highly valued face-to-face interactions, which in turn negatively affected their experience in the online learning community. The second group "primarily valued the online learning medium because of the independence it afforded and minimized the importance of peer exchanges" (p. 650). The second group also emphasized maturity and self-regulation as important factors in their learning. LaPointe and Reisetter's overall analysis revealed that learners have different expectations for the online environment based on their perceptions, and placed value in the different skills and processes it took to be successful in the

online classroom. The findings from this research support my thesis by demonstrating that students' perceptions of online education can influence how they experience the online learning environment. Students that possess negative perceptions of online education can have vastly different experiences than those that possess positive perceptions.

Just as perceptions of online education can influence how participants experience the online learning environment, so too can behaviors in the online learning space. To be successful in the online learning environment, learners should develop and exercise self-regulatory behaviors that allow them to work effectively with instructors and peers, while also comfortably working independently. Self-regulation is a combination of personal beliefs, individual behavior, and the environment that influences an individuals' efforts, courses of action, and attainment of goals (Pintrich, 2000; Schunk, 2003; Zimmerman, 1989). In the study conducted by Tseng and Kuo (2010), researchers sought to design and validate a self-regulation model that explored the effects of social capital and social cognitive factors on knowledge-sharing behaviors in an online learning community. Researchers distributed a questionnaire to teachers enrolled in K12 Digital School courses in Taiwan, and received a total of 161 valid responses. Results revealed a significant correlation between self-efficacy perception and knowledge-sharing behavior, suggesting that "one's confidence in his or her capability to share knowledge increases the likelihood of knowledge sharing engagement" (p. 1049). Online learners fostered a sense of community by regulating internal motivation, self-confidence, help-seeking strategies, and interpersonal relationships, which in turn strengthened professional competencies leading to successful collaborations with others. These findings relate to my thesis by effectively demonstrating the importance of developing confidence, self-efficacy, and self-regulatory

learning behaviors in order to become comfortable in online learning environment and improve the quality of the online learning experience.

Many existing research studies have focused on identifying factors that predict student success in the online classroom by analyzing student attitudes and behaviors. Hung et al. (2010) sought to build upon existing research by constructing an instrument—the Online Learning Readiness Scale (OLRS)—that examined online learner behaviors and determined what dimensions of online learning readiness were necessary to achieve effective learning in web-based courses. Questionnaires were distributed to undergraduate online learners enrolled in fully online, asynchronous courses at universities in Taiwan. A sample of 1,051 responses were collected asking participants to describe themselves in reference to a five-point Likert-type scale that covered the model's five dimensions: self-directed learning, learner control, motivation for learning, computer/Internet self-efficacy and online communication self-efficacy. Results showed that the sample population of participants had the highest readiness in the dimension of computer/Internet self-efficacy, followed by motivation for learning and online communication self-efficacy. The lowest readiness dimensions were learner control and self-directed learning.

The study conducted by Hung et al. (2010) suggested that many college undergraduate learners were confident in their computer/Internet-based technical skill sets, but needed training and guidance relative to online learning in order to become familiar with the learning system and reduce the likelihood of technical difficulties. The study also suggested that teachers should help online learners develop self-directed learning and learning-control skills and attitudes by designing activities to engage students and build online learner communities. The findings relate to my thesis by demonstrating that some online learners may have high confidence in their

computer/Internet-based skills, but still need exposure and training in the online learning environment to prevent negative experiences.

In sum, the studies reviewed in this section revealed some of the perceptions of online learners and how those perceptions can influence the overall online learning experience. The studies also uncovered behaviors and attitudes many online learners possess that can determine the outcome of their learning experiences. While previous research has recognized common perceptions, attitudes and behaviors possessed by online learners, and identified methods to improve the online learning experience, little research has been done on prospective students and how their perceptions, attitudes and behaviors influence their online learning experience and decision to pursue an online degree program. The following section references research studies that evaluate the online learning environment and measure how it influences participants' online learning experience.

Online Learning Environment

The online learning environment, also commonly referred to as a Learning Management System (LMS), a Course Management System (CMS), a Virtual Learning Environment (VLE), or a Knowledge Management System (KMS), is a powerful, complex tool used as the basis for online learning. According to Moore et al. (2011), the online learning environment is a Web-based platform that houses digital learning objects used for courses of study in online education. The environment is traditionally built with a user-friendly interface filled with digital resources chosen by the online course instructor. This section analyzes studies that delve into the online learning environment and evaluate factors that influence the online learning experience, such as student participation, course design and user interface, and student technical skill sets. The studies referenced in this section also stress the importance of early exposure to the online

learning environment to improve the likelihood of a positive and successful online learning experience.

Many research studies have used data mining to extract information from online learning environments and analyze for behavioral patterns (Jovanovic et al., 2012; Mor, Minguillón & Carbó, 2006). Hung and Zhang (2008) sought out to build a model for predictive online learning by identifying typical patterns in online learning behaviors through analyzing a fully online undergraduate course's server logs using data mining techniques. Ninety-eight students' online learning behaviors were recorded in server logs throughout the six-week course and analyzed for frequency in learning management system logins and accessing course materials, number of bulletin board messages posted and read, and number of synchronous discussions attended. Analysis of this data revealed that the most common online learning behaviors were logging into the learning management system and accessing course materials. The data also showed that students preferred asynchronous communications—posting messages and reading messages—as opposed to participating in synchronous discussions—real-time conversations. The student performance predictive model revealed the frequency of accessing course materials was the most important variable for performance prediction; thus indicating that when students participated more actively throughout the course (i.e. had a higher frequency of accessing course materials, number of messages posted and read, and number of synchronous discussions attended), they obtained a higher grade at the conclusion of the course and, overall, performed better academically. The findings relate to the present study by demonstrating the positive correlation between active participation by students in online courses and a positive overall online learning experience.

In the same vein of student participation in the online learning environment, Liu et al. (2010) sought to analyze specifically how participants navigated and interacted in the technology enhanced virtual classroom. Researchers adopted the Technology Acceptance Model (TAM) (Davis, 1985) framework, which suggested that “the ease of use and usefulness of a technology affect[s] users’ intention to use it” (p. 600), and applied it to a total of 436 Taiwanese high school senior online learners to determine whether online interactions influenced learning behaviors. The researchers analyzed the relationships between online course design, perceived usefulness, perceived ease of use, perceived interaction, user-interface design, previous online learning experience, and intention to use. Research participants were administered a five-point Likert-type scale questionnaire with seven constructs. The results proposed that online course design is the most significant determinant that directly affects perceived usefulness. This indicated a positive correlation between greater student satisfaction derived from the online course curriculum and the perceived usefulness of the course. The results also found that the user-interface is the most important determinant that affects perceived ease of use. This implied that the more user-friendly a system was, the more comfortable and confident the user felt. It was also proposed that online course design was the main determinant that affected perceived interaction. This suggested that when interactive communication tools were integrated into the online course, student engagement increased. Researchers also found that if learners had previous online learning experience, “even just experience in using related information technologies...they may be much more willing to participate in an online learning community” (p. 608). The findings relate to the present study by demonstrating the importance of online course design and user interface in the online learning environment and how these factors can influence student satisfaction with their online learning experience.

Researchers Rodriguez, Ooms and Montañez (2008) also sought to determine what factors in the online learning environment correlated with online learning satisfaction. Through a study that focused predominately on the perceived quality of online learning experiences, the researchers came to the realization that the success of an online course rests on the online education and technology experience levels of both the students and instructors. A structural equation model was constructed by the researchers to analyze the following four constructs identified in the study's research questions: level of comfort with technology, motivation to learn technology skills, level of satisfaction with previous online learning experiences, and perceived quality of online courses. A survey containing questions addressing these constructs was administered online to enrolled students in a post-BA, professional, and graduate school of education, contributing a total of 698 viable responses.

The results of this study determined that "For students with online-learning experience, comfort with technology and motivation to learn technology skills were related to satisfaction with online courses, which was related to perceived quality" (p. 105). This indicated that students who were more comfortable with technology and had higher levels of motivation were more likely to be satisfied with their online courses. Conversely, for students with limited or no online-related learning experiences, comfort with online learning technologies was strongly related to motivation to learn technology skills. According to the study's analysis model, comfort with technologies and motivation did not predict perceived quality of online courses for non-experienced students. Researchers drew the conclusion that "To support future success of students and their satisfaction with online courses...educators would do well to help prepare students for the technological demands of the course either through prerequisites or direct training" (p. 115). The findings relate to the present study by supporting the need for early

intervention with students prior to beginning their online courses in order to improve their comfort level in the online learning environment and increase the likelihood for a positive online learning experience.

In sum, the studies reviewed in this section revealed factors within the online learning environment that influenced overall online learning experience. These factors included increased participation levels in the environment that led to improved academic performance; highly user-friendly systems that made the user feel more comfortable and confident; and the technical skill sets obtained by users that led to more satisfying online learning experiences. While previous research has recognized the importance of providing current students with technical training for the online learning environment in order to persist in their online courses, little research has been done on exposing prospective online students to the environment to evaluate how it influences their desire to pursue an online degree program and prepare them for the online classroom.

This literature review has summarized the historical rise of online education in higher education and how student perceptions, attitudes and behaviors can influence their online learning experiences. Many of the studies highlighted in this review identified factors that influence the online learning experience, including perceptions and stigmas toward online education, self-efficacious attitudes and self-directed learning behaviors, active participation in the online learning environment, and experience levels with technology and online learning. Conclusions drawn from these studies revealed the importance of orienting current students to the online classroom early on in their online program to improve their overall experience and increase their likelihood for academic success.

Despite the plethora of research available to advance practices in online teaching and learning for current students and instructors, little research has been done on prospective students

and the interventions needed to prepare them for online education. In addition, no research has been documented that analyzes the effects of exposing prospective students to a simulated online learning environment and how it influences their desire to pursue an online degree program. To fill these gaps, the current study asks:

RQ1: How does participating in a simulated online learning experience influence prospective online student attitudes and behaviors?

RQ2: How do prospective online students perceive online education after participating in a simulated online learning experience?

RQ3: What are the typical online learning behaviors exhibited by prospective online students in the simulated online learning event?

Method

Research Design

The present research study employed a qualitative research approach with a combination of survey data collection before the simulated online learning experience began, followed by the collection of data through the administration of in-depth interviews after the virtual event concluded. The study's research participants completed a survey prompting them with questions about their experiences with online education, online learning environments and technology prior to participating in the week-long Test Drive event. After the event concluded, each participant took part in an in-depth interview to allow the researchers to gain a deeper understanding of their behaviors while in the online learning environment, and their attitudes and perceptions toward online education after participating in the simulation. The following sections describe in detail the research methods chosen for this study, the participant recruitment strategy, instruments utilized in the study, and how the data collected was measured and analyzed.

Survey and In-Depth Interview Methodologies

Survey methodology was used in this study as the first touch point to collect data from research participants. An electronic survey was designed and distributed to participants in order to gauge their perceptions, attitudes, and behaviors toward online education before participating in a simulated online learning experience. To determine if participation in a simulation had an influence on participants, the survey method was chosen to establish a basic understanding of the participants' experience with and perceptions of online learning. While this method was appropriate for the participants' first evaluation, it was not a suitable method to collect data throughout the entire research process. According to Andrews, Nonnecke, and Preece (2003), "Surveys are imperfect vehicles for collecting data" (p.186). Survey questions can be designed to

bias participant judgment and answers. An alternative solution to improve the quality of participant responses is to combine survey data with individual interviews (Andrews, Nonnecke & Preece, 2003). Therefore, after each participant completed the Test Drive, they were asked to take part in an in-depth interview.

In-depth interview methodology was an appropriate method for this study. While asking open-ended questions to research participants about their perceptions, attitudes, and behaviors toward online education, and evaluating their experiences within the Test Drive, I was able to determine if and how participating in a simulated online learning experience influenced perspective students' choice to pursue their online academic program of interest. According to Mack et al. (2005), in-depth interviews "are an effective qualitative method for getting people to talk about their personal feelings, opinions, and experiences" (p.30). In order to gain a deeper understanding of how the simulated online learning experience influenced prospective students' decision making process, participants in the in-depth interviews needed a safe environment to share their opinions and speak honestly about their experiences. By actively probing participants about their beliefs and perceptions toward online education, and then connecting their insights with their survey data and behaviors in the Test Drive event, I was able to understand if and how participating in a simulated online learning experience influenced their choice to pursue a degree program online.

Participant Recruitment

A total of 20 participants were recruited for this research study using a recruitment strategy that utilized a simple list of qualification criteria for the participants and distributed messaging through various digital communication channels. Each eligible participant was 18 years or older and not currently enrolled as a student at Drexel University. Participants also had

access to a computer, telephone, and the Internet. The sample size chosen for this study was determined by the concept of theoretical saturation. According to Sandelowski (1995), "...the more variability there is within the confines of a qualitative project, the more numbers of sampling units the researcher will require to reach informational redundancy or theoretical saturation" (p.181). The confines of this study allow for versatile participant recruitment with demographic and phenomenal variability. Therefore, the sample size of 20 participants yielded enough data to present a deep, case-oriented analysis with a rich understanding of the participants' experiences.

The participant recruitment process was integrated into Drexel University Online's (DUO) Test Drive promotional campaigns. Confirmed research participants were those who received advertisements from DUO about the monthly Test Drive event through various communication channels. The monthly Test Drive event was advertised through emails, the DUO website, DUO's social media channels, during webinars and partnership presentations, and through conversations with representatives in the call center.

In order to participate in the event, individuals navigated to the Test Drive's designated webpages to register. During the timeframe in which the research study was being conducted, the registration webpages contained language promoting participation in the study. Individuals indicated their interest in learning more about the study by selecting an opt-in field embedded into the registration form. After the registrant opted-in to learn more, I sent a follow-up email with detailed information about the study and a consent form. Once the registrant confirmed their eligibility and signed the consent form, they began the research study process by completing the survey.

The study's recruitment efforts over seven months yielded more than 550 Test Drive registrant inquiries into learning more about the research study. The first 20 registrants that qualified for the research study, signed the consent form, and completed all three steps of the research process were officially recruited as participants. The study's participant demographics were comprised of 19 females and one male, with two participants aged 18 to 24, seven participants aged 25 to 34, three participants aged 35 to 44, four participants aged 45 to 54, three participants aged 55 to 65, and one participant aged 65 or older. The uneven ratio of female to male participants could be explained by the gender differences in technology and Internet acceptance. Females tend to feel less confident in their use and acceptance of technology and the Internet (Braak, 2004; Chou, Wu, & Chen, 2011; González-Gómez et al., 2012; Terzis & Economides, 2011), and according to Ong and Lai (2006), behavioral intention to use online learning was higher if the females felt the system was easy to use. Therefore, females may be more likely to participate in the Test Drive in order to gain confidence in their use of technology and evaluate the ease of use of the learning management system before they apply to their online degree program of interest.

Instruments

Research study participants were asked to complete three tasks: fill out a survey, participate in the week-long simulated online learning event, and take part in an in-depth interview. The purpose of including these tasks in the study's procedure was to gauge perceptions, attitudes, and behaviors toward online education before, during, and after participation in the Test Drive, with the ultimate goal of determining if and how participants were influenced by taking part in a simulated online learning experience.

Before starting the Test Drive, participants were asked to complete a 16 to 18 question survey that specifically gauged their experience and perceptions of online learning, and expectations of the simulated online learning event by using a five-point Likert-type scale. The survey was administered entirely online and completed at the participants' convenience prior to entering the Test Drive. The survey utilized Qualtrics skip logic to guide participants through the questionnaire based on their experience levels with online learning. The questions were close-ended and took participants an average of three minutes and 27 seconds to complete.

After the survey was completed, participants logged into Blackboard Learn—Drexel's learning management system—using the unique login and password information provided prior to the event, and then began navigating the Test Drive. Although the Test Drive's online learning environment was open for a full week (from Friday to Friday), the event did not officially begin until Monday morning at 9:00 a.m. Eastern Standard Time. Participants were invited to explore the environment over the weekend, and then begin posting to the discussion boards, collaborating with Drexel Ambassadors and other prospective students, answering poll questions and quizzes, and submitting sample assignments once the event officially began. Each day the event was active, participants were greeted with new activities and resources to help them explore the online learning environment. These activities and resources included student-focused and program-specific information to assist participants in adjusting to the online student experience. The event concluded on Friday at 3 p.m. Eastern Standard Time, but the environment still remains open for participants to access event materials whenever they please.

Upon completion of the Test Drive, each participant took part in an in-depth interview. The interviews took place over a secure phone conference line and were recorded. Using an interviewer guide, I asked approximately seven main questions, followed by prompt questions

for a deeper understanding of the participants' experiences in the simulated online learning event. The topics that were covered included evaluating the participants' experiences in the Test Drive, determining pre- and post-event perceptions, attitudes, and behaviors toward online education, self-evaluation as an online student, and gauging next steps in the application process for their online academic program of interest. At the conclusion of the research study process, each participant received a \$30.00 gift card to Amazon.com.

Data Analysis Plan

Following the in-depth interviews, the audio recordings were transcribed into text. To protect the anonymity of the research participants, each was assigned a number. This provided accurate organization of complex data and allowed me to delete all recordings to prohibit the identification of participants from their recordings. Included with the transcribed recordings was each of the participants' survey data, which were assigned corresponding numbers with their interview transcriptions to evaluate for any perception, attitude or behavior change over the course of the research process. I then used a grounded theory approach to identify themes within the survey data and transcribed interviews. Through an open coding system, I identified and labeled categories based on the study's research questions. I then used selective coding to refine my analysis and select the strongest themes to answer each research question.

Eliminating Bias from Data Analysis

My interest in the area of online student behavioral research stems from professional and personal experiences with online education. Throughout the last seven years of my career, I have worked for multiple academic institutions in various roles in the field of communications. I am currently a Communications Manager for Drexel University Online, where I have had the opportunity to develop content for the Test Drive and promote the virtual event to prospective

online students. While in this role, I have become intimately familiar with the structure of the Test Drive and have created email, website and social media messaging to educate target audiences about the event. Participation in this project piqued my interest in online student behavior, and more specifically, in determining if participation in the Test Drive has an impact on prospective online students. However, I realize that this interest and professional affiliation can spur concerns regarding biases. Therefore, I took precautionary measures during the in-depth interview process to prompt participants with questions addressing the entirety of their experience within the simulation and did not focus on any particular piece of content.

My personal experience with online education has also played a role in my interest in the area of online student behavioral research. My experience with graduate-level education has been exclusively through the online classroom. Therefore, my interest in researching the effectiveness of a simulated online learning experience on prospective online students contains significant professional and personal value, but also runs the risk of potential biases. For example, a person with my extensive knowledge of online learning platforms may react defensively to an individual who makes negative generalized assumptions about online education based off the short amount of time they spend in an online classroom, without acknowledging that building affinity for online learning is a process done over time. Additionally, someone in my position who has participated in the creation of content for the Test Drive may be sensitive to the feedback and criticisms of event participants, without acknowledging that prospective online students have many different needs and expectations, and the Test Drive is not currently built to address them all.

Since the Test Drive is a product of Drexel University Online and the organization is funding this study, I had to scrutinize all of my own potential biases and create processes to

counteract them. I acknowledge that conducting in-depth interviews without interjecting my own opinions or affirmations that could potentially alter research participants' responses could be challenging. Therefore, I took extra precaution during the interview process to write down generic phrases I could repeat to participants after their responses to interview questions. Additionally, when analyzing the survey and interview data for themes relating to the study's research questions, I was careful to objectively examine the data from several angles so that I did not inadvertently collect participant testimonial that favored one perspective over another. Ultimately, I implemented these processes to the best of my ability to reduce the amount of personal bias within this research study. The evidence to support the answers to the study's questions are grounded in objective rational and are consistent with previous research conducted on online student perceptions, attitudes and behaviors.

Results

A total of 20 prospective online students participated in this study. Among the participants, four were interested in bachelor level degrees, 13 were interested in graduate level degrees, and three were interested in certificate programs. Experience with online education ranged from no experience to high levels of experience, including some participants having already completed a degree program entirely online. Twelve participants claimed to have little to no experience, while eight claimed to have some to high levels of experience. The results from the survey and in-depth interview transcript analysis are reported in this section. The results are organized based on the study's research questions and the themes that emerged from the data collected in an attempt to answer each question. Quotations from the in-depth interviews are used to illustrate each theme.

RQ1: How does participating in a simulated online learning experience influence prospective online student perceptions, attitudes, and behaviors?

This research question aimed to identify how prospective online student perceptions, attitudes, and behaviors can be influenced by participating in a simulated online learning experience. The survey that participants completed before entering the Test Drive gauged their experience in an online learning environment, their feelings about participating in the event, and measured confidence in their ability to use technology. The in-depth interview data collected after the conclusion of the week-long Test Drive revealed that participating in the simulated online learning experience influenced how participants perceived the online learning environment, their attitudes toward online education, and their confidence in navigating new virtual learning environments.

Demystified the online learning environment. According to the survey, seven participants had no prior experience using the Test Drive's learning management system, Blackboard Learn, before entering the event, while 10 had experience with the system, and three were not sure. However, whether the participants claimed to have experience, many were curious about what the learning environment looked like and what engagement between student-to-student and student-to-instructor would be like. One experienced participant recalled:

I've participated in an online university before and their idea of online education was strictly to get your assignments off of Blackboard and submit them. There's no interaction with the teacher or other students, and I found that a lot of people didn't really put much effort into their responses. So, I just wanted to see what other people were doing as far as their responses and teacher feedback, and also to see if it was any different from what I had experienced before.

Another participant, one who had no prior online learning experience, commented about the Test Drive saying, "I think it was a great program. Having been somebody who's never taken an online class before, it really eased my mind about what was going to happen as an online student."

By allowing prospective students to preview the online learning environment before commencing their journey into online education, the academic institution demystifies the environment, thus orienting students to their future classroom. Another research study participant noted:

By doing the Test Drive, you already know what the virtual classroom looks like. And I think if I signed up for an online degree and that was the first time I was exposed to that environment, it would add another layer of learning. So, I think this little orientation is a good precursor to that. In fact, I think that maybe people should have to do this before they start their online degree or should be strongly encouraged.

Early exposure to the online learning environment conditions students to familiarize themselves with the classroom's technology and navigation, therefore diminishing curiosities about the

unknown, removing the initial adjustment period, and allowing them to begin their online programs with confidence.

Alleviated anxieties and nervousness related to the online learning environment.

Prior to beginning the Test Drive, research participants were asked to identify their feelings about taking part in a simulated online learning experience through the study's survey. While many identified being curious and excited, some also recognized feelings of anxiety and nervousness. One participant described feelings of nervousness during the in-depth interview and explained how participating in the Test Drive influenced their attitude towards becoming an online student, by stating:

I feel confident. I was relieved. I was a little bit nervous before, but I was relieved to find out that [the online learning environment] was Blackboard because I've got four years of experience with Blackboard. So, it put a lot of my nerves at ease. I know that I can do this and I'm not going to have a panic attack because I can't figure out how to turn in my assignments. So, I feel really good about it, actually.

Another participant noted how previewing the online learning environment will influence their behavior once they begin their online courses, by explaining, "I consider myself pretty technologically challenged. So, it was nice to actually see what to click on and how to do it so that if and when I do take a class, I won't be as nervous about that part." While both participants identified feelings of nervousness that could have negatively influenced their online learning experiences when in an online program, they also noted how early exposure to a virtual environment alleviated those emotions, thus preparing them for a successful online learning experience.

One participant went as far as to explain how and why participating in the Test Drive influences prospective online students' feelings toward beginning an online degree program. This participant stated, "...the biggest thing is making people feel comfortable. With the Test

Drive, you would take away a lot of their apprehension or fear or anxiety when they first start because as you do more, you get more comfortable.” Repeated exposure to an environment helps build confidence over time and increases comfort levels, therefore alleviating negative feelings.

Improved self-efficacy. Before entering the Test Drive, research study participants were asked to measure their confidence levels within the context of their own technical skill sets to complete an online degree program. Eleven of the participants ranked their confidence as high, while nine ranked their confidence as average to low. Conducting the in-depth interviews revealed that those who ranked their confidence as low saw improvement after completing the simulated online learning event. One participant, who ranked their confidence as low, stated after completing the event:

You do understand the [Blackboard] system better. You feel how it might be. You feel if you have a problem, you know who to contact. I’ll tell you, my comfort level was raised. I’m leaning more towards doing [an online degree program] now than I was before.

In this instance, the participant’s exposure to the simulated online learning experience not only improved their self-efficacy towards navigating the environment, but it also caused them to shift their perception in a positive way toward participating in an online degree program.

Another participant, one who had already obtained a degree entirely online, compared the Test Drive’s online learning environment with their previous academic institution’s, by noting:

Even though my previous school used the same platform, I think the manner in which the Test Drive is organized is so much more efficient in terms of finding the content and going to the assessments. So, I feel very much confident that this is going to be a much smoother experience for me than my first one.

Many other participants also commented on the Test Drive’s online learning environment and the advantages of being able to freely navigate the system before officially becoming an online student. One participant in particular observed:

[The Test Drive] was a well-put-together event. I think the material, in terms of the navigation, was well laid out and would serve the purpose to get me to recognize that the platform is one that I am comfortable using for the purpose of studying.

The ability to navigate an unfamiliar virtual environment, free of commitment, provided participants with the opportunity to improve self-efficacy, both in their abilities to navigate the technology and participate in online education.

RQ1 summary and discussion. In summation, the study's participants were guided through a research process that sought to gauge perceptions, attitudes, and behaviors toward online education before, during, and after participating in a simulated online learning experience to determine if participation had any overall influence. Results revealed that participation in a simulated online learning experience did have an influence on a majority of participants' perceptions, attitudes, and behaviors. Most notably, participant perceptions of the online learning environment were influenced after exposure, negative attitudes toward the online learning experience were mitigated, and confidence in online learning was improved through persistent self-directed learning behaviors.

With most (n=15) participants claiming to be curious about the online learning experience, the Test Drive proved to be key in demystifying the online learning environment. The study's survey results and in-depth interview testimonies revealed that regardless of prior experience with online education, participants were still curious about how the Test Drive's online learning environment looked and felt. Many of the participants had previous experiences with online education, which helped shape their perceptions of the online learning experience. As part of their personal research process for identifying whether Drexel University was a good fit, they questioned how the University's online learning experience compared with their previous ones. For this group of experienced participants, most were pleased with the Test

Drive's environment. Similar outcomes were concluded for participants claiming to have no experience with online education. Many of their perceptions about online learning were shaped through hear-say and assumptions made when comparing to traditional face-to-face education. By exposing prospective online students to the online learning environment, they are given the opportunity to make an informed decision about whether to pursue an online degree program at that particular academic institution.

Many of the study's participants were in the process of deciding to return to school after a long hiatus from their previous educational experiences, and some were even new to online learning in general. As explained through their in-depth interviews, the participants who had limited to no experience with online education expressed feelings of anxiety and nervousness. Participating in the Test Drive and being exposed to the online learning environment alleviated many of those feelings. Some participants were relieved to see that the environment emulated ones they were familiar with from previous academic institutions. Others drew comfort in knowing they had the ability to become familiar with the environment through the Test Drive prior to applying or enrolling in their online program of interest. An interesting finding revealed that many of the participants did not identify feelings of anxiety and nervousness during the study's survey process, but recognized and explained them after they completed the Test Drive. Exposing prospective students early on to a simulated online learning experience could alleviate feelings of anxiety and nervousness that are unknown to the individual, thus improving attitudes and increasing confidence in their abilities to complete an online degree program.

Some of the research studies examined in the literature review touched upon the importance of developing self-efficacy and self-directed learning behaviors in order for current students to have more positive learning experiences and be successful in the online learning

environment (Tseng & Kuo, 2010; Hung et al., 2010; Hung & Zhang, 2008; Rodriguez, Ooms & Montañez, 2008). This research study may be one of few that analyzes self-efficacy in prospective online students, especially before, during, and after a simulated online learning experience. According to Zimmerman (2000), Albert Bandura, the researcher who introduced self-efficacy as a key component in social cognitive theory, defined perceived self-efficacy as, “personal judgments of one’s capabilities to organize and execute courses of action to attain designated goals” (p.83). The results from this study revealed similar findings to those referenced in the literature review, in that research participants had more positive online learning experiences after they improved confidence in their abilities to navigate the online learning environment and use the technologies available to them in the Test Drive’s learning management system. What previous studies did not analyze was how improved self-efficacy could influence participants’ future online learning behaviors. This study revealed that improved self-efficacy in prospective online students gave them the confidence they needed to realize that pursuing a degree program online is an achievable goal.

RQ2: How do prospective online students perceive online education after participating in a simulated online learning experience?

This research question aimed to determine whether participating in a simulated online learning experience changed how participants perceived online education. In the survey participants completed prior to starting the Test Drive, they were asked to measure their general perception of online education using a five-point Likert Scale. The participants then proceeded to complete the Test Drive and take part in an in-depth interview. During the interview, participants were, once again, asked about their perceptions of online education. The data collected throughout the research process revealed that prospective online students are familiar with

common stigmas associated with online education. Participating in a simulated online learning experience played a role in disproving some of those negative assumptions.

Disproved stigmas and negative assumptions associated with online education. Most of the study's participants identified their general perception of online education as positive or somewhat positive (n=14) in the study's survey. When participants were prompted to examine their perceptions of online education during the in-depth interview, some claimed to have a positive or somewhat positive perception, while also discussing common stigmas and assumptions associated with online education. One participant explained how their own research into online education, and participation in the Test Drive, influenced their perceptions of common stigmas in online learning, by stating:

Before I even started looking into Drexel, I had a stigma about online learning. Before I'd say, "Why are you going online? You're not really a student." But now that I'm actually looking into it, it's a lot harder than I thought, and as a whole, I think it's better because I feel like I'm getting a better education.

Previewing the online learning environment caused this participant to draw their own conclusion about how challenging online learning can be. Another participant experienced a similar discovery about their personal assumptions toward online education, by commenting:

First, I used to say that in order for me to go online...this is what I used to say before I started taking the Test Drive...in order for me to do an online class, I felt that I needed a teacher in front of me. But I have changed that now because after taking the Test Drive, all you really have to do is...once [the environment] is set up, go to whatever [module] you have to complete and just start working.

One participant that maintained a positive perception of online education throughout the research process commented on a common stigma that was addressed in the Test Drive. They read an article in the Test Drive and noted its significance, by recalling:

I remember when I was reading the article in the [Test Drive] about how businesses and other professional entities view online degrees versus brick-and-mortar degrees, I agreed with the establishment that if you get a degree from an online program that has an

established university with a physical campus, it makes it a little bit more reputable. I'm more comfortable with online programs that are attached to actual universities rather than universities that only exist online.

Taking part in a simulated online learning experience caused participants to face common stigmas and assumptions associated with online education and allowed them to develop their own perceptions based on their personal experiences.

RQ2 summary and discussion. In summation, the research study's participants were surveyed before and after participating in the Test Drive to gauge if perceptions of online education were influenced after being exposed to a simulated online learning experience. Results from the survey revealed that most of the study's participants had a positive or somewhat positive perception of online education before entering the Test Drive. Although these perceptions remained uninfluenced throughout the research process, common stigmas and negative assumptions associated with online education were discussed by participants and disproven through participation in the virtual event.

While only three participants in the study's survey classified their perceptions of online education as somewhat negative (three others classified theirs as neutral), many of the participants—even those with positive or somewhat positive perceptions—chose to discuss common stigmas and assumptions associated with online education during their in-depth interviews. Prompting participants to dig deep into their perceptions of online education caused a few to recall stigmas and negative assumptions that were unearthed after taking part in the simulated online learning event. One such common stigma described online education as not being as engaging or effective as traditional face-to-face education (Benson, 2003). Participation in the simulated online learning event allowed the study's participants to draw their own conclusions about online education's effectiveness and engagement after experiencing the virtual

classroom. This was especially significant for participants with little to no experience with online education. The participants that engaged heavily with the virtual event noted its ability to foster an effective and challenging learning environment.

In addition to emulating the virtual classroom structure, the Test Drive also sought to address common stigmas in online education by posting information and resources to educate future online learners. Another common stigma associated with online education described employers as not viewing degrees earned online the same as degrees earned in the traditional face-to-face manner (Columbaro & Monaghan, 2009). An article addressing this topic was provided in the Test Drive and commented on by a participant during their in-depth interview. Since the topic was not top-of-mind for the prospective online student during their personal research into online education, addressing it early on and disproving the stigma increased the institution's credibility in the mind of the participant.

RQ3: What are the typical online learning behaviors exhibited by prospective online students in the simulated online learning event?

This research question sought to identify the most common behaviors exhibited by prospective online students while in the simulated online learning event, and then determine how the behaviors correlate with experience levels in online education. Through thorough analysis of the collected data, two groups of prospective online students emerged. The two groups, which contain seemingly opposite behaviors and experience levels, are labeled as “experienced, stealth learners” and “inexperienced, persistent learners.” These two groups are explained in detail in the following sections.

Experienced, stealth learners. The first group of participants identified was a cohort of experienced online learners that simply wanted to explore the online learning environment

without participating in any discussion boards or assignments, and then compare the environment with their previous online learning experiences. One participant recalled their previous experience and explained why they decided to participate in the Test Drive, by stating:

The class that I took was quite a while ago and I did feel that because it was online, there may have been some interaction that was not necessarily all that productive. So, part of what I was looking at was how things improved, and I do think that they have. I think the system is a lot smoother; easier to navigate. I was less interested in content and more [interested] in looking around at how everything was set up.

Many participants in this cohort found their first experiences with online education to be unsatisfactory and valued the opportunity to return to the online learning environment years later to see how it had changed. Another participant noted:

Blackboard seemed a lot easier to use. I remember using it in my undergraduate studies a couple of years ago and it wasn't as straightforward back then. It seems a lot easier to navigate through now and find what I was looking for, and to create threads and comments.

Many of the participants in this group noted spending little time in the Test Drive and only logged in one to two days out of the seven days the environment was active. Due to their previous experience with online education and goals for taking part in the virtual event, the participants quickly adapted to the environment and stealthily moved through the modules to gather the information they needed.

Inexperienced, persistent learners. The second group identified was a cohort of inexperienced online learners who had trouble acclimating to the online learning environment at first, but persisted and improved their confidence levels after participating heavily in the event. One participant explained their experience, by stating:

I was a complete newbie with grad school online study. I've done podcasts and various other things, but this was, in many ways, more structured and less so than other things I've done online. So, the frustration level on Monday was fairly high, but it got easier and more doable. I did all of the homework. I did the readings that go around finding research

in the library, and I did a lot of work in the career area. So, as the week went on, obviously it got clearer and simpler.

It was common for participants in this category to rank confidence in their technical abilities as average to low, while also having no experience with online education. This combination can make it difficult for prospective online students to navigate the online learning environment, as noted by another participant:

On day one, I went in for the introduction and had a difficult time trying to figure out where to go, even though I had some direction. Then day two, when I went in, it was a little bit more familiar. I was able to get to the introduction, and then I was able to do the first and second tasks. I think once you figure out where things are and how to get in there, you're fine. I went in mostly every day.

Inexperienced participants in this group logged in frequently and spent more time in the event than other participants. They utilized the resources and personnel available to help them acclimate to the environment and also noted completing the modules, submitting the assignments, and engaging in conversations through the discussion boards. The more time these participants spent navigating the environment and taking part in the event, the more confidence they gained.

RQ3 summary and discussion. In summation, the data extracted from the survey combined with the in-depth interview testimonies revealed two different groups of participants that exhibited seemingly opposite behaviors over the course of the research study process. The categories these groups are placed into are based on their experience levels with online education and how they behaved while participating in the Test Drive. The emergence of these themes is significant because it validates the importance of prospective online student exposure to the online learning environment regardless of the amount of experience they may have with online education. It also identifies the two types of learners entering the Test Drive and what features of the virtual event cater to their specific needs.

The participants in the first group, “experienced, stealth learners,” had some kind of experience with online education, whether through previous exposure to an online learning environment or experience with online courses. The participants also exhibited behaviors similar to stealth applicants. According to Dupaul and Harris (2012), stealth applicants, also referred to as “secret shoppers,” are anonymous searchers who conduct their college searches outside the universities’ awareness. Dupaul and Harris (2012) noted that stealth applicants do not gather information through traditional channels, like attending on- or off-campus recruitment events, submitting requests for information, or speaking with admissions counselors. Within the context of this research study, the identified group of stealth learners simply wanted to preview the online learning environment through the simulated online learning experience without speaking with other prospective online students or university ambassadors, or participating in any of the event’s activities. This group of participants also commonly noted during their in-depth interviews a comparison of the Test Drive’s online learning environment to others that they had previously been exposed to.

The participants in the second group, “inexperienced, persistent learners,” had little to no experience with online education and had a common struggle with acclimating to the online learning environment. Although most of the participants in this group noted having trouble logging into the Test Drive and navigating the environment, they were also the participants that most heavily participated in the virtual event. They posted in the discussion boards, answered poll questions and took quizzes, and submitted the mock assignment for a grade. Through heavy participation and practice with navigating the environment, these participants persisted through their initial technological struggles and reported building confidence in their online learning abilities, which ultimately resulted in a positive learning experience.

Limitations

Although the present research study employs qualitative methodologies that create a portrait illustrating complex processes and experiences, the results do not provide insights that can be generalized to the general public (Rubin & Rubin, 2011). The small sample size of survey and in-depth interview data can only be representative of the participants in the research study. The following addresses the limitations of this study that were discovered throughout the research process.

In addition to limitations due to the research study's methodologies, the study's participant demographics did not represent the general online learner population. According to the data collected from the research study, 95% of participants were female, with 65% interested in graduate level degrees, 20% interested in undergraduate level degrees, and 15% interested in certificate programs. This is a poor representation compared to the general online learner population, which breaks down to 56% female, with nearly three times as many students enrolled in undergraduate programs as graduate programs (Best Colleges, 2015; Allen & Seaman, 2016).

The research study process also presented limitations that impeded researchers' efforts to effectively collect data from the study's participants. During the first step of the research study process, researchers should have incorporated a survey question asking participants at which stage of the application process they were in. This question could have produced valuable information for the researchers to analyze the participants' thought process when pursuing an online degree program. Answers to this question could have also disqualified participants early on in the research process that had already enrolled as students. Two participants were disqualified from the study after learning during their in-depth interviews that they had already been accepted and enrolled into their online program of interest.

Additionally, participants should have been interviewed no later than five days after completion of the Test Drive. The in-depth interviews should have also been scheduled during the recruitment process, with reminder emails sent to participants during and after the virtual event. Many of the participants were interviewed one to two weeks after the conclusion of the Test Drive and could not recall specific, important details about their experiences.

Researchers also should have manually provided Test Drive login credentials to all research study participants to ensure they had the necessary information to log in at the start of the virtual event. The May Test Drive experienced technical difficulties with automated login credential emailing, and many registered participants did not receive their credentials to enter the event. Test Drive administrators were not made aware of this issue until halfway through the week-long event, thus irritating many of the registrants and making the online learning environment less active for participants who were able to log in at the start of the event.

Lastly, since Drexel University was the only academic institution used in this study for the purpose of collecting information from their simulated online learning event, results cannot be generalized to all academic institutions providing online education. Drexel University is a private not-for-profit institution, which makes up only 22% of all enrolled students taking exclusively online courses (Allen & Seaman, 2016).

Implications for Future Research

This study may be one of few that examine the perceptions, attitudes, and behaviors of prospective online students before and after participating in a simulated online learning event. By analyzing these factors, researchers may have a more comprehensive understanding of how early exposure to an online learning environment affects prospective student perceptions of online education and influences their decision to pursue a degree program online. The insights extracted

from this research study create a basis for understanding prospective student behaviors before and after a simulated online learning event. Future research should analyze their behaviors within the simulation compared to their verbal testimonial reflecting on the virtual event after its conclusion. Researchers should also explore conducting a longitudinal study to examine if participation in a simulated online learning event influences student enrollment all the way through online degree completion.

This research study conducted in-depth interviews with participants asking them to reflect on their time within the Test Drive. Specifically, it asked participants to recall what behaviors they exhibited in the online learning environment. Future research should compare their verbal recollection with their actual behavioral patterns in the simulation. Many research studies have analyzed the structure of the online learning environment and student activity patterns through data collected in the learning management system (LMS) (Liu et al., 2010; Hung & Zhang, 2008). However, few have analyzed activity patterns of prospective online students in the LMS and how the experience influences their decision to complete an online degree program. By adding this extra layer of data, researchers could have a more detailed understanding of how participants navigate the environment, what elements they engage with, and what features make the most impact on their perceptions, attitudes, and behaviors toward online education.

Additional research should be conducted to follow participants through the entirety of their academic journeys. While this research study analyzed how prospective online student perceptions, attitudes, and behaviors were influenced after completing the Test Drive, future research should examine how participation in a simulated online learning event influences prospective students to apply, enroll and complete an online degree program. Longitudinal

studies, such as the one conducted by Bachman and O'Malley (1977), have examined over a long period of time what factors throughout students' academic journeys led to educational attainment. Bachman and O'Malley analyzed the relationship between self-esteem, educational attainment, and occupational status of their research participants over the course of eight years.

Future research should employ a similar model to Bachman and O'Malley (1977) that analyzes the relationship between experience with online education, participation in a simulated online learning experience, and online degree attainment. Researchers should examine how participation in a simulated online learning event prior to enrollment in an online degree program influences prospective students' decision to apply and their enrollment, retention, and completion rates. The study could contain two cohorts, including an experimental group, which is exposed to the simulated online learning experience, and a control group, which receives no exposure. Each cohort could have multiple variables, including research participants with experience with online education and participants with little to no experience. Outcomes from this longitudinal study could examine how early exposure to the online learning environment prior to enrollment influences online student behavior in their first term and persistence throughout their entire degree program, including analyzing instances of stop-out.

Conclusion

In summation, this research study sought to examine how participation in a simulated online learning experience influenced prospective student perceptions, attitudes, and behaviors toward online education and if it affected their decision-making process to pursue a degree program online. The study found that prior experience with online education and technology played a major role in how research participants experienced the online learning event. It also found that exposure to the online learning environment provided participants with a more comprehensive understanding of the online student experience that assisted them in their decision on whether to pursue an online degree program. Further research is needed to examine if prospective student participation in a simulated online learning event influences online degree program application, enrollment and completion rates. Early exposure to the online learning environment could help build self-efficacy in prospective students, thus improving the online learning experience and increasing the likeliness of degree attainment.

Appendix A

Drexel University Online Test Drive Webpage and Registration Form

If you're looking to attend college online but want to know more about the online learning experience before you make an investment, register for [Drexel University's Online Test Drive](#). The Test Drive gives you the opportunity to try out Drexel's digital learning environment before you apply, at no cost to you. The next Test Drive begins on July 17, 2017.

Here's what you can look forward to in the Test Drive virtual event:

- Experience what it's like to study online at Drexel
- Submit a sample assignment
- Participate in discussion threads and collaborate with fellow Test Drive participants
- Learn how to use campus resources online, like career services and the digital library
- Interact with our Drexel Ambassadors, including faculty, staff, alumni and current students

By gaining confidence in the online classroom, you'll be able to decide whether studying online at Drexel is the right fit for your educational goals. The Test Drive is available 24/7, starting at 12 p.m. EST on [date] through 3 p.m. EST on [date]. Registration will close on [date].

The Test Drive is recruiting participants for a Johns Hopkins University research study to voluntarily share their thoughts on the Test Drive event and online education. The goal of the research study is to measure attitudes, behaviors, and perceptions of online education before, during and after participating in the Test Drive. Participants will receive compensation for their participation in the study.

To learn more about participating in the Johns Hopkins University study, "Test Drive Online Education: How a Simulated Online Learning Experience Influences Prospective Student Perceptions, Attitudes, and Behaviors," indicate your interest in the Test Drive registration form below. A representative will contact you with more information about that study.

First Name
[text field]

Last Name
[text field]

Email
[text field]

Phone Number
[text field]

City

[text field]

State

[drop-down field]

US Zip Code or APO

[text field]

Country

[text field]

Program

[drop-down field]

Term of Interest

[drop-down field]

Partner Organization (If your employer has a partnership with Drexel Online, please list it here.)

[text field]

Military Status

[drop-down field]

Interest in participating in Test Drive research study

[YES/NO field]

[] I agree to Drexel Online's Consent Policy

[SUBMIT]

Appendix B

Participant Recruitment Email

SUBJECT LINE: Test Drive Research Study
FROM: vbermud1@jhmi.edu

Dear [Name],

My name is Vivianna Bermudez and I am the strategic communications manager at Drexel University Online. I am completing my Master's degree at Johns Hopkins University, and as part of my thesis I am conducting the research study, "Test Drive Online Education: How a Simulated Online Learning Experience Influences Prospective Student Perceptions, Attitudes, and Behaviors". Together with my thesis advisor and primary investigator, Taylor Hahn, Ph.D., we will investigate whether prospective student participation in the Test Drive event influences perceptions, attitudes, and behaviors toward online education.

From the insights extracted from this research study, we hope to gain a better understanding of prospective online student behavior in order to improve the Test Drive and provide event attendees with a comprehensive simulated online learning experience. Participants in the research study will be asked to complete three tasks:

1. fill out a short survey questionnaire to gauge online learning experience,
2. participate in the five-day long Test Drive event,
3. and take part in an in-depth interview.

Participants are expected to dedicate an average of 90 minutes to the research study. Participants who complete the research study process will receive a \$30.00 Amazon gift card.

You are receiving this email because you have indicated your interest in participating in the research study. In order to be eligible to participate, you must meet the following criteria:

- be 18 years or older;
- not currently enrolled as a student at Drexel University;
- have access to a computer and Internet.

In addition to this email, a consent form for the research study has been sent in a separate email. If you are interested in participating and meet the qualification criteria listed above, please read, sign and submit the form by [date].

Participation in this study is voluntary. You are not obligated to respond if you are not interested in participating.

Thank you for your time and consideration. Please email me with any questions or comments you may have. I look forward to hearing from you!

Sincerely,
Vivianna Bermudez
Johns Hopkins University
M.A. in Communications

Drexel University Online
Communications Manager

Email: vbermud1@jhmi.edu
Phone: 240-409-5181
[LinkedIn](#)

Appendix C

Johns Hopkins University Homewood Institutional Review Board (HIRB)

Informed Consent Form

Title:	Test Drive Online Education: How a Simulated Online Learning Experience Influences Prospective Student Perceptions, Attitudes, and Behaviors
Principal Investigator:	Taylor Hahn, Ph.D., Johns Hopkins University, M.A. in Communication, Assistant Program Director
Date:	[date]

PURPOSE OF RESEARCH STUDY:

The purpose of this research study is to gauge and measure perceptions, attitudes, and behaviors of prospective online students before, during, and after the Test Drive event to determine the effects on perceptions of online education and identify factors that influence the decision making process to apply for an online degree program.

We anticipate that approximately 20 people will participate in this study.

PROCEDURES:

Research study participants will be asked to complete three tasks: fill out a survey questionnaire, participate in the simulated online learning event (Test Drive), and take part in an in-depth interview. Participants are expected to dedicate an average of 90 minutes to the research study.

The survey questionnaire will be administered prior to entering the Test Drive event and will take approximately 5 to 10 minutes to complete. The questionnaire will gauge your online learning experience, perceptions of online education, and expectations for the Test Drive event.

After the survey has been completed and you have been provided with your unique login and password, you may enter the Test Drive and start participating when the event has officially begun. The Test Drive is a five-day long event that begins on Monday at 12:00 p.m. EST and concludes on the following Friday at 3:00 p.m. EST. The Test Drive is open twenty-four hours per day, and participants can spend as much or as little time as they would like in the event. To get the full experience of being an online student at Drexel University, it is strongly recommended that you log in each day for about 10 to 15 minutes to master navigating the online learning environment; learn about Drexel University and the support services provided to online students; participate in quizzes, polls and submit an optional assignment (Drexel's Digital Scavenger Hunt); gain exclusive access to information about your program of interest; and interact with Drexel Ambassadors and fellow Test Drive participants. As part of the research study, your participation in the Test Drive will be monitored.

Once the Test Drive event has concluded, a follow up in-depth interview will be scheduled, based on your availability, and conducted over the phone. The interview will last approximately 20 to 30 minutes and will take place over a secure conference line using FreeConference.com. The participant will be asked permission to record their in-depth interview session. The student investigator will ask each participant about their experience in the Test Drive event and their perceptions of online education after completing the simulated online learning experience.

RISKS/DISCOMFORTS:

The risks associated with participation in this study are no greater than those encountered in daily life. To minimize risks even further, all data and final results will not be attributable to participants.

BENEFITS:

There are no direct benefits to you from participating in this study. This study may benefit society if the results lead to a better understanding of prospective online student behaviors.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:

Your participation in this study is entirely voluntary: You choose whether to participate. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled.

If you choose to participate in the study, you can stop your participation at any time, without any penalty or loss of benefits. If you want to withdraw from the study, please contact Vivianna Bermudez, the student investigator, at vbermud1@jhmi.edu or 240-409-5181.

CIRCUMSTANCES THAT COULD LEAD US TO END YOUR PARTICIPATION:

Under certain circumstances we may decide to end your participation before you have completed the study. Specifically, we may stop your participation if you appear uncomfortable during the in-depth interview. There may also be other circumstances that would lead us to end your participation.

CONFIDENTIALITY:

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

All data collected from the survey questionnaire, Test Drive event and in-depth interview will remain confidential and anonymous. All project files will use code numbers rather than participants' names. The primary investigator and student investigator will be the only persons who will have access to the separate file that links participants to their assigned code. All interviews will be audio recorded. All project files will be stored in a locked file cabinet or in

password-protected files on the investigator's personal computer. Comments obtained through the survey, Test Drive and interview will never be attributed to any individual participants. All study results will be written in aggregate form to ensure individual anonymity.

COMPENSATION:

If you satisfactorily complete the study, you will receive a \$30.00 Amazon gift card to compensate you for your participation. Payments will be sent to you electronically to the email address you provide at the end of the study.

IF YOU HAVE QUESTIONS OR CONCERNS:

You can ask questions about this research study now or at any time during the study, by talking to the researcher working with you or by contacting Vivianna Bermudez, the student investigator, at vbermud1@jhmi.edu or 240-409-5181.

If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

SIGNATURES

WHAT YOUR SIGNATURE MEANS:

Your signature below means that you understand the information in this consent form.

Your signature also means that you agree to participate in the study.

By signing this consent form, you have not waived any legal rights you otherwise would have as a participant in a research study.

Participant's Signature

Date

Signature of Person Obtaining Consent
(Investigator or HIRB Approved Designee)

Date

Appendix D

Online Student Experience Survey

Qualtrics Survey: https://drexel.qualtrics.com/SE/?SID=SV_8AEH5mnkqQLHGGp

1. First Name
[Text Field]
2. Last Name
[Text Field]
3. Have you taken an online course before?
 - Yes
 - No
4. How many online courses have you taken?
 - 1-3
 - 4-7
 - 7+
5. Have you had experience using Blackboard Learn?
 - Yes
 - No
 - I'm not sure
6. When was the last time you accessed Blackboard Learn?
 - Less than two years ago
 - More than two years ago
 - I'm not sure
7. How would you rate your perception of online education?
 - Positive
 - Somewhat positive
 - Neutral
 - Somewhat negative
 - Negative
8. How likely are you to take a course online rather than in-person?
 - Very likely
 - Somewhat likely
 - Neutral
 - Somewhat unlikely
 - Very unlikely

9. How likely are you to complete a degree entirely online rather than in-person?
- Very likely
 - Somewhat likely
 - Neutral
 - Somewhat unlikely
 - Very unlikely
10. How likely are you to recommend taking an online course to another individual?
- Very likely
 - Somewhat likely
 - Neutral
 - Somewhat unlikely
 - Very unlikely
11. Rate yourself on...
- [this question has a 1 through 5 rating scale; 1=low confidence; 5=high confidence]*
- Tech savviness
 - Self-started capabilities
 - Ability to work independently
 - Knowledge about your program of interest
 - Experience with your program of interest
12. Arrange the following factors in order of consideration during the decision making process to return to university.
- [this question has a drag and drop feature]*
- University
 - Format (online vs. in-person)
 - Program of interest
 - Cost
 - Reputation
13. How do you feel going into the Test Drive event?
- [select all that apply]*
- Curious
 - Excited
 - Nervous
 - Anxious
 - Neutral
 - Other:
14. How much time do you plan to spend in the Test Drive event?
- A great deal
 - A lot
 - A moderate amount
 - A little

- None at all

15. What are you hoping to get out of the Test Drive event?

[select all that apply]

- Explore the online learning environment
- Learn about the online course format
- Learn about Drexel University
- Explore the online student experience
- Learn about online student resources
- Chat directly with Drexel Ambassadors
- Chat directly with other prospective students
- Other:

16. How did you learn about the Test Drive?

- Word of mouth
- Website
- Email message
- Social media
- Other:

17. Please indicate your gender.

- Male
- Female
- Prefer not to answer

18. Which range includes your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or older
- Prefer not to answer

Appendix E

In-depth Interview Investigator Guide

Title: Test Drive Online Education: How a Simulated Online Learning Experience Influences Prospective Student Perceptions, Attitudes, and Behaviors

Student Investigator: Vivianna Bermudez, MA in Communication Program, Johns Hopkins University

Date: [Date]

Welcome Participants

Welcome to the interview portion of my research study. I appreciate your willingness to take the time to participate. My name is Vivianna Bermudez and I will be your interviewer. As you may already know, I am currently part of the MA in Communications program at Johns Hopkins University and am conducting this research study as part of my thesis.

At this point in the research process, you should have completed the Online Student Experience Survey questionnaire and concluded the week-long Test Drive event. This interview is the third and final portion of your participation in the research study.

My goal with this research is to gauge and measure the attitudes, behaviors, and perceptions of prospective online students before, during and after the Test Drive event and identify how they influence the next steps of the application process. From the insights extracted from these in-depth interviews, my hope is that the information will assist academic institutions in preparing online students to be successful in their academic careers and crafting communications that cater specifically to the needs of online students.

You have been asked to participate in this interview process because you participated in the Test Drive event. This will be the focus of our interview today.

Ground Rules

We will talk for approximately 15 to 20 minutes, during which time I will ask you several questions.

Everything that is said here is confidential and neither you nor I should repeat any personal information when outside of this conference space. I would like to, with your permission, record the session so when summarizing the interview, I can be sure I have your statements recorded as accurately as possible. No one will listen to the recording except for myself, the interviewer. I will erase the recording as soon as I have completed a written summary of the interview. If you are comfortable with being recorded, I will turn it on when I start asking questions.

There are no right or wrong answers to the questions, only opinions.

As interviewer, my role is to listen to your opinions and ideas and record them as accurately as possible. Sometimes I will ask you follow-up questions so I can make sure that I understand what you have said, or I may ask that you provide a specific example.

Confidentiality

As I mentioned, you may be assured of complete confidentiality. Everything you say is confidential and no one's name will be listed with any written summaries of the discussion.

Unless you have any questions or comments, we will start the recording and begin the question section of the in-depth interview.

Opening Question

1. To begin, could you please introduce yourself, where you currently reside, and what your online program of interest is?

Introductory Question

2. Please describe your overall experience in the Test Drive event.

Possible prompts: How did you go about navigating Blackboard Learn?

Can you give me an example of how you participated in the event?

If there were any, can you give me an example of something within the Test Drive that you found to be confusing or unclear?

Main Questions

3. What features of the Test Drive did you explore?

Possible prompts: What about the daily modules?

What about the discussion board?

What about the assignment?

What about the resources?

What about the application feature?

4. What is your opinion of the online learning experience in the Test Drive?

5. After participating in the Test Drive, how do you feel about pursuing a degree online?

Possible prompts: How does testing the online learning experience influence your decision to pursue a degree online?

6. What are your perceptions of online education after participating in the Test Drive?

Possible prompts: How would you describe online learning to a family member or friend?

How would you describe the online learning environment to a family member or friend?

How would you describe the Test Drive event to a family member or friend?

Ending Question

7. Is there anything you would like to add, or you think would be helpful for me to know?

After the In-Depth Interview

Thank you for participating in this interview today. Your responses will be summarized along with those of other in-depth interviews. The results of the research study will be shared with members of the MA in Communications program at Johns Hopkins University.

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Curriculum Vitae

Vivianna Bermudez was born in Atlanta, Georgia and grew up in the suburbs of Washington D.C. She received her bachelor of science in fashion merchandising from the University of Delaware in 2011 and spent the first few years of her career as a graphic designer in the University of Delaware Office of Communications and Marketing. Shortly after becoming a graphic artist for the Johns Hopkins University School of Medicine, she joined the Johns Hopkins University master of arts in communication program in 2014. She was then recruited by the Drexel University Online Strategic Communications team in 2015, where she currently serves as a Communications Manager specializing in the creation of original visual content for Drexel University's online student population, and where she completed her Master's thesis research. Vivianna currently resides in Philadelphia, Pennsylvania.