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An Investigation of the Relationship Between Face-to-Face Orientations, Instructor Verbal Immediacy Behaviors, and Persistence in Online Courses

Donald Painter, Jr.
University of South Florida, mrdonald@me.com

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An Investigation of the Relationship Between Face-to-Face Orientations, Instructor Verbal Immediacy Behaviors, and Persistence in Online Courses

by

Donald Painter, Jr.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Curriculum and Instruction with an emphasis in Higher Education Administration Department of Leadership, Counseling, Adult, Career, and Higher Education College of Education University of South Florida

Co-Major Professor: Kathleen P. King, Ed.D.
Co-Major Professor: William H. Young III, Ed.D.
Edward Fletcher, Ph.D.
Thomas Miller, Ed.D.

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Keywords: distance learning, instructional communication, retention, correlation, linear regression, logistic regression

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Dedication

This dissertation is dedicated to the loving memory of my mother, Susan C. Painter, R.N. She was an exemplar of what it means to be a mother, a Christian, and a human being. The successes I have achieved in my life are a direct result of her unconditional love.

This dissertation is further dedicated to the loving memory of my first love, Randall Hicks. While you left this world far too soon, I am a stronger person for having known you. You will always be my Superman.
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college administrator should be and I’m fortunate to work for and learn from him. I am also humbled by the support my faculty have given me during this process. Their kind words of encouragement kept me moving forward. Several of them even provided me with helpful resources to assist in my research and writing.

Lastly, I want to acknowledge and address someone who is currently too young to read or understand the words on this page. To my niece Cora, I hope that you learn from me the importance of working hard and finishing what you start, no matter how difficult or challenging the endeavor becomes. Working hard is the only way to achieve your dreams. I hope that you learn from me the value of education and that you strive to become educated, speak out, and make a positive difference in the world. I also hope that you never tell me to stop calling you princess.
# Table of Contents

List of Tables ........................................................................................................ iv  
List of Figures .......................................................................................................... v  
Abstract ..................................................................................................................... vi  

Chapter One: Introduction ....................................................................................... 1  
  Introduction to the Problem ................................................................................. 1  
  Statement of the Problem ..................................................................................... 9  
  Purpose of the Study ............................................................................................ 10  
  Research Questions .............................................................................................. 11  
  Theoretical Framework ......................................................................................... 11  
  Significance of the Study ..................................................................................... 13  
  Importance of the Study to the Researcher ......................................................... 14  
  Definition of Terms .............................................................................................. 15  
  Limitations and Delimitations .............................................................................. 17  
  Summary ............................................................................................................... 19  

Chapter Two: Review of Related Literature .......................................................... 20  
  Introduction .......................................................................................................... 20  
  Persistence in Online Learning ............................................................................. 20  
    Compared to face-to-face .................................................................................. 21  
    Predicting online student attrition .................................................................... 24  
      Demographic characteristics ......................................................................... 24  
      Grade point average ...................................................................................... 26  
      Prior completion of online courses ............................................................... 26  
      Computer literacy skills ............................................................................... 27  
      Measures of learner autonomy ..................................................................... 28  
      Summary ........................................................................................................ 29  
  Reasons for withdrawal ....................................................................................... 30  
    Expectation and experience mismatch ............................................................. 31  
    Low satisfaction ............................................................................................... 33  
    Lack of interaction ............................................................................................ 34  
    Technology issues ............................................................................................ 35  
    Personal issues ................................................................................................ 36  
    Summary ........................................................................................................... 36  
  Lack of interventions ............................................................................................ 37  
  Orientations ......................................................................................................... 38
Verbal immediacy and student satisfaction ..............................................................121
Student demographics, GPA, and persistence ....................................................124
Implications for Practice ........................................................................................126
Limitations ..............................................................................................................129
Recommendations for Future Research .................................................................132
Summary ................................................................................................................134

References ..............................................................................................................137

Appendices .............................................................................................................151
  Appendix A: IRB Approval Letters ....................................................................152
  Appendix B: Sample Faculty Study Participation E-mail ................................155
  Appendix C: Sample Student Orientation Invitation E-mail ..........................156
  Appendix D: Orientation Session Outline .........................................................157
  Appendix E: Sample Student Survey Participation E-mail ..............................158
  Appendix F: Original Verbal Immediacy Scale ................................................159
  Appendix G: Modified Verbal Immediacy Scale ..............................................161
  Appendix H: Original Student Perception of Instruction Survey ....................162
  Appendix I: Modified Student Perception of Instruction Survey ....................163
List of Tables

Table 1: Summary of Studies Examining Characteristics and Predictors .........................30
Table 2: Summary of Studies Examining Reasons for Student Withdrawal ....................37
Table 3: Alignment of Research Questions to Data Collected .........................................77
Table 4: Alignment of Variables to Data Collected ..........................................................79
Table 5: Alignment of Research Questions to Data Analysis Methods .............................81
Table 6: Estimated Dissertation Timeline ........................................................................82
Table 7: Orientation Session Attendance ..........................................................................86
Table 8: Observed and Expected Frequencies from Chi-Square Analysis .......................87
Table 9: Descriptive Statistics for Verbal Immediacy Scale Items ....................................89
Table 10: Verbal Immediacy Scores and Class Persistence Rates .....................................90
Table 11: Descriptive Statistics for Student Perception of Instruction Items ....................93
Table 12: Verbal Immediacy Scores and Student Satisfaction Scores ...............................94
Table 13: Descriptive Statistics for Orientation Satisfaction ...........................................96
Table 14: Response Frequencies for Open-Ended Question One ...................................98
Table 15: Response Frequencies for Open-Ended Question Two ....................................99
Table 16: Response Frequencies for Open-Ended Question Three .................................100
Table 17: Response Frequencies for Open-Ended Question Four ....................................101
Table 18: Descriptive Statistics for Student Demographics And GPA .........................102
Table 19: Regression Coefficients for Independent Variables .......................................103
List of Figures

Figure 1: Timeline of Key Developments in Immediacy Research.........................64
Figure 2: Scatterplot of Verbal Immediacy Score and Persistence .........................91
Figure 3: Scatterplot of Verbal Immediacy Score and Student Satisfaction ...............95
Figure 4: Information Needed for Successful Online Course Completion ...............115
Abstract

The persistence rate in online classes remains significantly lower than in comparable face-to-face classes. There is a lack of research on strategies to help learners persist in online classes. The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and persistence in online classes. It also explored the relationship between verbal immediacy and student satisfaction. Due to the disagreement in the literature, this study also investigated the relationship between student demographic variables, grade point average, and persistence.

This quantitative study combined both causal-comparative and correlational research methods. The study took place at a community college in the southeastern United States. The participants were 171 students enrolled in online classes selected for inclusion in the study using a purposive sampling method. Students were invited to attend a face-to-face orientation prior to the start of the semester. Prior to the end of the course, students were invited to complete a survey consisting of modified versions of Gorham’s (1988) Verbal Immediacy Scale and the college’s Student Perception of Instruction survey. At the end of the semester, demographic and course completion data were collected from the college’s student information system.

A chi-square analysis revealed that there was not a significant relationship between orientation attendance and persistence. A Pearson correlation analysis and a
linear regression analysis revealed that there was not a significant relationship between instructor verbal immediacy and persistence. A second linear regression analysis revealed a significant relationship between verbal immediacy and student satisfaction. Perceived instructor verbal immediacy explained 33% of the variance in satisfaction. A logistic regression analysis found that while GPA was a significant predictor of persistence, age, gender, and race/ethnicity were not.

The results of this study suggest that online faculty should receive training on communication strategies, such as verbal immediacy behaviors. Colleges should also consider using predictor variables, such as GPA, to identify and assist at-risk students. This study was one of the first to examine the relationship between verbal immediacy and persistence in online classes. Future research should continue to investigate this topic as well as other strategies to help students persist.
Chapter One:
Introduction

Introduction to the Problem

Over the past decade and a half, the number of higher education courses offered in the fully online format has increased dramatically. According to Allen and Seaman (2014), in the fall of 2003 approximately 1.97 million students were taking at least one online course. This represented a 23% increase over the previous year and far exceeded the 1.8% increase in overall higher education enrollment (Allen & Seaman, 2014). By the fall of 2012 the number of students taking at least one online course had risen to approximately 7.13 million (Allen & Seaman, 2014). This represented a 6.1% increase over the previous year and again exceeded overall enrollment growth of 1.2% (Allen & Seaman, 2014). While the growth rate of online education does appear to be slowing in recent years, it has exceeded that of higher education as a whole since the early 2000s (Allen & Seaman, 2014, 2015).

Online learning has become an important part of higher education. Enrollment in online classes represents approximately 34% of total higher education enrollment (Allen & Seaman, 2014). Institutions are not only expanding the number of courses, but are also making full degree programs available in the online format. In 2002 approximately 35% of colleges and universities reported having fully online programs (Allen &
Seaman, 2013). By 2012 this number had risen to approximately 63% (Allen & Seaman, 2014). Further, in a survey of over 2800 chief academic officers, approximately 71% identified online education as being critical to their institution’s long-term strategic plan (Allen & Seaman, 2015). Online courses allow colleges and universities to reach populations that are traditionally underserved due to time and geographic constraints (Dupin-Bryant, 2004). Similarly, online courses provide increased marketing power for institutions and facilitate the expansion of their service areas (LaRose & Whitten, 2000; Manhas, 2012). They also allow institutions to meet demand caused by rising enrollments or to respond to shifts in local workforce needs in a quicker and more cost-effective manner than expanding physical facilities (Haber & Mills, 2008; Howell, Williams, & Lindsay, 2003).

The fast-paced growth and increased importance of online education has given rise to concerns about its quality and effectiveness (Seok, 2007; Willging & Johnson, 2009). At the institutional level, these concerns center on providing a quality experience for students and ensuring consistency across various offerings (Claus, 2006). Online education has expanded the reach of institutions well beyond their physical campuses and this has increased competition among them (Meyer, 2004). Institutions need to provide quality online offerings in order to remain competitive and prevent students from looking elsewhere (Carnevale, 2006). Further, colleges and universities are concerned with providing a quality product in order to protect their image and reputation (Cochran, Campbell, Baker, & Leeds, 2013).

Faculty have also expressed concerns. Some have doubts about the value and quality of online education (Leh & Jobin, 2003). Allen and Seaman (2015) found that
only 28% of chief academic officers believed that their faculty accepted the legitimacy of online education. This finding represented a decrease over results from the five prior years. Some faculty may question whether online classes can maintain the same level of rigor as face-to-face classes (Ciavarelli, 2003). Other faculty wonder if online education is appropriate for teaching complex concepts such as those requiring application and critical thinking (Ciavarelli, 2003).

Accreditors and governmental agencies are also interested in the quality of online offerings. In response to their concerns about the legitimacy of online courses and programs, regional accreditors have developed guidelines and best practices to promote quality (Seok, 2007). The federal government has expressed concerns about the academic integrity of online courses. As a result, the 2008 Higher Education Opportunity Act requires that institutions have systems in place to ensure that the person submitting work and participating in an online course is the same as the student who receives credit for completing it.

Part of the challenge in responding to these concerns is that there exists no universal definition of what constitutes quality in the online environment (Claus & Dooley, 2005; Garza-Mitchell, 2010). This fact is highlighted by the extremely varied nature of quality concerns expressed by the different stakeholders. Stella and Gnanam (2004) pointed out that there is “considerable dialogue” among faculty and administrators about what constitutes quality in online education and how best to measure it (p. 148). Inglis (2008) noted that several organizations have created benchmarks or frameworks to measure quality, but not enough work has been done to certify or validate them. Others have sought to measure quality by examining elements
of course design. This is often accomplished by checking for the presence of specific types of content or the use of certain tools in the learning management system (Garza-Mitchell, 2010). However, this approach ignores student success.

Another way to measure quality in online education is by examining quantifiable elements such as student outcomes (Garza-Mitchell, 2010; Meyer, 2004). Meyer (2004) argued that the advantage of focusing on student outcomes is that it moves the quality conversation away from traditional concepts such as seat time and debates about the effectiveness of various instructional tools and techniques. There is a considerable amount of research comparing outcomes in online and face-to-face classes. Russell’s (1999) frequently cited book, *The No Significant Difference Phenomenon*, examined a number of these studies. Russell reviewed 355 studies conducted from 1928 to 1998 that compared distance education courses to traditional, campus-based face-to-face courses (Meyer, 2002). He found no significant difference in measures of student learning and satisfaction between distance and face-to-face groups.

Russell’s (1999) review looked at studies that involved many different types of distance education, not just online courses. The few studies that did examine online courses were conducted on some of the very early ones. Online education has evolved greatly since this time. A more recent meta-analysis sponsored by the U.S. Department of Education examined the studies published since Russell’s review. Means, Toyama, Murphy, Bakia, and Jones (2010) conducted an extensive search of the published literature looking for empirical studies examining the effectiveness of online learning. Their search yielded literature published between 1996 and 2008 covering a variety of different learner populations. In order to narrow the results, they included only those
studies that were experimental or quasi-experimental, made at least one comparison between online or blended learning and face-to-face learning, and made use of some objective measure of learning. This resulted in 99 studies, of which 50 contained sufficient data to include in their meta-analysis. The researchers found that in terms of attainment of learning outcomes, students in online classes performed better than those in face-to-face classes.

The popular news media reported these findings as evidence of greatly improved quality in online education (Lamb, 2009). Glenn’s (2009) article in The Chronicle of Higher Education suggested that the study settled the quality debate and called for a shift in the type of research conducted on online classes. However, not everyone agreed with Means et al.’s (2010) conclusion. Jaggars and Bailey (2010) wrote an extensive critique of the research. They found that only 28 of the studies included in the meta-analysis examined fully online courses. The other studies involved hybrid courses, some of which included as much seat time as fully face-to-face classes. In addition, many of the studies in the meta-analysis involved coursework that was shorter than one semester in length, focused on non-academic subjects, and delivered to populations other than college or K-12 students. For example, some studies involved online lessons that were as short as 15 minutes and about topics such as searching the Internet. Jaggars and Bailey found that only seven studies included in Means et al.’s analysis involved semester-long online courses with undergraduate or graduate students.

One of Jaggars and Bailey’s (2010) biggest concerns about the research was the exclusion of one important measure of student success: persistence. The researchers found that of the seven studies involving college students in semester length courses,
only one mentioned withdrawal rates. In that study, online, face-to-face, and web-enhanced versions of an introductory computer science course were compared. No students withdrew from any version of the course. Jaggars and Bailey pointed out that this runs counter to the published literature as well as the experience of many instructors. The omission of withdrawal rates from these studies and Means et al.’s (2010) analysis is a significant concern (Jaggars & Bailey, 2010). It is critical to examine persistence rate when using student outcomes as a measure of online course quality (Nora & Snyder, 2009; Patterson & McFadden, 2009).

Comparing persistence rates in online courses to those in face-to-face courses reveals that there is indeed a significant difference. Carr (2000) suggested that attrition rates in online classes range from 10 to 20 percentage points higher than in face-to-face classes. Numerous scholars have made similar observations regarding online persistence rates (Harris, Larrier, & Castano-Bishop, 2011; Jenkins, 2012; Levy, 2007; Martinez, 2003; Moody, 2004; Nora & Snyder, 2009; Park & Choi, 2009; Rovai, 2002). Moody (2004) stated, “Although enrollment is relatively high, it is important to note that the attrition rate is higher in online courses” (p. 205). The results of numerous empirical research studies have confirmed this. Studies have been conducted involving community college students (Diaz, 2002; Parker, 2003), university students (Lynch, 2001), graduate students (Terry, 2001), an entire community college system (Tirrell & Quick, 2012), and across multiple academic years (Moore, Bartkovich, Fetzner, & Ison, 2003). They found that the withdrawal rate in online courses was significantly higher than in face-to-face courses. Online withdrawal rates ranged from five to thirty-five percentage points higher. This problem shows no sign of improvement as more recent
studies have achieved similar findings (Fetzner, 2013; Jaggars, Edgecombe, & Stacey, 2013; Patterson & McFadden, 2009). In addition, a recent survey of chief academic officers found that a greater percentage than ever before believe it is harder to retain online students (Allen & Seaman, 2015).

The reasons given by students for withdrawing from online classes differ from those given for face-to-face classes (Hart, 2012; Sutton & Nora, 2009). This difference is partly due to the fact that online classes serve a different population and those students tend to be older, non-traditional students (Doyle, 2009; Rovai, 2003; Street, 2011). Rovai (2002) argued that because of this, traditional models of student persistence fall short when examining online attrition.

Students give a variety of unique but interconnected reasons for dropping out of online classes. Some students enroll in an online class believing that it is an “easy A” only to find out that the course is more challenging than expected (Nash, 2005; Morgan & Tam, 2006). This leads to a mismatch between their expectations and the reality they experience in the course. Others may underestimate the time required to be successful in an online class (Packham, Jones, Miller, & Thomas, 2004). Students may not allow themselves enough time to complete coursework, tend to their work obligations, and handle family responsibilities (Perry, Boman, Care, Edwards, & Park, 2008).

Other students express concerns related to a lack of interaction with faculty members (Aragon & Johnson, 2008; Nash, 2005; Willging & Johnson, 2009). Bambara, Harbour, Gray, Davies, and Athey (2009) noted that online community college courses with the highest withdrawal rates lacked interaction and were often described by students as being “static” (p. 224). Lack of interaction with classmates is also a reason
given by students for failing to complete an online class (Muller, 2008). When students interact with classmates they overcome feelings of isolation and form a support network they can turn to for help (Ivankova & Stick, 2005).

While many believe that today’s student is highly computer proficient, students in online classes sometimes run into problems with technology that eventually lead them to withdraw from the course (Chyung, 2001; Muse, 2003; Willging & Johnson, 2009). Students may experience problems with the course learning management system or applications needed to complete coursework. Moody (2004) argued that many students overestimate their proficiency with computers and technology when deciding to enroll in an online course.

In recent years, many colleges and universities have placed increased emphasis on student success. However, much of their focus has been on traditional campus-based students (Nash, 2005). Further, there is a lack of research on strategies to help learners persist in the online environment (Kanuka & Jugdev, 2008). A few studies have demonstrated that orientation sessions may be an effective way to keep students from dropping out of online classes (Ali & Leeds, 2009; Clay, Rowland, & Packard, 2008; Hall, 2010; Wojciechowski & Palmer, 2005). Orientations have also been shown to increase student self-efficacy (Brewer & Yucedag-Ozcan, 2012), sense of belonging (Kanuka & Jugdev, 2008), and satisfaction (Pattison, 2003). Student response to orientations is generally positive and most students find them to be helpful (Abdulla, 2012; Jones, 2013). More research is needed to determine the relationship between orientations and student persistence.
Another potential strategy, which has emerged from research in the face-to-face classroom, is immediacy (Baker & Woods, 2004). Immediacy refers to verbal and nonverbal communication behaviors that reduce distance and increase psychological closeness between two people (Mehrabian, 1969). This is important in the online environment given the geographic distance between instructor and student. Some examples of how instructors might demonstrate verbal immediacy in an online class include addressing students by name in discussions, e-mails, and feedback; referring to the course as “our course” rather than “my course”; previewing tasks to be completed using “we will” rather than “you will”; providing individual feedback on assignments; using personal examples; and soliciting feedback from students about the course (Gorham, 1988; Melrose & Bergeron, 2006).

In the face-to-face classroom, instructor immediacy has been connected to increased cognitive learning (Kelly & Gorham, 1988), affective learning (Witt & Wheeless, 2001), and motivation (Christophel, 1990). A few studies conducted in online classes have achieved similar findings (Arbaugh, 2010; Baker, 2010; Hughes, 2014). While the results are promising, more research is needed on instructor immediacy in the online environment. Further, there is a lack of research exploring the relationship between immediacy and persistence in the online environment.

**Statement of the Problem**

The persistence rate in online classes remains significantly lower than in comparable face-to-face classes (Fetzner, 2013; Jaggars et al, 2013; Jenkins, 2012; Patterson & McFadden, 2009). There is currently a lack of research on viable strategies
to help learners persist in online classes (Gunter, 2007; Nash, 2005). Institutions are in need of practical strategies they can implement to keep online students from dropping out. Some studies have shown that orientations have a positive impact on the persistence rate in online courses (Ali & Leeds, 2009; Hall, 2010; Wojciechowski & Palmer, 2005). However, more research is needed on this topic. As attrition in online classes has been linked to student feelings of isolation, instructor immediacy behaviors may be a viable strategy. While much research has been done on immediacy as an instructional strategy, most of this has been conducted in the face-to-face classroom (Baker, 2004). Further, there is a significant lack of research examining the relationship between instructor immediacy and persistence in online classes.

**Purpose of the Study**

The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence in online courses. The study examined the relationship between student attendance at a face-to-face orientation session and successful completion of an online course. It also explored the relationship between student perception of instructor verbal immediacy and persistence as well as the relationship between student perception of instructor verbal immediacy and student satisfaction. The primary goal was to explore strategies that may help online learners successfully complete their classes. Due to the disagreement in the published literature, this study also investigated the relationship between persistence; the student demographic variables of age, gender, and race/ethnicity; and grade point average (GPA).
Research Questions

The following research questions guided this study:

1. What is the relationship between student attendance at a face-to-face orientation and persistence in online courses?

2. What is the relationship between student perception of instructor verbal immediacy and persistence in online courses?

3. What is the relationship between student perception of instructor verbal immediacy and satisfaction in online courses?

4. What is the relationship between student demographics (age, gender, race/ethnicity), student GPA, and persistence in online courses?

Theoretical Framework

Moore’s (1993) Transactional Distance Theory holds that the distance between student and instructor is a result of not only geographic separation, but also the environment and the behaviors of participants within the transaction of distance learning. In this view, distance is psychological in nature (Baker, 2010). This distance must be reduced or overcome in order for learning to occur (Shu-Fang & Aust, 2008). According to Moore, transactional distance is created by the interplay of instructor dialogue and program structure.

Instructor dialogue takes place in the interactions between instructors and their students (Moore, 1993). Moore (1993) argued that while dialogue and interaction are very similar, there is an important difference between the two. Interactions can be positive, negative, or neutral. On the other hand, dialogue refers to communication that
has positive qualities (Moore, 1993). Moore asserted that dialogue is constructive in nature, valued by both parties, and results in increased student understanding. Moore defined structure as “the extent to which an education programme can accommodate or be responsive to each individual learner’s needs” (p. 26). While delivery medium and course design have a significant impact on structure, it is relative to each individual student as the needs of learners vary greatly.

According to Moore (1993), when dialogue is high and structure is low, transactional distance is low. Conversely, when dialogue is low and structure is high, transactional distance is high. The importance of instructor dialogue in Moore’s theory cannot be minimized. That is, the importance of positive interactions that result in increased student understanding. Moore believed that even when course materials provide a high level of direction and guidance, the absence of instructor dialogue will lead students to make their own decisions about how to study course concepts and how and when to use course directions, if at all.

Instructor dialogue reduces transactional distance. Verbal immediacy behaviors are a way for instructors to convey liking and reduce psychological distance (Mehrabian, 1967). Orientations increase dialogue with students in that they result in greater student understanding of the expectations of online courses (Abdulla, 2012; Jones, 2013). Orientations also help students learn about course structure. For Moore (1993), structure was relative to a learner’s individual needs. Orientations provide students with information about the expectations of an online course and can help them determine if the online format best meets their needs (Ludwig-Hardman & Dunlap, 2003; Tomei, Hagle, Rineer, Mastandrea, & Scollon, 2009).
Significance of the Study

Student attrition has serious consequences. Insofar as student persistence is an outcome-based way to measure the quality of an institution’s online program, high attrition rates can be seen as an indicator of a low-quality or ineffective program (Holder, 2007; Moody, 2004; Tresman, 2002). In today’s competitive higher education marketplace, institutions must maintain high quality offerings to attract students and keep them from going elsewhere (Carnevale, 2006). Increasingly, data such as persistence rates are being made available to the public as a way to rate or compare institutions. For example, the U.S. Department of Education’s College Scorecard provides prospective students with a few key metrics about institutions, including graduation rate.

The student who withdraws also suffers consequences. They lose the time they invested into the course and the money spent on tuition and books (Cochran et al., 2013). Students may also lose confidence in their ability to finish their program of study (Cochran et al., 2013). Federal financial aid policies penalize students who withdraw from too many courses. Students can quickly lose their ability to receive aid that they may need in order to attend college.

Colleges and universities incur a financial penalty as a result of student attrition. Liu, Gomez, and Yen (2009) and Muse (2003) argued that student attrition results in lost revenue for the institution. If a student who drops out of an online course fails to re-enroll, the institution loses a considerable amount of tuition revenue. Further, Jenkins (2012) and Rovai (2003) noted that there has been a move toward performance-based funding for public institutions in many states. Managan (2015) noted that 30 states
currently distribute at least some funding to public institutions based on measures of performance, including persistence and graduation rates.

**Importance of the Study to the Researcher**

The researcher in this study serves as an academic administrator at a public community college. He frequently works with students who have dropped out of an online class and witnesses first-hand the negative consequences of attrition. He is interested in finding strategies to help students persist in their online classes. He also believes that institutions must do more to help students decide if online learning is right for them. One way to accomplish this is through the use of orientations. Orientations provide an overview of the academic and technical requirements of the online environment (Tomei, Hagle, Rineer, Mastandrea, & Scollon, 2009). When conducted prior to the start of a course, orientations can help students determine if an online course best suits their needs and they can switch to another format if they determine it does not (Fetzner, 2013).

Bambara et al (2009) argued that many faculty would benefit from training that promotes best practice in online education. The researcher agrees with this notion and believes that faculty professional development leads to increased student success. In addition, faculty frequently seek the researcher’s advice when students in their online courses are not successful. The researcher is interested in finding strategies that can help both students and faculty to be successful. He is particularly interested in immediacy as his academic background is in communication. Immediacy was originally
developed as an interpersonal communication theory and was eventually applied to the field of instructional communication (Bailie, 2012).

**Definition of Terms**

The following terms are used throughout this study.

**Attrition.** Attrition is the failure to successfully complete a plan of study, which can include a single course (Martinez, 2003). It occurs when a student withdraws after the official no-penalty drop period but before the end of the semester (Levy, 2007). In this study, attrition is when a student receives a final grade of F or W.

**Demographics.** Demographics refer to traits or characteristics of groups of individuals, such as a group of students. This study focused on the student demographic characteristics of age, race/ethnicity, and gender.

**Face-to-face class/course.** A face-to-face class is one that meets in a physical classroom for the majority of the course’s standard contact hours. It may or may not be enhanced with Internet resources.

**Immediacy.** Immediacy refers to communication behaviors that reduce distance and increase psychological closeness between two people (Mehrabian, 1969). Immediacy can be non-verbal or verbal. Non-verbal immediacy behaviors include the use of cues such as touching, distance, forward lean, eye contact, head and body orientation, movement, and facial expressions (Mehrabian, 1969). Verbal immediacy behaviors involve the use of language that seeks to minimize distance between communicators (Weiner & Mehrabian, 1968). The focus of this study was on verbal
immediacy. When the term immediacy is used in reference to this study, it refers exclusively to verbal immediacy.

**Online class/course.** An online class is one where at least 80% of the content is delivered via the Internet and no formal face-to-face meetings are required (Allen & Seaman, 2015).

**Orientation.** An orientation is a planned activity designed to introduce students to the systems, procedures, and expectations of a given educational experience, which can be a single course (Forrester, Motteram, Parkinson, & Slaouti, 2005). Orientations can be delivered face-to-face or at a distance (Scagnoli, 2001).

**Persistence.** Persistence is the opposite of attrition (Martinez, 2003) and is when a student successfully attends or participates until the end of the course and receives a grade of A, B, C, or D (Ali & Leeds, 2009). It is often used interchangeably with retention (Haydarov, Moxley, & Anderson, 2013). Persistence focuses on the student’s progress toward their goal of completion, while retention is an institutional measure (Hagedorn, 2006). The term persistence is used in this study as the primary goal was to find strategies to help students successfully complete online courses.

Persistence can be measured at both the student and course level. In this study, student persistence refers to whether or not a student successfully completed an online course in which they were enrolled. Course persistence rate refers to the percentage of enrolled students who successfully completed a specific online course.

**Student satisfaction.** Student satisfaction refers to student perceptions of the instructor and learning environment as well as the perceived value of an educational experience (Kuo, Walker, Belland, & Schroder, 2013).
Withdrawal. Withdrawal is when a student leaves a course prior to the end of the semester and incurs financial and academic penalties (Levy, 2007). Withdrawal results in the student receiving a final grade of F or W.

Limitations and Delimitations

This study was conducted at one campus of a medium-sized public community college in the southeastern United States. Classes were selected for inclusion in the study using a purposive sampling method based on attrition rates in a prior semester. Because of this, the demographic characteristics of students participating in the study were not representative of the larger population of online learners. Further, the course subjects as well as the teaching tools and methods used represented only a small fraction of those in the larger field of online education. Thus, the results cannot be generalized to other colleges or other types of institutions.

Due to the non-experimental nature of the study, the academic characteristics of the participating students were not controlled. This may have had an impact on persistence. Of specific interest are GPA and number of prior online courses successfully completed. Several studies have shown these variables to be significant predictors of successful online course completion (Cochran, Campbell, Baker, & Leeds, 2013; Dupin-Bryant, 2010; Harrell & Bower, 2011).

In addition, student attendance at the orientation sessions was very low. Only 11.7% of students enrolled in the classes selected for inclusion in the study attended an orientation session. The researcher was unable to require student attendance and as such participation was voluntary. The low attendance made it difficult to observe and
analyze differences in persistence between students who attended orientation and those who did not.

One of the delimitations of this study is that it was conducted during one of two terms during the summer semester. The summer terms are only six weeks in length and the shorter timeframe may have encouraged a higher course completion rate. Further, the college at which the study was conducted enrolls a significant number of transient students from selective state universities during the summer. These students typically have a higher GPA and perform better academically. GPA has been linked to successful online course completion in several studies (Cochran et al., 2013; Harrell & Bower, 2011). Conversely, a significant number of the college’s native students may have been ill prepared for academic coursework, as is typical of the community college student population (Hall, 2010). These students may have been less likely to successfully complete their coursework, regardless of the delivery method.

This study examined only fully online classes. It did not include hybrid or blended classes. Hybrid classes combine face-to-face instruction with online activities. In a hybrid course, there are fewer on-campus meetings than a fully face-to-face class and a significant portion of the course content is delivered via the Internet (Allen & Seaman, 2015). Hybrid classes were excluded from this study because they differ significantly from online classes in terms of design and student persistence.

This study examined the relationship between the student demographic variables of age, gender, and race/ethnicity as well as student GPA and persistence in online courses. It did not examine the relationship between persistence and prior completion of online courses. The college enrolls a significant number of transient students from other
state institutions during the summer. These students are not required to provide transcripts and as such their past academic histories were not known.

The study did not examine the relationship between persistence and other student characteristics including financial aid status, class standing, occupation, veteran status, disability status, citizenship, or enrollment status. In addition, the study did not explore the relationship between persistence and other variables discussed in the literature such as computer literacy, locus of control, self-efficacy, and time management skills. Measuring these variables would have required participants to complete additional instruments and could have decreased participation in the study due to the time required to complete the survey.

Summary

The rapid growth and increased importance of online education has led to concerns about its quality and effectiveness. One way to measure quality is by examining quantifiable outcomes, such as student persistence. The persistence rate in online classes remains significantly lower than in comparable face-to-face classes. Attrition has serious consequences for institutions and students. Colleges and universities currently lack effective strategies to keep students from dropping out as not enough research has been done on possible interventions. This study examined face-to-face orientations and instructor verbal immediacy behaviors as two possible ways to help students persist in online classes.
Chapter Two: Review of Related Literature

Introduction

The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence in online courses. Chapter One provided background for the study and explained the importance of finding interventions to keep learners from dropping out of their online coursework. This chapter serves to further reinforce this need and make a case for orientations and immediacy behaviors as a way to help online students persist. The chapter begins with a review of the literature related to persistence in online learning. It is followed by an examination of the use of orientations in distance and online education. The chapter closes by exploring verbal immediacy behaviors both as a communication concept and as an instructional strategy.

Persistence in Online Learning

Long before the advent of the Internet as a method to deliver instruction, educators and researchers were concerned with student persistence in distance education. Levy (2007) pointed to literature showing that the attrition rate in correspondence courses and other forms of distance education was as high as 60%. As
online courses grew in popularity, discussions related to persistence in distance education quickly began to focus on this delivery format. Carr (2000) is most frequently cited as being one of the first to raise this concern. She noted that attrition rates in online courses were, on average, 10 to 20 percentage points higher than in similar face-to-face courses. As online education continued to evolve, others also expressed concern over student persistence. They argued that while online courses were enrolling more students, they were also experiencing higher attrition rates than face-to-face courses (Martinez, 2003; Moody, 2004; Rovai, 2002; Terry, 2001). Moody (2004) best summarized the concern by stating, "Distance learners throughout the world are characterized by having a higher attrition rate than their campus-based counterparts" (p. 205).

**Compared to face-to-face.** The problem of persistence in online courses has been widely discussed, well documented, and persistent. Numerous studies have been conducted comparing persistence in online and face-to-face courses. These studies have been conducted at various institutions with diverse student populations covering a range of academic disciplines. The findings have been relatively consistent. Terry (2001) conducted a study to examine the persistence rate in an MBA program at West Texas A&M University. The program offered its courses in both online and face-to-face formats. He found that in 13 of the 15 courses the attrition rate was higher by as much as 30 percentage points in the online version. The findings were statistically significant.

In a study of 231 students taking an undergraduate health education course at a public community college in the western United States, Diaz (2002) found the withdrawal rate of online students to be 13.5% compared to 7.2% for face-to-face
students. Similarly, another study examining persistence in an unidentified course offered at a public community college in Arizona found that online sections had a 14% withdrawal rate compared to 5% in face-to-face sections (Parker, 2003).

More comprehensive studies have also reached similar conclusions. Tirrell and Quick (2012) found that the online withdrawal rate in the Virginia Community College System from 1998 to 1999 was 47%. This rate was compared to 15% for face-to-face courses. Moore, Bartkovich, Fetzner, and Ison (2003) examined six semesters worth of completion data for all courses offered at a large public community college in the Northeast. They found that the attrition rate in online courses was five to eight percentage points higher than in face-to-face courses. Lynch (2001) examined student performance data for students majoring in business administration, computer science, and MIS at a small, private university and found that dropout rates in online courses were as high as 50% compared to 14% in face-to-face courses.

Lynch (2001) cited the newness of online education and even lack of experience using the Internet as a potential cause of the problem in the early 2000s. Yet while familiarity with online courses and the Internet increased later in the decade, persistence rates did not. Researchers and practitioners were still finding that the attrition rate ranged from 10 to 20 percentage points higher in online courses (Garza-Mitchell, 2010; Levy, 2007; Patterson & McFadden, 2009; Schaffhauser, 2009). Patterson and McFadden (2009) examined programmatic persistence over a two-year period in master’s programs at a large research university in the Southeast. They found that the attrition rate in the online cohort of a communication sciences and disorders program was approximately 20 percentage points higher than the face-to-face cohort. In
a business program, the attrition rate in the online cohort was as much as 32 percentage points higher.

Well into the next decade, online courses have become nearly ubiquitous in higher education. Numerous advances have also been made in regards to Internet and computer technology. Given these phenomena one might hypothesize that online course attrition rates have fallen and are nearing equilibrium with face-to-face courses. However, the research simply does not support this notion. Researchers and practitioners continue to find that attrition rates remain higher in online courses by as much as 15 percentage points (Cochran, Campbell, Baker, & Leeds, 2013; Fetzner, 2013; Jenkins, 2012; Tutty & Ratliff, 2012).

Fetzner (2013) conducted a study at Monroe Community College in Rochester, New York and found that the persistence rate of students in online courses is 5 to 10 percentage points lower than in traditional face-to-face classes. The online attrition problem seems to hit community colleges particularly hard (Jenkins, 2012). In an examination of course completion data from community colleges in two states, Jaggars, Edgecombe, and Stacey (2013) found that the online withdrawal rate was higher than the face-to-face withdrawal rate by 13 percentage points in one state and 8 percentage points in another. They also analyzed persistence in gatekeeper courses and found that the withdrawal rate in online mathematics classes was 13 percentage points higher than in face-to-face classes. In English, the online withdrawal rate was 9 percentage points higher.

Persistence in online courses is a major concern of higher education administrators. In their annual survey of chief academic officers, Allen and Seaman
(2015) found that 44.6% of respondents believed that it was harder to retain students in online courses as compared to face-to-face courses (p. 24). This result represented a noticeable increase from when they first asked the question in 2004 and found that 27.2% of respondents believed it was harder to retain students online (Allen & Seaman, 2015). The problem of attrition in online courses is not going away and educators and administrators are increasingly concerned about this issue (Lee & Choi, 2013; Tutty & Ratliff, 2012).

**Predicting online student attrition.** One significant strand in the online persistence literature centers on identifying variables that can be used to predict the likelihood of a learner to drop out. The findings of these studies are mixed. There is no single variable that accurately predicts student persistence or attrition in all cases (Harrell & Bower, 2011). The most commonly examined variables include the demographic characteristics of age, gender, and race/ethnicity; grade point average (GPA); prior completion of online courses; computer literacy skills; and measures of learner autonomy. This section will provide a brief overview of the research on each of these variables. A summary table is presented at the end of the section.

**Demographic characteristics.** One might anticipate that younger students would fare better in the online learning environment due to their familiarity with technology. Some studies have supported this notion and have found that older students are more likely to drop out of online courses (Muse, 2003; Patterson & McFadden, 2009). However, Packham, Jones, Miller, and Thomas (2004) conducted a study involving an online program at a university in the United Kingdom and found that students in the 21-30 age group were as likely to drop out as those in the 51-60 age
group. However, they did not conduct a statistical analysis of their data. Other studies have found no link between age and persistence in online courses (Aragon & Johnson, 2008; Cheung & Kan, 2002; Cochran et al., 2013; Levy, 2007; Park & Choi, 2009; Tello, 2007).

Gender has also been thoroughly examined. Several studies have shown that gender is not a significant predictor of online course attrition (Kemp, 2010; Levy, 2007; Park & Choi, 2009; Tello, 2007). On the other hand, a few studies have found a connection. Aragon and Johnson (2008) found a small correlation between gender and persistence that showed females were more likely than males to complete an online course. The researchers argued that this is because females are in greater need of the flexibility that online learning provides due to family and other personal responsibilities. Thus, they may be more likely to persist in order to attain their educational goals. Cochran et al. (2013) found a relationship between gender and online persistence in the opposite direction. They found that males were more likely than females to complete their online course. However, the researchers noted that gender was the least significant variable of those included in their regression analysis.

Two additional studies conducted outside the United States also found a relationship between gender and persistence. Pierrakeas, Xeno, Panagiotakopoulos, and Vergidis (2004) found that males were more likely to drop out. Once again, the researchers did not conduct a statistical analysis of their data. Cheung and Kan (2002) observed that gender was significantly correlated to online course performance and found that women outperformed men. When considering these results, it is important to note the different cultural and gender role expectations in these countries.
Race/ethnicity has also been the subject of study. Aragon and Johnson (2008) and Cochran et al. (2013) found no significant relationship between race/ethnicity and online course completion. Patterson and McFadden (2009) examined enrollment data from two online master’s degree programs at a large research university. For one of the programs, a greater percentage of Black students withdrew than White students. They found a significant difference in dropouts by race/ethnicity when analyzing the data with a chi-square test. However, the researchers indicated that the power of the test was low given the small number of Blacks included in the sample.

**Grade point average.** Student grade point average appears to hold promise as a predictor of persistence in online courses. A number of studies have shown that the higher a student’s GPA, the more likely they are to successfully complete an online course (Aragon & Johnson, 2008; Cochran et al., 2013; Diaz, 2002; Dupin-Bryant, 2010; Harrell & Bower, 2011; Morris, Wu, & Finnegan, 2005; Muse, 2003). Conversely, Willging and Johnson (2009) found the opposite relationship. In a study involving dropouts from an online master’s degree program at the University of Illinois at Urbana-Champaign, they found that those who dropped out had a higher GPA than those who persisted. While their regression analysis showed the variable to be significant, further examination revealed it to be weak predictor. Levy (2007) found no significant relationship between GPA and course completion when examining online undergraduate and graduate courses.

**Prior completion of online courses.** When it comes to online courses, it appears that experience may matter. Several studies found that the more online courses a student completes, the more likely they are to successfully complete future
attempts (Cheung & Kan, 2002; Cochran et al. 2013; Dupin-Bryant, 2010). Harrell & Bower (2011) argued that lack of experience taking online courses would negatively impact a student’s success. Cheung and Kan (2002) found that the success rate of students in online courses increases substantially once students have successfully completed seven or more online courses. On the contrary, Kemp (2002) and Muse (2003) found that past experience with online courses was not significantly related to course completion.

**Computer literacy skills.** In order for students to access and successfully complete online courses they must be able to use a computer. One might predict that students with better computer skills will be more successful in online learning. A handful of studies support this assertion (Cheung & Kan, 2002; Cochran et al., 2013; Dupin-Bryant, 2010). Dupin-Bryant (2010) examined the relationship between years of computer experience, completion of computer training, and persistence. She found that while experience was not a predictor of persistence, completion of academic computer training was. She argued that what matters are the skills a student has and not simply number of years of experience.

Dupin-Bryant’s (2010) conclusion might explain Harrell and Bower’s (2011) finding that an increase in self-reported computer skills was associated with a higher withdrawal rate. It is possible that students in their study were rating their proficiency based solely on the time they had spent using computers and other technology. Another explanation could be that the instrument the researchers created for their study was not a valid measure of computer proficiency. Further, it could also be associated with students overestimating their skills. Looking at a related, but different construct, Holder
(2007) found that there was no association between computer confidence and persistence in online courses. These studies support the case for providing online students with training focused on using computers for academic purposes.

**Measures of learner autonomy.** A number of studies have attempted to find a link between persistence in online courses and various constructs that can be categorized as measures of learner autonomy. Aragon and Johnson (2008) conducted a study with students enrolled in online courses at a rural community college in the Midwest. Participants completed the Bartlett-Kotrlik Inventory of Self-Learning (BISL), which is designed to measure a student’s readiness for self-directed learning (Aragon & Johnson, 2008). Bartlett and Kotrlik (1999) cited Knowles who defined self-directed learning as a process in which learners take initiative to develop and achieve their own learning goals with or without the help of others. Aragon and Johnson found that there was no significant difference in self-directed learning scores between completers and non-completers.

Holder (2007) was interested in the construct of self-efficacy. Self-efficacy is a person’s belief or confidence in their abilities to complete tasks or achieve goals (DeTure, 2004). Holder’s study used students enrolled in online degree completion programs ranging from associate’s to master’s degrees at a major midwestern university. He found that students who completed their online courses had higher measures of self-efficacy.

Several studies have examined locus of control. Locus of control indicates whether an individual is internally or externally motivated (Morris et al., 2005). Individuals with an internal locus of control believe that events are the result of their own
choices or actions while individuals with an external locus of control perceive events to be the result of external forces such as luck or chance (Parker, 2003). In the educational context, students with an internal locus of control believe that dropping or failing a course was the result of their actions, things they did or did not do. On the other hand, students with an external locus of control might believe that the reason they were not successful was due to poor teaching, course design, or technology failures.

Morris et al. (2005) and Parker (2003) both conducted studies using Rotter’s instrument to measure locus of control. Parker noted that Rotter’s instrument “dominates the literature” on the subject (Instruments section, para. 1). They found that students with an internal locus of control were more likely to successfully complete an online course. Using a different instrument, Lee and Choi (2013) reached a similar conclusion. Other studies yielded different findings. Harrell and Bower (2011) used Rotter’s instrument, but found that locus of control was not a significant predictor variable in determining whether a student would successfully complete an online course. Using Trice’s instrument, Levy (2007) also found no significant association.

**Summary.** The literature reviewed in this section is summarized in Table 1. It is important to note that these variables do not constitute an exhaustive list of those that have been researched. Other studies have examined possible predictors such as academic major (Levy, 2007), family support (Park & Choi, 2009), financial aid status (Aragon & Johnson, 2008; Morris et al., 2005), occupation (Willging & Johnson, 2009), social readiness (Liu, Gomez, & Yen, 2009), and time management skills (Holder, 2007). Discovering predictor variables is important as it could help colleges identify and assist at-risk students. For example, colleges could provide extra resources to students
with a low GPA who enroll in online courses (Harrell & Bower, 2011). It could also provide advising staff with information to guide students toward the course delivery format that is best suited to their needs.

Table 1
Summary of Studies Examining Characteristics and Predictors

<table>
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<tr>
<th>Variable</th>
<th>Association with Persistence</th>
<th>No Association with Persistence</th>
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<tr>
<td></td>
<td></td>
<td>Levy (2007)</td>
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<td>Park and Choi (2009)</td>
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<td>Tello (2007)</td>
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<td>Grade Point Average</td>
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<td></td>
<td>Cochran et al. (2013)</td>
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<td>Morris et al. (2005)</td>
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<td>Willging and Johnson (2009)</td>
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<td>Dupin-Bryant (2010)</td>
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<td>Harrell and Bower (2011)</td>
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<td>Cheung and Kan (2002)</td>
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<td></td>
<td>Cochran et al. (2013)</td>
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<td>Harrell and Bower (2011)</td>
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<tr>
<td>Self-Directed Learning</td>
<td>Aragon and Johnson (2008)</td>
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<td>Self-Efficacy</td>
<td>Holder (2007)</td>
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<tr>
<td>Locus of Control</td>
<td>Lee and Choi (2013)</td>
<td>Harrell and Bower (2011)</td>
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<td></td>
<td>Parker (2003)</td>
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Reasons for withdrawal. In order to develop successful interventions to keep students from dropping out of online courses, it is important to understand the reasons
why they withdraw. It is also important to examine these reasons as they differ from those for face-to-face courses (Hart, 2012; Sutton & Nora, 2009). Rovai (2002) argued that the prominent models of student persistence fall short when examining online attrition as they were designed for traditional settings and not online learning. Street (2011) believed that this is because the demographics of online courses differ significantly from face-to-face courses.

Similar to studies attempting to find predictors of student attrition, those exploring reasons why students drop out of online courses yield a plethora of both unique and interrelated results. Students give reasons ranging from lacking motivation and falling behind in their work (Fetzner, 2013) to experiencing anxiety and feeling overwhelmed by the course content (Muller, 2008). Despite this, several consistent themes emerge from an examination of the literature. These include experience and expectation mismatch, low satisfaction, lack of interaction, technological challenges, and personal problems. This section will examine each of these reasons in greater detail. A summary table is presented at the end of the section.

*Expectation and experience mismatch.* Students enter the online learning environment with various expectations related to the course, their instructor, and even their fellow students. Often, these expectations do not match the reality they experience in the virtual classroom. Further, students often lack an understanding of the expectations that faculty have for them in relation to their performance in the course. Fetzner (2013) asserted that students often don’t know what to expect when enrolling in an online course for the first time. In a survey of community college students, she found that almost half did not know they were required to begin their online course on a
specific date. Students sign up for online courses with faulty assumptions that can have a negative impact on their performance.

Some students may sign up for an online course believing that it is an "easy A" (Moody, 2004, p. 205). Nash (2005) surveyed community college students who enrolled in an online course and found that students who withdrew were twice as likely as students who completed to report that they selected the format because they believed it would be easier than a face-to-face course. Nash stated, “These findings suggest the need to manage student expectations about this mode of learning” (Discussion section, para 2.). Morgan and Tam (2006) interviewed students who withdrew from an online program at the University of Sydney. They found that students often encountered what they termed “epistemological barriers,” which encompassed course content being more difficult than expected (pp. 99, 104). Students may perceive online courses as less rigorous or they may simply mistake convenience for easiness.

One of the conveniences of online learning is the ability to schedule coursework around other demands such as work and family obligations. However, students often don’t understand how much time is required to be successful. In interviews with students who withdrew from online programs in the United Kingdom, Packham et al. (2004) found that one of the reasons students gave for dropping out was that they had underestimated the amount of time they would need to complete assignments. This finding supports Nash’s (2005) argument that unsuccessful online learners often have poor time management skills.

In addition, students often underestimate the amount of time that their other life commitments require (Packham et al., 2004). A study conducted at a Greek university
found that students who withdrew from online programs often reported that they had not properly estimated the amount of time required to manage both work and school (Perry, Boman, Care, Edwards, & Park, 2008). Perry et al. (2008) analyzed reasons students gave for withdrawing from online master’s degree programs in the health sciences. One frequently cited reason for withdraw was that work commitments were taking more time than anticipated and students did not have enough remaining time to devote to their coursework. Students who drop out find themselves unable to juggle the time demands of school, work, and family commitments. This is not surprising given that online courses enroll more non-traditional learners and these students are more likely to have external work and family obligations (Doyle, 2009; Rovai, 2003).

**Low satisfaction.** Another common reason for attrition in online courses is low student satisfaction. Levy (2007) called student satisfaction a “major” factor in a student’s decision to withdraw or persist in an online class (p. 198). Park and Choi (2009) conducted a study with non-traditional adult students who enrolled in online courses at a large midwestern university. Their data analysis revealed significant differences in satisfaction levels between students who withdrew and students who successfully completed the course. These findings indicate that satisfied students are less likely to drop out (Park & Choi, 2009). Exit interviews conducted with students who withdrew from an online master’s degree program found that almost half of students cited low satisfaction as their primary reason for leaving (Chyung, 2001). These students expressed dissatisfaction with the online learning environment itself.

Similarly, Fetzner (2013) found that community college students who withdrew from online courses often reported that they didn’t like the online learning format. It is
possible that online courses were not what these students expected. Strong, Irby, Wynn, and McClure (2012) found that one of the major contributors to student satisfaction in online courses was instructor interaction and presence. Kuo, Walker, Belland, and Schroder (2013) conducted a study with undergraduate students in online Education courses at a western university. They found that instructor-student interaction was a significant predictor of student satisfaction. The more interaction faculty have with students, the more satisfied they are with the learning experience (Kuo et al., 2013). Roby, Ashe, Sing, and Clark (2013) also found that lack of instructor availability was a source of student dissatisfaction in online courses.

Lack of interaction. While lack of instructor interaction can lead to lower satisfaction in online courses, it can also be a reason in and of itself for dropping out. Willging and Johnson (2009) found that lack of interaction with instructors was a reason frequently given by students for why they withdrew from their online course. Other studies support this finding (Aragon & Johnson, 2008; Muller, 2008; Nash, 2005). Aragon and Johnson (2008) stated, “Instructors need to establish a mechanism for communicating with their students” (p. 155). In their study, 28% of community college students who did not successfully complete an online course cited poor communication as a reason for their withdrawal.

Bambara, Harbour, Gray, Davies, and Athey (2009) conducted a study to explore the experiences of community college students enrolled in high-risk online courses. They defined high-risk courses as those with withdrawal or failure rates of 30% or higher. Through interviews with students the researchers found that many students felt isolated or alone. Students reported that the classes were “static” and that there was
little interaction on the course discussion board (Bambara et al., 2009, p. 224). Further, students enrolled in these courses often stated that they received little to no feedback on assignments and did not receive a reply when they asked their instructor a question via e-mail. Lack of interaction can increase the perceived distance between student and instructor.

Interaction with classmates is also important. Muller (2008) interviewed female students in online undergraduate and graduate degree programs at a university in the Northeast. She found that having meaningful interactions with classmates was cited as a factor that facilitated persistence. Invankova and Stick (2005) interviewed students in an online doctoral program and found that interactions with classmates created a sense of camaraderie and community, which influenced a student’s decision to persist in the program. When students are able to interact with their classmates they form bonds that can decrease feelings of isolation and loneliness. They also develop a support network that they can turn to for help or guidance when they are struggling.

**Technology issues.** Many believe that computer proficiency is high among today’s students given their level of exposure to technology. However, while students may be familiar with using computers for recreational or social reasons, they aren’t always as well versed in using them for professional or academic purposes. Several studies have found that technology problems were a primary reason given by students for why they withdrew from an online course (Chyung, 2001; Muse, 2003; Willging & Johnson, 2009). Technology issues can include general computer problems and issues with the course management system. Aragon and Johnson (2008) found that 18% of community college students who dropped out of an online course cited technology
problems as their reason for withdrawing. Moody (2004) argued that students often overestimate their technical skills and abilities when enrolling in an online course.

**Personal issues.** As with all college courses, personal problems can often prevent students from successfully completing online classes (Pierrakeas et al., 2004). Aragon and Johnson (2008) found that personal issues such as family, health, or financial problems were cited by 34% of community college students who dropped out of an online course. Muller (2008) noted that financial and health problems as well as emotional issues such as anxiety can be a significant barrier to persistence in an online course. Colleges can’t control or prevent students from experiencing personal problems. They can, however, make students aware of campus resources such as medical clinics, counseling services, emergency scholarships, or food banks. It may be more important for colleges to make online learners aware of these resources given the minimal time they may spend on campus and the lack of face-to-face interaction with faculty and classmates. In the traditional classroom, faculty may be able to spot students who are experiencing hardships and refer them to services. In the online environment, they may simply remain out of sight and out of mind.

**Summary.** Students list a variety of distinct but related reasons for dropping out of online courses. A summary of these reasons and the relevant studies is provided in Table 2. Factors such as low satisfaction and lack of interaction can be addressed proactively by colleges, while others such as personal problems cannot. By finding out why students withdraw from online courses, institutions can work to prevent them from doing so. Morgan and Tam (2006) stated, “By carefully identifying and dealing with
those barriers that are within its influence, institutions may well find that such actions are sufficient to persuade more students to continue with their studies” (p. 106).

Table 2
Summary of Studies Examining Reasons for Student Withdrawal

<table>
<thead>
<tr>
<th>Reason</th>
<th>Study</th>
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<td>Expectation and Experience Mismatch</td>
<td>Fetztnrer (2013)</td>
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<td>Harris et al. (2011)</td>
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<td>Nash (2005)</td>
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**Lack of interventions.** This section does not include an in-depth discussion of possible solutions or interventions. This is due to the lack of research on specific strategies to help learners persist in online classes (Nash, 2005). Gunter (2007) argued that much of the research surrounding online education has focused on comparing it to traditional classrooms rather than attempting to find strategies that can be used to facilitate persistence and create better student experiences. Kanuka and Jugdev (2008)
pointed out that there is a lack of research examining the effectiveness of institutional interventions such as orientations.

Others have called attention to the lack of research on interventions at the individual classroom and instructor level. Hutchins (2003) noted that finding ways instructors can best facilitate online classes and support learners has received little attention. Schutt, Allen, and Laumakis (2009) noted that there is not enough empirical research on instructor communication behaviors and the impact they have on student satisfaction and success in online classes. It is on this foundation that this study rests. The next two sections will explore possible interventions as well as provide justification for further researching them.

**Orientations**

Despite the lack of research on interventions to help learners persist in their online classes, a number of scholars have suggested that orientations might keep students from dropping out. Moody (2004) suggested that colleges should consider an introductory meeting at the beginning of the semester to address technology related issues. Harrell and Bower (2011) advocated for the use of orientations to acclimate students to the online learning environment. Tutty and Ratliff (2012) felt strongly enough about the potential benefit that they recommended orientations be required before students can begin an online class. Fetzner (2013) suggested that colleges hold orientation sessions a few weeks prior to the start of the course so that students can evaluate if the online learning environment is for them and transfer to a face-to-face class if they decide it is not.
Others suggested that orientations might help to mentally prepare learners and provide them a chance to meet and make connections with other students (Abdulla, 2012; Rovai, 2002; Scagnoli, 2001). Abdulla (2012) and Nash (2005) noted that orientations provide students with a basic overview of the course structure, including a description of expectations and demands. Similarly, Packham, Jones, Miller, and Thomas (2004) noted that orientations can be used to address and correct inaccurate perceptions students may have about the online learning environment. This is important as many students enter online classes with unrealistic expectations related to time and workload (Nash, 2005; Packham et al., 2004).

Benefits of orientations. Despite the strong recommendation for orientations in the literature, there are a minimal number of empirical studies examining their efficacy (Motteram & Forrester, 2005). Of these, only a few examine the relationship between orientations and persistence. Wojciechowski and Palmer (2005) conducted a literature review on this topic found only one related study from 1996. More recently, a few additional studies have been conducted. The results are promising.

Ali and Leeds (2009) conducted a study with students enrolled in a bachelor’s degree program in business administration at a large southeastern state university. The program was experiencing a withdrawal rate of over 23% in online classes compared to 9% in face-to-face classes. Students who enrolled in an introductory business course were invited to attend a face-to-face orientation prior to the start of classes. The persistence rate of students who attended the orientation was 91% while the persistence rate of students not attending was 18%. While the results are impressive, it
is important to note that the study made use of a convenience sample and had a relatively small sample size ($N = 64$).

Wojciechowski and Palmer’s (2005) study examined the relationship between several different variables, including attending an optional face-to-face orientation, and persistence in an online undergraduate business course at a community college. The results of their regression analysis indicated that orientation attendance was a strong predictor of persistence. In their model it was second only to student GPA, which has already been demonstrated to be a strong predictor of student success in online courses. Further, within the population of students who successfully completed the course, they found a strong correlation between orientation attendance and final grade. The researchers found that students who did not attend the orientation earned lower final course grades than those who did.

Hall’s (2010) doctoral dissertation also supports the effectiveness of using an orientation to retain online learners. Students enrolled in an online course at a mid-Atlantic community college were invited to complete an online orientation session prior to the start of the semester. The persistence rate of students who viewed the orientation was 98% while the persistence rate of students who did not attend the orientation was 35%. A chi-square test of independence revealed that there was a significant relationship between orientation participation and persistence.

Another study with a significantly larger population examined orientations as part of an overall strategy to increase persistence. Clay, Rowland, and Packard (2008) described the results of an intervention to reduce attrition in eCore courses at the University of West Georgia. These consist of general education courses and are open
to all students in the University of Georgia System. Students were required to complete an online orientation module before enrolling in eCore English and Mathematics courses for the first time. After one semester of implementation, persistence increased from 71% to 95% in English Composition I, from 62% to 91% in English Composition II, and from 68% to 82% in College Algebra. It should be noted that the intervention also included special advising and enhanced communication with students.

A few additional studies have examined other benefits of orientation sessions and materials. One of these studies involved students enrolled in video-based distance learning courses (Pattison, 2003). Pattison (2003) found that having students work with classmates to complete a paper orientation booklet resulted in them having more positive thoughts about the course, relying less on instructors, collaborating more with peers, and being more satisfied with the experience. These findings are similar to those of Brewer and Yucedag-Ozcan (2012). In their study, students completed an online orientation course during their first semester enrolled in an online degree program. The online course contained a variety of topics including distance learning basics, use of the Internet for academic purposes, learning styles, and time management skills. Using a pre and post-test design, they found that students’ self-efficacy scores increased significantly after completing an online orientation course.

Kanuka and Jugdev (2006) also employed a pre and post-test design to investigate the impact of an orientation experience on academic and social empathy levels. Drawing on the work of Holmberg, they asserted that empathy involves satisfaction, relevance, and sense of belonging. Students in an online MBA program at Athabasca University completed a one-week long online orientation course prior to the
start of classes. The course was structured similarly to the online courses in the program. The course introduces students to the technology tools used in the program; provides tips for time management; and discusses ways to maintain a balance between work, school, and home life. Time management is an especially important topic given that students often withdraw from online courses due to not having enough time to devote to coursework (Perry et al., 2008). Kanuka and Jugdev found a statistically significant difference in empathy levels before and after the orientation. They argued that when empathy levels are higher, students are more engaged in the course.

**Student response.** Given that many students enroll in online classes due to time constraints and/or being in a different geographic location (Jaggars, 2014), one might wonder if they would respond negatively to being required to attend an orientation session. However, this does not appear to be the case. Students at Richland Community College were required to complete an online orientation when taking an online or hybrid class for the first time (Jones, 2013). The orientation contained modules covering topics such as computer requirements, college services and resources, using the course management system, and tips to be a successful online learner. Survey results indicated that 90% of students found the orientation to be helpful and 87% felt confident in their understanding of how to be successful after completing it. Jones (2013) also found that the persistence rate in online courses increased from approximately 72% to approximately 80% after implementation of the orientation. In addition, the technical support department reported a decrease in student phone calls.

Abdulla (2012) conducted a study with students enrolled in an online pharmacy math class at a community college in the western United States. Students taking the
course were invited to attend an orientation session prior to the start of the class. Approximately 80% of students who attended the orientation reported that they found it to be useful. The orientation did not include training on the college’s learning management system. Over three quarters of students reported that they believed receiving such training would have made them feel more comfortable in the course. This makes sense given that technological issues are one of the reasons students give for withdrawing from an online course (Muller, 2008; Willging & Johnson, 2009).

A study conducted with graduate students at an Australian university had similar findings (Wozniak, Pizzica, & Mahony, 2012). The university implemented an online orientation that adult students were required to complete prior to beginning online degree programs in the health sciences. Wozniak et al. (2012) discovered that during the first semester of implementation, approximately 97% of students found the orientation to be helpful. Although this fell during the second semester, satisfaction remained high at approximately 81%. Through analyzing student comments, the researchers found that students liked the orientation because it was easy to follow and they believed the tasks to be relevant to what they would have to do in their online courses.

It is significant that student satisfaction with orientations is high. If students view the orientation as part of the overall course experience, this might increase their level of satisfaction with the course as a whole. Orientations can also help correct inaccurate assumptions and unrealistic expectations about online courses that might lead to student dissatisfaction. Further, demonstrating how to properly use course technology tools can prevent students from becoming frustrated which also has an impact on
satisfaction. Low satisfaction has been found to contribute to a student’s decision to withdraw from an online course (Chyung, 2001; Fetzner, 2013; Levy, 2007; Park & Choi, 2009).

**Content and design.** There are a variety of topics that can be included in an orientation to online learning. One of the things that students most want to know about is course requirements. Marshall, Greenberg, and Machun (2012) were interested in finding out what types of information students wanted in order to make a decision about whether or not to enroll in online classes. Students in an online graduate program in educational technology were surveyed. The researchers learned that students wanted information about course assignments, required synchronous meetings, and time requirements. Some students expressed interest in knowing how much time previous students had spent on the course. When included in an orientation, this information can help students understand what to expect and can help them to decide if online learning is right for them.

Ludwig-Hardman and Dunlap (2003) and Tomei, Hagle, Rineer, Mastandrea, and Scollon (2009) also suggested including information about course requirements. They recommended that orientations provide students with a sense of what it is like to learn online. Wozniak et al. (2012) recommended constructing an orientation that mirrors an actual course. They noted that the orientation should include “authentic tasks in a risk-free environment” (p. 905). Orientations should also include information about time management and study skills (Ludwig-Hardman & Dunlap, 2003). Abdulla (2012) found that students wanted information about how assignments would be graded.
Orientations should also provide ample opportunity for students to interact and socialize with one another. Forrester, Motteram, Parkinson, and Slaouti (2005) suggested that orientations facilitate dialogue between learners in order to help them develop a sense of belonging. Ali and Leeds (2009) stressed that orientation activities should be designed to support students in building friendships, developing study groups, and forming project teams. They stated, “Orientations, whether online or face-to-face, can produce some lasting relationships among the participants” (Literature Review section, para 2). Making connections during orientation can increase student-to-student interaction throughout the semester, which may reduce feelings of isolation and loneliness.

Given that technology issues often cause problems for students, it is important to provide some coverage of computer skills and the learning management system in an orientation. Ali and Leeds (2009) argued that an orientation should introduce students to technical requirements and provide them with an overview of how the course is organized. Scagnoli (2001) asserted that introducing students to required software and media during orientation could help ensure that the course gets off to a smooth start. Abdulla (2012) found that students wanted and needed information about how to navigate the college’s learning management system. Including an overview of course technology in the orientation may be more beneficial than simply providing materials for students to consult if needed. It has been noted that students often overestimate their technical proficiency (Moody, 2004). Thus, they are unlikely to seek out and use optional computer or technology skills tutorials. Including them as part of orientation ensures that all students have the skills needed to succeed.
Faculty who have experience working with online learners should have a hand in the design of orientation sessions. Bozarth, Chapman, and LaMonica (2004) surveyed faculty to find out what they felt should be included in an orientation session for new online students. The survey revealed several themes. The faculty expected students to have specific technology skills related to their course, such as doing word processing, working with spreadsheets, and opening PDF files. Faculty were also asked to identify student problem areas. Second to poor technology skills, they responded that many students had poor time management skills. Faculty also indicated that students must know how to work independently and schedule time to complete course requirements. Once again, having appropriate computer skills and the ability to manage time effectively is crucial to student success in online classes.

**Immediacy**

There is ample evidence to support the notion that faculty need training to effectively assist learners in the online environment. Many faculty themselves lack experience as online learners (Schwartz & Haynie, 2013). Thus, they are often ill prepared to teach online and need training on course development and facilitation strategies (Bocchi, Eastman, & Swift, 2004; Moody, 2004). Bambara et al. (2009) suggested that instructors who teach high-risk online courses, which are those with traditionally high attrition rates, be required to engage in professional development that promotes best practice in online education. Gunter (2007) argued that what online instructors need most are simple and easy-to-implement strategies that have a positive impact on student success.
Ideally, these strategies should address many of the reasons students give for dropping out of online courses. They should also be effective and easy to learn. This is where immediacy comes in. O’Sullivan, Hunt, and Lippert (2004) stated, “Research on immediacy in instructional settings consistently has found a positive and robust relationship between frequency of immediacy behavior and a range of desired educational outcomes” (p. 469). Rodriguez, Plax, and Kearney (1996) argued that no other variable has had a greater impact on student success than immediacy. In addition to being effective, it is relatively simple to train faculty about immediacy behaviors. Jensen (1999) found a significant difference in student perceptions of instructor verbal immediacy after faculty had participated in a 90-minute training session. Immediacy holds great promise as a way to keep students online.

**Background and history.** Social psychologist Albert Mehrabian is widely credited as having developed the concept of immediacy (Baker & Woods, 2004; Melrose & Bergeron, 2006; Witt, Wheeless, & Allen, 2004). Mehrabian was interested in decoding nonverbal cues, specifically posture and body positioning. Following semiotics theory, if one accepts that nonverbal cues are a part of communication, just like language, they must refer to or stand for something (Mehrabian, 1969). In the case of nonverbal cues, Mehrabian (1969) theorized that they referred to some feeling or emotion being experienced by the communicator. He believed that you could measure nonverbal cues on a dimension of immediacy. Mehrabian (1967) initially defined immediacy as “the degree of directness and intensity of interaction between two entities, such as two people” (p. 325). He argued that by measuring the immediacy of a communicative interaction you could infer the communicator’s feelings or attitudes.
One of Mehrabian’s (1967) first experiments on the topic sought to do just this. An experimenter spoke to individuals with varying combinations of head and body immediacy. Highly immediate head and body positioning involved the experimenter directly looking at and facing the individual, whereas low immediacy involved the opposite. He found that when a communicator’s head and body immediacy toward an individual are high, that individual is more likely to perceive that the communicator has a positive attitude toward them than when immediacy is low. Based on this and other similar experiments, Mehrabian theorized that one could use measures of immediacy to infer liking, preference, and degree of positive evaluation in addition to level of attention and perceived social status.

Mehrabian (1969) later offered a revised definition of immediacy as “the extent to which communication behaviors enhance closeness to and nonverbal interaction with another” (p. 203). He also expanded the list of nonverbal cues that could be measured in terms of immediacy to include touching, distance, forward lean, eye contact, head and body orientation, movement, and facial expressions. Mehrabian (1971) offered further clarification with the immediacy principle, which states, “People are drawn toward persons and things they like, evaluate highly, and prefer; and they avoid or move away from things they dislike, evaluate negatively, or do not prefer” (p. 1). Immediacy behaviors are those communication actions that communicate liking and reduce distance between communicators.

While Mehrabian’s (1967, 1969) initial focus was on nonverbal behaviors, he suggested that verbal cues could also have an impact on perceived attitudes and be measured in terms of immediacy. Weiner and Mehrabian (1968) expanded on this by
stating, “Anyone who listens carefully to the way people say things quickly learns that
the particular words a speaker uses to describe an event or experience can be a rich
source of information about his feelings and attitudes” (p. 1). Communicators have at
their disposal a variety of words that can be combined in different ways to convey
meaning. In any given interaction, they select specific words and arrange them in
distinct ways to communicate a message. Weiner and Mehrabian argued that these
choices were the result of underlying attitudes toward the person with which the
individual is communicating. They further argued that words could be used to create or
minimize distance between communicators.

Weiner and Mehrabian (1968) provided a few examples of how language can be
used to minimize distance. When recapping a conversation with someone we can say
either, “Remember that you and I spoke about…,” or, “Remember that we spoke about …” (Weiner & Mehrabian, 1968, p. 2). Both variations communicate the same message.
However, the former reinforces the fact that the communicators are two separate
entities, while the latter minimizes distance and joins them as one. This can also be
seen in the use of the adverbs here and there. When a couple spots their friends after
searching for them in a crowd, they could say, “There they are,” or they could say, “Here
they are” (Weiner & Mehrabian, 1968, p. 34). Again, while both convey the same
message, the former calls attention to the distance between the individuals, while the
latter reduces it.

Before examining immediacy in the instructional context, it is important to
understand the norm of reciprocity as it applies to communication. Sociologist Alvin
Gouldner (1960) argued that in most social systems there is a norm of reciprocity that
guides interactions and behaviors between two people or entities. McCroskey and Richmond (2000) explained that when applied to communication the principle suggests that individuals mirror or reciprocate the communicative behaviors of those they are interacting with. This phenomenon can be observed when someone smiles at you, you typically smile back (McCroskey & Richmond, 2000). Based on this, Richmond and McCroskey (2000) introduced the “Principle of Immediate Communication” as a logical extension of Mehrabian’s concept of immediacy (p. 212). They stated, “The more communicators employ immediate behaviors, the more others will like, evaluate highly, and prefer such communicators; and the less communicators employ immediate behaviors the more others will dislike, evaluate negatively, and reject such communicators” (p. 212). The extended concept works in this manner. If a communicator displays immediacy toward the person they are communicating with, that individual will infer that the communicator feels positively toward them. They will then begin to feel positively toward the communicator. The immediacy principle then holds that the individual will be drawn toward the communicator.

**Instructional communication.** While some early studies implied that immediacy could have benefits in the classroom, Andersen (1979) was the first to conduct research on the subject (Witt et al., 2004). Andersen offered a simplified definition of immediacy as “behaviors that reduce distance between people” (p. 544). She was interested primarily in the impact of nonverbal immediacy behaviors on student affect, student behavioral commitment, and student cognitive learning. Students enrolled in multiple sections of a basic undergraduate interpersonal communication course were asked to rate their perception of instructor nonverbal immediacy using two different instruments.
To ensure validity, trained observers also sat in on the class sessions and rated the nonverbal immediacy of the instructors.

Andersen’s (1979) regression analysis found that nonverbal immediacy was a significant predictor of both student affect and behavioral commitment. It was not a predictor of student cognitive learning. Andersen defined behavioral commitment as the likelihood to engage in behaviors and practices suggested by the instructor as well as the likelihood of taking a course on a similar subject in the future. Based on these results, she argued that immediacy was an indicator of teaching effectiveness. Baker (2004) argued that Andersen’s work suggests that when students perceive their instructor to be immediate they are more likely to be interested in their instructor and the course itself. He further argued that students with immediate instructors would be more likely to engage with the course and be more satisfied with it. This is significant for online courses as low satisfaction (Fetzner, 2013; Levy, 2007) and lack of interaction and engagement (Aragon & Johnson, 2008; Muller, 2008; Nash, 2005) are primary reasons why students withdraw.

Even though Mehrabian’s concept of immediacy included both verbal and nonverbal cues, the early work on immediacy as an instructional communication strategy focused solely on the nonverbal (Witt et al., 2004). Gorham (1988) was one of the first to research and report findings on verbal immediacy. She asked 387 students enrolled in undergraduate communication courses to rate the verbal and nonverbal immediacy of their instructors as well as their perceived affective and cognitive learning. Gorham used a common method of asking students to complete the instrument thinking of the class preceding the one in which the research was being conducted. This
procedure allowed for a broad range of classes and instructors to be assessed. A regression analysis revealed that both verbal and nonverbal immediacy were significant predictors of student affective and cognitive learning.

As no previous studies had sought to explore verbal immediacy in the instructional context, Gorham (1988) had to develop an instrument for her study. She asked 47 advanced undergraduate communication students to think of the best instructors they had and list specific behaviors and characteristics of them. Using Weiner and Mehrabian’s (1968) work on verbal immediacy as a theoretical framework, she then eliminated the items that were not related to verbal immediacy. The result was a 20-item instrument to measure instructor verbal immediacy. It contained items such as, “Addresses students by name,” “Addresses me by name,” and “Refers to class as ‘our’ class or what ‘we’ are doing” (Gorham, 1988, p. 44). The instrument had a reliability score of .94 and was considered reliable. Additional information about this instrument, including reliability scores, will be covered in the next chapter.

**Face-to-face classrooms.** In the decades following Andersen’s (1979) research, much work was done exploring the effectiveness of instructor immediacy behaviors as an instructional strategy in the face-to-face classroom (Baker & Woods, 2004). Many of these studies have focused on student learning. Rodriguez et al. (1996) argued that no other variable has been as consistently associated with learning in the classroom as immediacy. However, not everyone agrees that there is an impact on learning; and not everyone agrees as to how and why it impacts learning when a relationship is present. Others have been more interested in exploring the impact of immediacy on student motivation arguing that increased motivation will lead to increased learning and success.
(Christophel, 1990; Frymier, 1994). No studies have examined the direct impact of immediacy on student persistence.

Kelly and Gorham (1988) conducted research with undergraduate students to study the impact of nonverbal immediacy on learning as measured by recall of information. They employed an experimental design in which students were randomly assigned to one of four conditions combining high and low levels of body immediacy with eye contact. Students were asked to listen to a list of items read by an experimenter displaying a specific immediacy condition. Once the experimenter finished reading, students were directed to write down the list of items in order. The researchers found that high body immediacy combined with high eye contact led to greater recall of information. Kelley and Gorham argued that one possible explanation is that increased instructor immediacy may lead to increased student attention, which is required for learning and recall of information to occur.

Titworth (2001) came to a different conclusion. He conducted an experiment with 223 undergraduate students enrolled in a basic communication course at a large midwestern university. Students were randomly assigned to watch videotaped lectures that displayed either high or low levels of immediacy, which included elements of both verbal and nonverbal immediacy. After viewing the lecture, students were asked to answer questions about it. They were retested on the material two weeks later. Titsworth found that there was not a significant relationship between immediacy and cognitive learning using results of either immediate or delayed testing.

Some researchers have also been interested in affective learning. Witt and Wheeless (2001) studied the impact of verbal and nonverbal immediacy on affective
and cognitive learning. They also employed an experimental design in which undergraduate students were randomly assigned to watch one of four videotaped lectures combining high and low levels of verbal immediacy with nonverbal immediacy. The results were mixed. Verbal immediacy had a positive impact on affective learning, but not cognitive learning. On the other hand, nonverbal immediacy had a positive impact on both affective and cognitive learning.

Several studies have examined the relationship between immediacy behaviors and motivation. Christophel (1990) conducted a study with undergraduate and graduate students enrolled in a wide variety of classes at a university. Students completed Gorham’s (1988) Verbal Immediacy Scale as well as a measure of nonverbal immediacy. They also completed instruments designed to measure student state motivation. According to Christophel, “State motivation is an attitude toward a specific class” (p. 324). This is compared to trait motivation, which is “a general, enduring predisposition toward learning” (Christophel, 1990, p. 324). Christophel found a positive correlation between both verbal and nonverbal immediacy and student state motivation.

Christophel (1990) argued that instructor immediacy behaviors increase student motivation, which can increase or enhance student learning. Christophel and Gorham (1995) conducted a similar study and found that the absence of instructor immediacy behaviors demotivated students to a greater degree than the presence of such behaviors motivated them. Interestingly, they also discovered that manipulating teacher behaviors could alter student motivation. They reached this conclusion by collecting data on perceived instructor immediacy and student motivation at multiple points during
the semester. These findings provide support for the use of immediacy behaviors as an instructional strategy by faculty.

Frymier (1994) was interested in both motivation and learning. She argued that the literature on immediacy and its impact on student learning revealed two distinct models: the learning model and the motivation model. The learning model holds that instructor immediacy behaviors directly impact student learning (Frymier, 1994). That is, there is a direct causal relationship between immediacy and learning (Rodriguez et al., 1996). The motivation model holds that instructor immediacy behaviors have a positive impact on student state motivation to engage in the course, which leads to an increase in student learning (Frymier, 1994).

To test these models, Frymier (1994) conducted a study using undergraduate students enrolled in communication courses at a mid-sized eastern university. She measured verbal and non-verbal immediacy, state motivation, trait motivation, affective learning, and cognitive learning at various intervals throughout the semester. She then conducted a path analysis to determine which model best fit the data. For both affective and cognitive learning, the motivation model was found to be a better fit. She argued that instructor immediacy behaviors positively impact motivation by getting students' attention and creating a more welcoming environment where success seems likely. It is these conditions that lead to gains in student learning.

Rodriguez et al. (1996) critiqued Frymier's analysis and offered a third model to explain how immediacy behaviors impact student learning: the affective learning model. They argued that affective learning, not motivation, is the causal variable between instructor immediacy and cognitive learning. In this model, students form positive
relationships with highly immediate instructors, which leads to an increase in cognitive learning (Rodriguez et al., 1996). To test this model the researchers conducted a study with 224 undergraduates enrolled in a speech communication course at a large midwestern university. Using both their data and the data set from Frymier's study they conducted a path analysis to test both the motivation model and the affective learning model. Rodrquez et al. found that both models fit the data well. However, they opted to “accept the model that offers the better explanation theoretically” (p. 303). They cited the work of Bloom showing that affective learning can cause cognitive learning. They also pointed to studies on immediacy that have found a strong relationship with affective learning but a much weaker and sometimes insignificant relationship with cognitive learning.

**Online classes.** The bulk of the research on immediacy behaviors as an instructional strategy has been conducted in traditional face-to-face classrooms (Baker, 2004; O'Sullivan et al., 2004; Schutt et al., 2009). More recently, some scholars have investigated verbal immediacy in online classes (Shu-Fang & Aust, 2008). Verbal immediacy is particularly appropriate in the online environment given the text-centric nature of many online courses (Easton, 2003). While instructors may make use of video or audio clips, they are still separated from their students. This lack of physical presence means that verbal immediacy is all the more important in order to reduce the perceived distance between instructor and student (Hutchins, 2003; Russo & Benson, 2005). Studies exploring immediacy in online classes have examined variables such as student motivation, learning, and satisfaction. There is currently a lack of research examining the relationship between instructor immediacy behaviors and student persistence.
Despite this, the research on verbal immediacy in the online environment helps to build the case for its use as a possible strategy to help students persist.

Similar to those conducted in face-to-face classes, learning has been a focus of several studies in the online realm. Baker (2004) conducted a study to explore the relationship between verbal immediacy behaviors and affective and cognitive learning. Graduate students enrolled in courses across multiple institutions completed Gorham’s (1988) Verbal Immediacy Scale as well as instruments to measure affective and cognitive learning. He found a strong positive correlation between immediacy and affective learning and a moderate positive correlation between immediacy and cognitive learning. Arbaugh (2010) also used Gorham’s instrument and found a significant positive correlation between verbal immediacy and perceived student cognitive learning. Arbaugh conducted a regression analysis and found that verbal immediacy was a significant predictor of perceived learning.

Another study reached a slightly different conclusion. Baker (2010) also used Gorham’s (1988) instrument to survey 377 students enrolled in online undergraduate and graduate courses at a mid-sized regional university. She found a significant positive correlation between verbal immediacy and affective and cognitive learning. However, the results of a regression analysis revealed that immediacy was not a significant predictor of the dependent variables. Despite this fact, Baker argued that it is important to conduct additional research on verbal immediacy in the online environment and explore its relationship with other variables.

Baker (2010) was also interested in student motivation. Much like learning, she found a significant positive correlation between immediacy and motivation, but
discovered immediacy was not a significant predictor. Hughes’ (2014) doctoral dissertation also examined the relationship between immediacy and motivation. Hughes used an experimental design in which undergraduate students were assigned to complete one of six different lessons that employed combinations of low, medium, and high immediacy with course materials consisting of text and pictures with and without audio narration. The results of a regression analysis revealed that immediacy predicted a significant amount of variance in student state motivation.

Similarly, O’Sullivan et al. (2004) also found a relationship between immediacy and student motivation. They examined the constructs of linguistic and presentational immediacy. Linguistic immediacy involved using first person language, casual words, and punctuation such as exclamation points, while presentational immediacy involved the use of color, graphics, and variations in typography (O’Sullivan et al., 2004). They found that only presentational immediacy was a significant predictor of student motivation. However, their immediacy constructs differ significantly from the bulk of published literature on the topic. The findings related to motivation are particularly important when considering immediacy behaviors as a way to help students persist in online classes. Students who are more motivated may be less likely to disengage and withdraw from their online course.

Another variable that is important to persistence is student satisfaction. Again, it has been demonstrated that low satisfaction is a reason given by students who drop out of online classes (Fetzner, 2013; Levy, 2007). Arbaugh (2001, 2010) conducted two very similar studies exploring the relationship between verbal immediacy and satisfaction. Both studies involved students enrolled in an online MBA program at a
midwestern public university. He found that verbal immediacy was a significant predictor of student satisfaction. In contrast, Shu-Fang and Aust (2008) found that while verbal immediacy was positively correlated with satisfaction, it was not a significant predictor. Interestingly, they did find that verbal immediacy was a significant predictor of student posting frequency in the course discussion board. Shu-Fang and Aust noted that one possible explanation may be that immediate instructors are more inviting and this encourages students to post more frequently. This finding may suggest that verbal immediacy encourages students to be more engaged in their online courses, which could lead to greater student success and increased persistence.

A few additional studies shed light on practical strategies to incorporate verbal immediacy in the online environment. Melrose and Bergeron (2006) conducted a qualitative study in which they interviewed students who successfully completed fully online master’s degree programs in the health sciences. They found that students valued a variety of instructional strategies that constituted verbal immediacy behaviors. This included sharing of personal information, addressing students by name, sharing inspirational thoughts, and providing prompt feedback. Gunter (2007) interviewed teachers who completed an online professional development course with a historically high completion rate. Students identified several verbal immediacy behaviors that they believed contributed to their success including giving praise, finding ways to relate to students on a personal level, and using emoticons.

**Teaching presence.** Teaching presence is a concept that is closely related to immediacy. It is one of three elements of Garrison, Anderson, and Archer's (2000) Community of Inquiry (CoI) framework. Garrison et al. (2000) argued that a “worthwhile
educational experience is embedded within a Community of Inquiry” (p. 88). Based on constructivist theory, CoI is a theoretical framework designed to facilitate research and improve practice in Internet-based classes (Arbaugh, 2007; Garrison, Anderson, & Archer, 2001; Laves, 2010). It is concerned with examining how various types of presence are promoted and exhibited in written text. The elements of CoI are beneficial in any educational setting; especially those that seek to promote critical thinking and deep learning (Garrison, 2007). However, much like verbal immediacy, CoI is particularly important in online courses due to their text-centric nature. Garrison et al.’s (2000) model posits that learning takes place when three elements interact: cognitive presence, social presence, and teaching presence.

Cognitive presence involves student engagement with course concepts and materials. Garrison et al. (2001) argued that cognitive presences involves the use and development of critical thinking skills rather than the attainment of specific learning outcomes. There is a cognitive presence cycle that begins with a triggering event, which can be an issue, problem, or task presented by the instructor (Garrison et al., 2001). Garrison (2007) argued that it is often challenging to move students beyond this step. The second step is exploration in which students explore and discuss the issue (Ice, Gibson, Boston, Becher, 2011). Next is integration, which involves constructing meaning out of the information obtained in the exploration phase (Garrison et al, 2001). The final step in the cycle, resolution, involves developing a solution to the problem and represents the creation of new knowledge (Ruhlandt, 2010).

The most extensively studied element of the CoI framework is social presence (Arbaugh, 2007). Social presence is the ability of students to project their authentic self
and build and maintain personal relationships (Garrison et al., 2000). This type of presence is important for cognitive presence, which requires learner interaction and discussion (Laves, 2010). DuVall, Powell, Hodge, and Ellis (2007) argued that social presence also has a significant impact on student satisfaction in online classes. Garrison (2007) asserted that social presence requires openness, effective communication, and group cohesion. Students must feel comfortable to disclose their feelings and emotions. One might believe that social presence is difficult to develop in the online environment given the distance between learners and the limitations of Internet communication media. However, Garrison et al. (2000) argued that the delivery medium does not limit social presence. Rather, they believe students can adapt and effectively use the tools at their disposal to build relationships with others.

The primary goal of teaching presence is to foster social and cognitive presence (Garrison et al., 2000). Because of this it is often considered the most “crucial” element of CoI (Garrison et al., 2000, p. 101). Teaching presence consists of design, facilitation, and direct instruction (Garrison, 2007). Anderson, Rourke, Garrison, and Archer (2001) asserted that teaching presence begins prior to the start of the course when the instructor designs or plans course content and activities. Faculty should assign tasks that encourage critical thinking and promote student interaction. Once the course begins, facilitation is important as faculty must work to engage students in course activities and discussions (Ice et al., 2011). Lastly, direct instruction involves presenting content and providing students with constructive feedback.

Despite its importance, teaching presence is the least researched element of the CoI framework (Arbaugh, 2007; Baker, 2008). Further, most studies on the topic have
been concerned only with examining whether or not teaching presence exists in specific online classrooms (Arbaugh, 2007). Recently, a few studies have sought to explore its relationship to student outcomes. Shea, Li, and Pickett (2006) examined the impact of teaching presence on student learning. They surveyed a random sample of 2253 students enrolled in 32 courses across colleges in the State University System of New York. They found a strong positive correlation between teaching presence and perceived student learning. Based on these findings, Shea et al. (2006) argued that a strong and active instructor presence is crucial to student success.

Baker (2010) was also interested in the impact of teaching presence on student learning. She found a significant positive correlation between student perception of teaching presence and affective learning, cognitive learning, and student motivation. A regression analysis found that perception of teaching presence was a significant predictor of both types of learning and motivation. Baker also found a significant positive correlation between instructor verbal immediacy and student perception of teaching presence. In a similar study, Arbaugh (2010) found that student perception of teaching presence was a significant predictor of perceived learning. However, he did not find a relationship between verbal immediacy and teaching presence.

Another study sought to explore the relationship between student persistence and teaching presence. Ice et al. (2011) examined courses with high and low withdrawal rates at the American Public University and the American Military University. They found that there was not a significant difference in perceptions of teaching presence between the two groups. However, their regression analysis revealed several interesting findings. They found that one survey item associated with teaching presence, “The instructor
clearly communicated course topics,” was a significant predictor of student satisfaction in courses with low withdrawal rates (Ice et al., 2011, p. 61). They also found that another survey item associated with teaching presence, “The instructor was helpful in guiding the class toward understanding course topics in a way that helped me clarify my thinking,” was a significant negative predictor of student satisfaction in courses with high withdrawal rates (Ice et al., 2011, p. 61). While the limited findings are of little value to practitioners, they again suggest that faculty play an important role in ensuring the success of online students.

Summary. Research on immediacy has taken place over the past five decades. A timeline of key developments in this body of work is presented in Figure 1. Mehrabian (1967) conducted the initial studies on immediacy as a way to infer communicator feelings and attitudes from nonverbal cues. Based on this research, Mehrabian (1969) argued that immediacy behaviors were a way to reduce distance between communicators. Andersen (1979) was the first to study immediacy in the instructional context. She found a significant relationship between nonverbal immediacy and student affect and behavioral commitment. Most of the research on immediacy in the classroom focused on nonverbal communication until Gorham’s (1988) study and the development of the Verbal Immediacy Scale. She found that verbal immediacy was a significant predictor of student learning. Arbaugh (2001) was one of the first researchers to examine immediacy in the online classroom. He found that verbal immediacy was a significant predictor of student satisfaction. A recent area of research focuses on teaching presence, one of three elements of Garrison et al.’s (2000) Community of
Inquiry framework. Shea et al. (2006) found a significant relationship between teaching presence and perceived student learning in online classes.

![Timeline of Key Developments in Immediacy Research](image)

**Figure 1**
Timeline of Key Developments in Immediacy Research

**Summary**

Persistence remains a significant concern in online education. Despite advances in technology, the studies reviewed in this chapter show that online classes often have greater attrition rates than similar face-to-face classes. Research has failed to yield a comprehensive set of variables that can predict student attrition. The literature also shows that students who withdraw provide a variety of reasons for doing so. Further, there is a lack of research on possible interventions. This leaves faculty and administrators with a complex problem and no proven solutions.

Some studies show that orientations may help keep online learners enrolled. However, more research needs to be done on this topic. Instructor immediacy behaviors
have been linked to learning, motivation, and student satisfaction. Yet much of this work was done in face-to-face classrooms and more research needs to be done in the online environment. In addition, there is a lack of research examining the relationship between immediacy and persistence in online classes.
Chapter Three:

Methods

Introduction

The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence in online courses. Chapter One provided background for the study and explained the importance of finding interventions to keep learners from dropping out of their online coursework. A comprehensive review of the literature in Chapter Two reinforced the need for the study and made a case for the use of orientations and instructor verbal immediacy behaviors as possible solutions to the persistence problem. This chapter serves to explain and justify the methods used in this study.

Research Questions

The following research questions guided this study:

1. What is the relationship between student attendance at a face-to-face orientation and persistence in online courses?

2. What is the relationship between student perception of instructor verbal immediacy and persistence in online courses?
3. What is the relationship between student perception of instructor verbal immediacy and satisfaction in online courses?

4. What is the relationship between student demographics (age, gender, race/ethnicity), student GPA, and persistence in online courses?

**Research Design**

This non-experimental, quantitative study combined both causal-comparative and correlational research methods. Gall, Gall, and Borg (2005) argued that non-experimental research designs, such as causal-comparative, are appropriate when it is not practical or possible to manipulate the independent variable. While training faculty to display specific conditions of verbal immediacy behaviors is possible, it would have far exceeded the timeline allotted for this study. Further, student assignment to the classes in the study as well as student attendance at the orientation session was not something that could be controlled by the researcher.

The major independent variables in this study were orientation attendance; instructor verbal immediacy; student demographic characteristics of age, gender, and race/ethnicity; and student GPA. McMillan and Schumacher (2001) defined the independent variable as one that has preceded or occurred before the dependent variable. Orientation attendance was measured by recording whether or not a student attended a pre-course orientation session. There were two possible values: attended orientation and did not attend orientation. Instructor verbal immediacy was measured using Gorham’s (1988) Verbal Immediacy Scale, which is described in detail in a later section. Values for age, gender, race/ethnicity, and GPA were obtained from the college
student information system. The possible values for race/ethnicity were American Indian, Asian, Black/African American, Hispanic, Pacific Islander, White/Caucasian, or Unknown. GPA was the student’s cumulative GPA at the beginning of the semester.

The major dependent variables in this study were student persistence, course persistence rate, and student satisfaction. Dependent variables are the ones we measure in order to observe any possible relationship with the independent variables (McMillan & Schumacher, 2001; Wiersma & Jurs, 2009). Student persistence was measured by recording whether or not the student successfully completed the course. There were two possible values: successfully completed the course or did not successfully complete the course. In this study, successful completion constituted earning a final course grade of A-D. This is the same definition used by Ali and Leeds (2009) in a similar study examining the relationship between attending a face-to-face orientation and persistence in online courses. Course persistence rate was measured by calculating the percentage of students enrolled in the course who successfully completed it. Student satisfaction was measured using the college’s Student Perception of Instruction survey, which is described in detail in a later section.

**Setting and Participants**

This study took place on one campus of a medium-sized public community college in the southeastern United States. The college enrolls approximately 20,000 students in both credit and non-credit programs. It maintains an open-admissions policy and offers workforce training, certificate programs, associate’s degrees, and bachelor’s degrees. The college currently offers a wide assortment of online courses across
various disciplines and has been working to package and market fully online degree programs. While the gap has been narrowing in recent years, the attrition rate in online courses ranges from 5 to 10 percentage points higher than in face-to-face courses. This is similar to the findings of several recent studies (Fetzner, 2013; Jaggars, Edgecombe, & Stacey, 2013). This study was conducted during the summer semester. The college’s summer semester consisted of two six-week terms and the study took place during the second term.

The college serves a diverse population of learners. During the 2013-2014 academic year, 54.3% of enrolled students were White, 18.2% were African American, 17% were Hispanic, and 2.4% were Asian. In terms of gender, 60.8% of students were female and 36.7% of students were male. The average age of students was 25.8. A majority of students enrolled at the college have full or part-time employment. As a result, only 25.6% of students are enrolled full-time, defined as taking at least 12-credit hours per semester. Several low-income communities lie within the college’s service area. As such, 43.7% of students received a Pell Grant during the fall 2013 semester. According to the U.S. Department of Education (2014), a majority of Pell Grant recipients have annual family incomes of less than $20,000.

The participants in this study were the students enrolled in the online classes selected for inclusion in the study. Classes were selected using a purposive sampling method. Wiersma and Jurs (2009) defined purposive, or purposeful sampling, as a method in which the researcher selects a sample that best suits the purpose of the study. Gall et al. (2005) stated that this involves selecting cases that “are likely to be information-rich with respect to the researchers’ purposes” (p. 310). The drawback to
this approach is that the sample is not likely to be representative of the larger population and thus the generalizability of results is limited (Gall et al., 2005).

Classes were selected by determining the persistence rate for each online course offered in the semester prior to the study. Based on these results, courses were categorized as having low, medium, or high persistence using percentiles. Three courses from each group, a total of nine courses, were selected for inclusion in the study. At the end of the College’s seven-day no-penalty drop period, a total of 171 students were enrolled in the nine classes. When selecting courses, the focus was on those taken during a student’s first or second semester enrolled at the college. This strategy was used in order to limit the potential impact of a student’s prior history with online classes. Successfully completing prior online courses been shown to be a significant predictor of success in future attempts (Cochran, Campbell, Baker, & Leeds, 2013; Harrell & Bower, 2011). After obtaining approval from the Institutional Review Boards (IRB) of the University of South Florida and the institution at which the study was conducted, faculty teaching the selected courses during the semester in which the study took place were invited to participate. IRB approval letters are provided in Appendix A. A sample of the e-mail message sent to faculty inviting them to participate is provided in Appendix B.

McMillan and Schumacher (2001) referred to this method of purposive sampling as maximum variation sampling. This approach involves selecting participants in order to observe different conditions of the research problem (McMillan & Schumacher, 2001). In this study, it was desirable to examine instructor verbal immediacy in classes with varying persistence rates in order to determine if a relationship exists between the two
variables. This method may also prevent encountering a restriction of range problem when conducting statistical analyses. Glass and Hopkins (1996) noted that restriction of range occurs when there is minimal variability in a sample. This can cause correlation coefficients to be smaller than if the sample had greater variability, thus understating any potential relationships between the variables (Glass & Hopkins, 1996).

**Procedures**

Approximately two weeks prior to the start of classes, students enrolled in the classes included in the study were invited to attend one of two on-campus face-to-face orientation sessions. The invitation was sent to each student’s college e-mail address. A sample of the e-mail invitation is provided in Appendix C. Students were asked to RSVP by responding to the e-mail. Faculty teaching the classes included in the study were also asked to e-mail their students and encourage them to attend. They were also asked to post a news item in their course announcing the orientation session as well as any extra credit they were offering to students who attended. One week prior to the start of classes, students who had not yet responded received a follow-up e-mail reminding them about the upcoming orientation session. Students who had already responded received an e-mail reminding them of the date, time, and location of the orientation session they signed up to attend. This procedure was based on one used by Ali and Leeds (2009) in a similar study. In order to further encourage attendance, two $50 gift cards were given away at each orientation session.

Two separate sessions were conducted in order to provide scheduling options for students taking other classes or those with work or family commitments. One session
was held on the Saturday morning prior to the start of classes. The other session was held on a weekday evening three days prior to the start of classes. The timing of the orientation sessions allowed students to drop their online course without penalty and register for a different course if they determined that the online format was not best suited to their needs. Marshall, Greenberg, and Machun (2012) argued that students need information in order to make informed decisions about the appropriateness of an online course. Students may come to the conclusion that an online course is not right for them after attending an orientation session.

The researcher conducted both orientation sessions. They contained the same content and ran approximately 90 minutes in length. The sessions covered course expectations and requirements, time management, technological requirements, common assignments and activities in an online course, and college support resources. A brief session outline is provided in Appendix D. The session began with an icebreaker activity designed to engage students and give them the opportunity to interact with one another. Forrester, Motteram, Parkinson, and Slaouti (2005) argued that orientations should facilitate dialogue between students. Ali and Leeds (2009) suggested that students be given opportunities to form friendships and develop study groups.

The sessions provided information about expectations of online courses, including time requirements and participation expectations. Fetzner (2013) argued that students often don’t know what to expect when they enroll in an online course. Students were also given study strategies specific to online courses. For example, students were advised to schedule time when they could work on course assignments without interruption and encouraged to take notes when reading course materials.
Another topic covered at the sessions was time management. Students completed an activity in which they created a weekly schedule listing all of their work and family obligations as well as time to complete their online coursework. After completing the schedule, students were asked to discuss whether they had enough time for all of their commitments and whether they were able to maintain a healthy life balance given their schedule. The discussion was followed by a presentation of strategies for managing time. Time management skills are especially important given that several studies have found students underestimate the time required to complete online courses (Nash, 2005; Perry, Boman, Care, Edwards, & Park, 2008).

Students were also provided with an overview of technological requirements. Several practitioners and researchers have noted the importance of including information about technology in orientation sessions (Abdullah, 2012; Ali & Leeds, 2009; Moody, 2004; Scagnoli, 2001). Students were shown the basic hardware and software requirements for taking an online course, typical software packages necessary to complete coursework, learning management system navigation, and technology support resources, including the college help desk and online technology training tutorials. The session concluded with a brief overview of other college support resources, including academic support and counseling services. Students who drop online classes frequently cite personal problems such as family, health, or financial issues (Aragon & Johnson, 2008; Pierrakeas, Xeno, Panagiotakopoulos, & Vergidis, 2004).

During the fourth week of the six-week term, students were invited to complete a web-based survey consisting of modified versions of Gorham’s (1988) Verbal Immediacy Scale and the college’s Student Perception of Instruction survey. Both Baker
(2004) and Baker (2010) recommended administering the survey during the last-half of the class in order to give students ample time to observe the instructor’s immediacy behaviors. The web-based survey tool allowed students to complete the survey anonymously. The invitation to participate was sent to each student’s college e-mail address. A sample of the survey invitation e-mail is provided in Appendix E. Faculty were asked to alert students that they would be receiving a survey invitation and encourage them to complete it. Approximately one week later, students were sent a reminder to complete the survey. During the final week of the six-week term, each faculty member posted a news item in their course with a direct link to the survey and a message encouraging students to complete it. Students who completed the survey were entered into a drawing to win one of two $50 gift cards.

At the end of the semester, course completion data and student demographic data were obtained from the college’s student information system. In order to protect confidentiality, student names and identifying information were not recorded or stored with the data. Persistence rates were calculated for each class included in the study. Class-level data was not stored with any identifying information in order to protect the confidentiality of students and faculty.

Instrumentation

The most widely used instrument to measure verbal immediacy in instructional settings is Gorham’s (1988) Verbal Immediacy Scale (Baker, 2004). The instrument has been used in studies conducted in both face-to-face classes (Christophel, 1990; Creasey, Jarvis, & Gadke, 2009) and online classes (Arbaugh, 2010; Baker, 2010;
Jennings, 2013). Gorham’s instrument was developed as a result of a study conducted with 47 undergraduate students enrolled in advanced communication courses. She asked them to think of the best instructors they had and list specific behaviors and characteristics of them. Using Weiner and Mehrabian’s (1968) work on verbal immediacy as a theoretical framework, she eliminated the items that were not related to verbal immediacy.

Her work resulted in the Verbal Immediacy Scale (Gorham, 1988), which is designed to measure instructor verbal immediacy in the instructional context. It consists of 20 items that students rate using a five-point Likert-type scale of zero to four, where zero represents never and four represents very often. The total verbal immediacy score is calculated by averaging the item scores. Four of the items represent non-immediate behaviors and they are reversed when calculating the overall score. It contains items such as, “Uses personal examples or talks about experiences she/he has had outside of class,” “Uses humor in class,” “Addresses students by name,” “Refers to ‘our’ class or what ‘we’ are doing,” and “Praises students’ work, actions, or comments” (Gorham, 1988, p. 44). For this study, the wording of the original instrument was modified slightly to better reflect the nature of online classes. The modifications were similar to those made by Arbaugh (2010) and Baker (2008). The original and modified instruments are presented in Appendix F and G respectively.\(^1\)

The instrument has proved reliable across numerous studies. The reliability score from Gorham’s (1988) original usage of the instrument was .94. Studies using the instrument in face-to-face classrooms have found reliability scores ranging from .86 to

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\(^1\) Gorham’s (1988) Verbal Immediacy Scale has been previously published in *Communication Education*, 37(1), 40-53, and has been reproduced with permission from Routledge / Taylor & Francis Group (see Appendix F).
.94 (Baker, 2004). In studies involving online classes it has generated reliability scores of .90 to .94 (Arbaugh, 2010; Baker, 2004).

Student satisfaction was measured in this study using a modified version of the college’s Student Perception of Instruction survey. The original survey consists of 17 items designed to measure a student’s satisfaction with the course by asking about the frequency of certain instructor behaviors. Three items that referred to the use of class time were removed and the wording of the remaining items was modified slightly to better reflect the nature of online classes. One item was added to ask students about their level of satisfaction with the orientation session. The modified survey includes items such as, “The professor explains ideas clearly,” “The professor answers questions effectively,” “The professor grades assignments in a reasonable amount of time,” and “The professor treats students in a respectful manner.” Students rate each item using a five-point Likert-type scale of zero to four, where zero represents not applicable, one represents almost never, and four represents almost always. Results provided to faculty consist of the response frequencies for each item. However, for purposes of this study, the overall score was calculated by averaging the item scores. The survey also contained four open-ended questions. The original and modified instruments are presented in Appendix H and I respectively.

Alignment of Research Questions to Data Collected

In order to ensure that all data collected in the study were used to answer the research questions, an overview of the alignment of the research questions to the data collected is provided in Table 3.
Table 3
Alignment of Research Questions to Data Collected

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Instrument / Source</th>
<th>Items / Data Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the relationship between student attendance at a face-to-face orientation and persistence in online courses?</td>
<td>Orientation check-in, College student information system</td>
<td>Orientation attendance, Course completion</td>
</tr>
<tr>
<td>2. What is the relationship between student perception of instructor verbal immediacy and persistence in online courses?</td>
<td>Gorham’s (1988) Verbal Immediacy Scale, College student information system</td>
<td>Items 1-20, Course completion rate</td>
</tr>
<tr>
<td>3. What is the relationship between student perception of instructor verbal immediacy and satisfaction in online courses?</td>
<td>Gorham’s (1988) Verbal Immediacy Scale, College Student Perception of Instruction (SPI) survey</td>
<td>Items 1-20, Items 1-19</td>
</tr>
<tr>
<td>4. What is the relationship between student demographics (age, gender, race/ethnicity), student GPA, and persistence in online classes?</td>
<td>College student information system</td>
<td>Age, Gender, Race/Ethnicity, Cumulative GPA at the beginning of the semester, Course completion</td>
</tr>
</tbody>
</table>

Data Analysis

After the data were collected they were analyzed using the SAS statistical software package. This section describes the statistical tests used to answer each of the research questions. An alignment of the study variables to the data collected is provided in Table 4. At the end of this section, an alignment of the research questions to the data analysis methods used is provided in Table 5.

Descriptive statistics were calculated for all data collected. The variables orientation attendance and student persistence are nominal-level variables. Nominal-level data are categorical data in which measurement involves grouping objects based on like characteristics (Glass & Hopkins, 1996). In this case, students were grouped based on orientation attendance and successful course completion. The most appropriate statistical test to analyze this data and answer Research Question One was a chi-square test of independence. Mertens (1998) argued that the chi-square test is
appropriate for use with nominal-level data. It is used to determine if two variables are independent of one another (Mertens, 1998). Glass and Hopkins (1996) stated that the chi-square statistic is used to determine if the observed proportion in two or more categories differs significantly from theoretical proportions. The test reveals whether or not there is a significant relationship between the variables. The level of significance for all statistical tests conducted in this study was set to $\alpha = .05$. The null hypothesis in the chi-square test assumes that the proportions in all groups are relatively equal (Glass & Hopkins, 1996). If a relationship existed between orientation attendance and course completion, the null hypothesis would be rejected.

The variables instructor verbal immediacy, course persistence rate, and student satisfaction are continuous variables. In order to answer Research Question Two, a linear regression analysis was conducted to determine if a relationship existed between verbal immediacy behaviors and course persistence rate. Another linear regression analysis was used to answer Research Question Three and determine if a relationship existed between verbal immediacy and student satisfaction.

Cody and Smith (2006) argued that linear regression, sometimes referred to as simple regression, is useful when attempting to predict one variable using another. In this case, the regression analysis revealed whether course persistence rate and student satisfaction could be predicted by instructor verbal immediacy. Stevens (1999) argued that linear regression operates on the assumption that the two variables are significantly correlated. Thus, in order to determine if a relationship existed between the two variables a Pearson correlation statistic was calculated prior to the regression analysis.
Mertens (1998) stated that the correlation coefficient determines the strength and direction of a relationship between two variables.

Table 4
Alignment of Variables to Data Collected

<table>
<thead>
<tr>
<th>Type</th>
<th>Variable</th>
<th>Instrument / Source</th>
<th>Items / Data Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Orientation Attendance</td>
<td>Orientation check-in</td>
<td>Orientation attendance</td>
</tr>
<tr>
<td></td>
<td>Instructor Verbal Immediacy</td>
<td>Gorham’s (1988) Verbal Immediacy Scale</td>
<td>Items 1-20</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>College student information system</td>
<td>Age</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>College student information system</td>
<td>Gender</td>
</tr>
<tr>
<td></td>
<td>Race/Ethnicity</td>
<td>College student information system</td>
<td>Race/Ethnicity</td>
</tr>
<tr>
<td></td>
<td>GPA</td>
<td>College student information system</td>
<td>Cumulative GPA at the beginning of the semester</td>
</tr>
<tr>
<td>Dependent</td>
<td>Student Persistence</td>
<td>College student information system</td>
<td>Course completion (Student successfully completed the course by earning a grade of A-D or did not successfully complete the course by earning a grade of F or W)</td>
</tr>
<tr>
<td></td>
<td>Course Persistence Rate</td>
<td>College student information system</td>
<td>Course completion rate (Percentage of enrolled students who successfully completed the course by earning a grade of A-D)</td>
</tr>
<tr>
<td></td>
<td>Student Satisfaction</td>
<td>Student Perception of Instruction (SPI) survey</td>
<td>Items 1-19</td>
</tr>
</tbody>
</table>

Student responses to the open-ended questions on the Student Perception of Instruction survey were analyzed using content analysis. Gall et al. (2005) stated that content analysis “involves the development of categories and a frequency count of the occurrence of each category” (p. 136). Merriam (2009) proposed several steps for analyzing qualitative data, such as the responses to the opened-ended survey
questions asked on the Student Perception of Instruction survey. First, the researcher reads through the data and makes notes and observations related to topics or themes present. This process is referred to as open coding (Merriam, 2009). Next, Merriam suggested reviewing the initial notes and grouping the codes that go together. These groups become themes or categories that “cover or span many individual” pieces of data (Merriam, 2009, p. 181). Merriam noted that the development of codes and themes might be guided by a variety of factors including the researcher’s experiences or observations, the responses of the participants, and outside sources such as relevant literature. In this study, theme development was guided by the review of the literature related to instructor verbal immediacy behaviors and student satisfaction in online courses.

The results of the content analysis were used to provide additional information about the relationship between instructor verbal immediacy, student-instructor communication, and satisfaction. If a relationship existed between verbal immediacy and student satisfaction, it would be expected that student comments about what the instructor does well and ways the instructor can improve would be related to instructor communication behaviors.

Logistic regression analysis was used to answer Research Question Four. Logistic regression can be used when attempting to predict a single dependent variable from multiple independent or predictor variables (Cody & Stevens, 2006). Glass and Hopkins (1996) stated that logistic regression is the most appropriate statistical test when the dependent or criterion variable is dichotomous. The variable student persistence is dichotomous as there were only two possible values: successfully
completed the course or did not successfully complete the course. They are opposite conditions. The logistic regression analysis revealed whether the independent variables of age, gender, race/ethnicity, and GPA were able to predict student persistence or attrition. Logistic regression allows for independent or predictor variables to be either categorical, as in the case of gender and race/ethnicity, or continuous, as in the case of age and GPA.

**Table 5**

Alignment of Research Questions to Data Analysis Methods

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Instrument / Source</th>
<th>Items / Data Elements</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the relationship between student attendance at a face-to-face orientation and persistence in online courses?</td>
<td>Orientation check-in, College student information system</td>
<td>Orientation attendance, Course completion</td>
<td>Descriptive statistics, Chi-square test of independence</td>
</tr>
<tr>
<td>2. What is the relationship between student perception of instructor verbal immediacy and persistence in online courses?</td>
<td>Gorham’s (1988) Verbal Immediacy Scale, College student information system</td>
<td>Items 1-20, Course completion rate</td>
<td>Descriptive statistics, Pearson correlation coefficient, Linear regression</td>
</tr>
<tr>
<td>3. What is the relationship between student perception of instructor verbal immediacy and satisfaction in online courses?</td>
<td>Gorham’s (1988) Verbal Immediacy Scale, College Student Perception of Instruction (SPI) survey</td>
<td>Items 1-20, Items 1-19</td>
<td>Descriptive statistics, Pearson correlation coefficient, Linear regression</td>
</tr>
<tr>
<td>4. What is the relationship between student demographics (age, gender, race/ethnicity), student GPA, and persistence in online classes?</td>
<td>College student information system</td>
<td>Age, Gender, Race/Ethnicity, Cumulative GPA at the beginning of the semester, Course completion</td>
<td>Descriptive statistics, Logistic regression</td>
</tr>
</tbody>
</table>

**Timeline for Completion**

An estimated timeline for completion of the study is presented in Table 6.
Table 6

Estimated Dissertation Timeline

<table>
<thead>
<tr>
<th>Dissertation Component</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal Defense</td>
<td>May 2015</td>
</tr>
<tr>
<td>IRB Approval</td>
<td>May 2015</td>
</tr>
<tr>
<td>Recruit Participants</td>
<td>May/June 2015</td>
</tr>
<tr>
<td>Conduct Orientation Session</td>
<td>June 2015</td>
</tr>
<tr>
<td>Administer Survey</td>
<td>July 2015</td>
</tr>
<tr>
<td>Collect Results from Survey</td>
<td>August 2015</td>
</tr>
<tr>
<td>Collect Data from Student Information System</td>
<td>August 2015</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>August 2015</td>
</tr>
<tr>
<td>Write Chapters 4 &amp; 5</td>
<td>September 2015</td>
</tr>
<tr>
<td>Review of Dissertation by Editor and Major Professor</td>
<td>October 2015</td>
</tr>
<tr>
<td>Defend Dissertation to Committee</td>
<td>November 2015</td>
</tr>
<tr>
<td>Final Edits and Formatting</td>
<td>November 2015</td>
</tr>
<tr>
<td>Final Copy of Dissertation</td>
<td>November 2015</td>
</tr>
<tr>
<td>ProQuest Submission</td>
<td>November 2015</td>
</tr>
<tr>
<td>Graduation</td>
<td>December 2015</td>
</tr>
</tbody>
</table>

Summary

The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence in online courses. This study took place on the campus of a medium-sized public community college in the southeastern United States. The participants were the
students enrolled in online courses selected for inclusion in the study using maximum variation sampling. This sampling method allowed instructor verbal immediacy behaviors to be observed in classes with low, medium, and high persistence rates. Students were invited to attend a face-to-face orientation session prior to the start of the course. During the fourth week of the six-week term, students were asked to complete modified versions of Gorham’s (1988) Verbal Immediacy Scale and the college’s Student Perception of Instruction survey. Student demographic characteristics and course completion data were obtained from the student information system. Statistical analyses were conducted to determine if relationships existed between the independent and dependent variables.
Chapter Four:  
Results

Introduction

The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence in online courses. Chapters One and Two provided context and justification for the study. Chapter Three outlined the methods used to conduct the study. This chapter will present the results of data collection and analysis in an effort to address the research questions listed in Chapters One and Three. The chapter begins by presenting the results related to orientation attendance and student persistence. It is followed by the results related to instructor verbal immediacy and persistence and the results related to instructor verbal immediacy and student satisfaction. Lastly, the chapter closes with the results related to student demographics and persistence.

Orientation Attendance and Persistence

The participants in this study consisted of 171 students enrolled in the nine online classes selected for inclusion in the study. Classes were selected using a purposive sampling method. Purposive sampling involves selecting a sample that best suits the purpose of the study (Wiersma & Jurs, 2009). In this study, it was desirable to examine
orientation attendance and instructor verbal immediacy in courses with varying persistence rates in order to determine if a relationship existed. Classes were selected by determining the persistence rate for each online course offered in the semester prior to the study. Based on these results, courses were categorized as having low, medium, or high persistence using percentiles. Three courses were selected from each group resulting in a total of nine courses. After obtaining appropriate IRB approvals (see Appendix A for IRB approval letters), faculty teaching the selected courses during the semester in which the study took place were invited to participate.

Approximately two weeks prior to the start of the semester, students enrolled in the classes included in the study were invited to attend one of two face-to-face orientation sessions. One session was held on the Saturday morning prior to the start of classes and the other session was held on a weekday evening prior to the start of classes. A total of 25 students responded to the invitation and attended an orientation session. Attendance at the two sessions was similar, although the weekday evening session had the greatest attendance. An attendance breakdown is provided in Table 7. At the end of the college’s seven-day no-penalty drop period, five students who attended orientation had dropped their online course that was included in the study. The result was a total of 20 participants or 11.7% attending an orientation session. While orientation attendance was low, it was acceptable for this study. Gall, Gall, and Borg (2005) stated that non-parametric statistics, such as the chi-square test used to analyze the data, make no assumptions in regards to sample size or distribution.

At the end of the semester, course completion status for each orientation attendee was collected from the college’s student information system along with the
overall number of completers and non-completers in the nine classes included in the study. With this data, the number of completers and non-completers who did not attend orientation was calculated. Of those students who attended orientation, 85% successfully completed their online course while 81.46% of students who did not attend orientation successfully completed their online course.

**Table 7**

Orientation Session Attendance

<table>
<thead>
<tr>
<th>Session</th>
<th>Session Attendance</th>
<th>Attendees Enrolled After Drop Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday Evening Session</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Saturday Morning Session</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>25</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Research Question One asked about the relationship between student attendance at a face-to-face orientation and persistence in online classes. A chi-square analysis was conducted to address this question. The chi-square test of independence is used to determine if there is a significant relationship between two or more nominal-level variables (Glass & Hopkins, 1996; Mertens, 1998). The variables orientation attendance and student persistence are nominal-level variables. Nominal-level variables are those that are measured by grouping objects based on like characteristics (Glass & Hopkins, 1996). In this case, students were grouped based on orientation attendance and successful course completion. Each variable had only two possible values. For orientation attendance, students either attended orientation or did not attend orientation.
For student persistence, students either successfully completed the course or did not successfully complete the course.

The chi-square analysis revealed that there was not a significant relationship between orientation attendance and persistence, $X^2 (1, N = 171) = .149, p = .669$. The observed and expected frequencies from the chi-square analysis are presented in Table 8. Observed frequencies are those observed by the researcher, while expected frequencies represent the number of number of observations expected in each group if there is no association between the variables (Glass & Hopkins, 1996). When there is not a significant relationship between the two variables, observed frequencies will not differ considerably from expected frequencies.

Table 8

<table>
<thead>
<tr>
<th>Orientation Attendance</th>
<th>Course Completion</th>
<th>Observed/Expected</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Observed</td>
<td>17</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>16.37</td>
<td>3.63</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Observed</td>
<td>123</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>123.63</td>
<td>27.37</td>
<td></td>
</tr>
</tbody>
</table>

Verbal Immediacy and Persistence

During the fourth week of the six-week term, students were invited to complete a web-based survey that contained a modified version of Gorham’s (1988) Verbal Immediacy Scale (see Appendix G). Gorham’s scale contains 20 items designed to
measure instructor verbal immediacy in the instructional context. Items are rated using a five-point Likert-type scale of zero to four, where zero represents never and four represents very often. Eighty-seven students completed the survey. Of those responses, 13 were mostly incomplete and were excluded from analysis. The result was 74 completed surveys for a response rate of 43.27%. This response rate is considered low. Rubin and Babbie (2008) argued that a response rate of 50% is the minimum considered “adequate” for analysis and reporting (p. 371). However, they noted that this rate is simply a guideline as there is no statistical basis for it. They also pointed out that a review of the literature revealed a wide range of response rates. The implications of this study’s response rate will be discussed further in the next chapter.

Descriptive statistics for each survey item are presented in Table 9. The highest scoring item ($M = 3.18$) was, “Provides feedback on my individual work through comments on papers, discussions, etc.” (Gorham, 1988, p. 44). This was the only item with a mean score greater than three. The lowest scoring item ($M = .76$) was, “Will have discussions about things unrelated to the course with individual students or with the class as a whole” (Gorham, 1988, p. 44). Both of these items represent immediacy behaviors. Of the items representing non-immediate communication behaviors, the highest scoring item ($M = 2.41$) was, “Asks questions that have specific, correct answers” (Gorham, 1988, p. 44). The lowest scoring non-immediate item ($M = .83$) was, “Calls on students to answer questions even if they have not indicated that they want to respond” (Gorham, 1988, p. 44).

The Cronbach alpha score for the 20 items on the Verbal Immediacy Scale was .81 and the survey was considered to be reliable. Cody and Stevens (2006) stated that
Cronbach’s alpha is one of the most commonly used estimates of reliability. The test measures the correlation between items on an instrument in order to assess the degree to which they are all measuring the same concept. George and Mallery (2003) argued that scores of .70 or higher are generally considered acceptable.

Table 9

Descriptive Statistics for Verbal Immediacy Scale Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Provides feedback on my individual work through comments on papers, discussions, etc.</td>
<td>3.18</td>
<td>1.11</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>6. Addresses me by name.</td>
<td>2.95</td>
<td>1.27</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>5. Addresses students by name.</td>
<td>2.93</td>
<td>1.32</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>2. Asks questions or encourages students to talk.</td>
<td>2.86</td>
<td>1.25</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>17. Praises students’ work, actions or comments.</td>
<td>2.81</td>
<td>1.25</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>14. Invites students to telephone, chat, or meet with him/her during office hours if they have questions or want to discuss something.</td>
<td>2.72</td>
<td>1.38</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>16. Asks questions that solicit viewpoints or opinions.</td>
<td>2.55</td>
<td>1.34</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>15. Asks questions that have specific, correct answers.*</td>
<td>2.41</td>
<td>1.45</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>10. Refers to the course as “our” course or what “we” are doing.</td>
<td>2.24</td>
<td>1.34</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>4. Uses humor in the course.</td>
<td>2.20</td>
<td>1.47</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>1. Uses personal examples or talks about experiences she/he has had outside of class.</td>
<td>2.04</td>
<td>1.46</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>3. Gets into discussions based on something a student brings up even when this doesn’t seem to be part of his/her plan.</td>
<td>1.99</td>
<td>1.49</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>13. Asks how students feel about an assignment, due date or discussion topic.</td>
<td>1.61</td>
<td>1.47</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>18. Criticizes or points out faults in students' work, actions or comments.*</td>
<td>1.43</td>
<td>1.42</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>9. Refers to the course as &quot;my&quot; course or what &quot;I&quot; am doing.*</td>
<td>1.28</td>
<td>1.29</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>20. Is addressed by his/her first name by the students.</td>
<td>1.20</td>
<td>1.47</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>7. Gets into conversations with individual students outside of the course.</td>
<td>1.11</td>
<td>1.41</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>12. Calls on students to answer questions even if they have not indicated that they want to respond.*</td>
<td>0.83</td>
<td>1.23</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>8. Has initiated conversations with me outside of the course.</td>
<td>0.80</td>
<td>1.22</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>19. Will have discussions about things unrelated to the course with individual students or with the class as a whole.</td>
<td>0.76</td>
<td>1.19</td>
<td>0.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note. $n = 74$. Items marked with an * are presumed non-immediate and are reversed when scoring.
Research Question Two asked about the relationship between instructor verbal immediacy and persistence. To address this research question, the average verbal immediacy score and persistence rate were calculated for each class included in the study. Descriptive statistics for class verbal immediacy scores and class persistence rates are presented in Table 10. In order to determine the relationship between instructor verbal immediacy and student persistence, a Pearson correlation analysis was performed. The Pearson correlation coefficient is used to determine the strength and direction of the linear relationship between two variables (Cody & Smith, 2006; Glass & Hopkins, 1996). The analysis revealed that there was not a significant relationship between the variables, $r = .33$, $p = .38$.

Table 10

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Immediacy Score (Class Score)</td>
<td>2.17</td>
<td>.41</td>
<td>1.49</td>
<td>2.63</td>
</tr>
<tr>
<td>Class Persistence Rate</td>
<td>79.81</td>
<td>19.19</td>
<td>42.8</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note. N = 9.*

Glass and Hopkins (1996) argued that it is “good practice” to study a scatterplot of the data when examining the correlation between variables (p. 113). Wiersma and Jurs (2009) argued that a scatterplot gives a visual indication of the extent of the relationship between variables. A scatterplot of class persistence rate and class verbal immediacy score is provided in Figure 2. If there were a significant relationship between the two variables, the points would generally be distributed around a straight line.
(Wiersma & Jurs, 2009). As the points deviate from a straight line, the correlation decreases. In addition, when no correlation exists, high values of the dependent variable are just as likely to correspond to a low value of the independent variable as a high value of the independent variable. The points on the scatterplot in Figure 2 do not distribute around a straight line, indicating that the variables are not correlated. Further, a high persistence rate is just as likely to correspond to a low verbal immediacy score as a high verbal immediacy score.

![Figure 2](image.png)

**Figure 2**

Scatterplot of Verbal Immediacy Score and Persistence

To further examine the relationship between instructor verbal immediacy and student persistence, a linear regression analysis was performed. Linear regression is
used to determine whether one variable can be used to predict another (Cody & Smith, 2006). The regression analysis revealed that verbal immediacy was not a significant predictor of student persistence, $R^2 = .11$, $F(1,7) = .88$, $p = .38$. This result is consistent with the finding that the two variables were not significantly correlated. Stevens (1999) argued that linear regression operates on the assumption that the two variables are significantly correlated. Linear regression produces a model equation that can be used to determine a predicted value of the dependent variable given some value of the independent variable (Stevens, 1999). When there is not a significant linear relationship between the variables, the regression equation will not be able to accurately predict values for the dependent variable.

**Verbal Immediacy and Student Satisfaction**

In addition to Gorham’s (1988) Verbal Immediacy Scale, the web-based survey that students were invited to complete also contained a modified version of the college’s Student Perception of Instruction survey (see Appendix I). The modified instrument consists of 14 items designed to measure a student’s satisfaction with a course by asking about the frequency of certain instructor behaviors. Students rate each item using a five-point Likert-type scale of zero to four, where zero represents not applicable, one represents almost never, and four represents almost always.

Descriptive statistics for each survey item are presented in Table 11. Total satisfaction scores were high and the mean scores for all items were greater than three. The two highest scoring items had similar mean scores. The highest scoring item ($M = 3.76$) was, “The professor’s tests and assignments relate to course objectives listed on
the Basic Course Information (BCI).” The second highest scoring item \((M = 3.73)\) was, “The professor grades assignments in a reasonable amount of time.” The lowest scoring item \((M = 3.16)\) on the survey was, “I would consider taking a course from this professor again.” The Cronbach alpha score for the 14 items on the Student Perception of Instruction survey was .93 and the survey was considered to be reliable.

Table 11

Descriptive Statistics for Student Perception of Instruction Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. The professor’s tests and assignments relate to course objectives listed on the Basic Course Information (BCI).</td>
<td>3.76</td>
<td>0.74</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>10. The professor grades assignments in a reasonable amount of time.</td>
<td>3.73</td>
<td>0.82</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>1. The professor knows the subject well.</td>
<td>3.66</td>
<td>0.94</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>12. The professor treats students in a respectful manner.</td>
<td>3.64</td>
<td>0.88</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>4. The professor is well prepared.</td>
<td>3.55</td>
<td>1.04</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>11. The professor has clearly explained what is required to earn a particular grade.</td>
<td>3.55</td>
<td>1.04</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>7. The professor makes it clear what his/her office hours are and where his/her office is.</td>
<td>3.54</td>
<td>1.05</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>2. The professor explains ideas clearly.</td>
<td>3.41</td>
<td>1.06</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>5. The professor answers questions effectively.</td>
<td>3.35</td>
<td>1.22</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>6. The professor encourages all students to participate in class.</td>
<td>3.35</td>
<td>1.31</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>3. The professor shows a genuine interest in teaching the course.</td>
<td>3.34</td>
<td>1.24</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>13. The professor uses the textbook effectively.</td>
<td>3.31</td>
<td>1.25</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>8. The professor is available to answer questions during posted office hours.</td>
<td>3.18</td>
<td>1.45</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>14. I would consider taking a course from this professor again.</td>
<td>3.16</td>
<td>1.34</td>
<td>0.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Note.* \(n = 74\).

Research Question Three asked about the relationship between instructor verbal immediacy and student satisfaction. To address this research question, the verbal immediacy score and student satisfaction score were calculated for each student who completed the survey. Descriptive statistics for verbal immediacy scores and student
satisfaction scores are presented in Table 12. In order to determine the relationship between instructor verbal immediacy and student satisfaction, a Pearson correlation analysis was performed. The Pearson correlation coefficient is used to determine the strength and direction of the linear relationship between two variables (Cody & Smith, 2006; Glass & Hopkins, 1996). The analysis revealed that there was a significant relationship between instructor verbal immediacy and student satisfaction, \( r = .57, p < .0001 \). The obtained correlation coefficient suggests a moderate positive correlation between the variables. This result indicates that when student perception of instructor verbal immediacy increases, student satisfaction increases.

### Table 12

Verbal Immediacy Scores and Student Satisfaction Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Immediacy Score</td>
<td>2.20</td>
<td>.63</td>
<td>.90</td>
<td>3.30</td>
</tr>
<tr>
<td>Student Satisfaction Score</td>
<td>3.70</td>
<td>.51</td>
<td>1.90</td>
<td>4.00</td>
</tr>
</tbody>
</table>

*Note. n = 74.*

Again, it is important to examine a scatterplot of the data when investigating the correlation between variables (Glass & Hopkins, 1996). A scatterplot of student satisfaction and verbal immediacy score is provided in Figure 3. When two variables are correlated, the points are generally distributed around a straight line (Wiersma & Jurs, 2009). In addition, when the variables are positively correlated, a high value of the dependent variable is most likely to occur with a high value of the independent variable (Glass & Hopkins, 1996). The correlation coefficient \( r = .57 \) indicates a moderate
positive correlation. Thus, it is expected that the points will distribute loosely around a straight line. This can be observed in the scatterplot in Figure 3. The points distribute loosely around a straight line and high values of student satisfaction are most likely to correspond to high values of verbal immediacy.

Figure 3
Scatterplot of Verbal Immediacy Score and Student Satisfaction

To further examine the relationship between instructor verbal immediacy and student satisfaction, a linear regression analysis was performed. Linear regression is used to determine whether one variable can be used to predict another (Cody & Smith, 2006). The regression analysis revealed that verbal immediacy was a significant
predictor of student persistence, $R^2 = .33$, $F(1,72) = 35.22$, $p < .0001$. The value for $R^2$ reveals how much variation in the dependent variable is a result of variation in the independent variable. In this case, the $R^2$ value of .33 indicates that 33% of the variance in student satisfaction could be explained by the variance in student perception of instructor verbal immediacy.

**Orientation satisfaction.** Students who completed the survey were also asked whether or not they had attended one of the two orientation sessions and, if so, to indicate their level of satisfaction with the session. Twenty students indicated that they had attended an orientation session. Of those respondents, 95% either agreed or strongly agreed that they found the orientation session to be helpful. Descriptive statistics for this item are presented in Table 13.

**Table 13**

Descriptive Statistics for Orientation Satisfaction

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found the orientation session to be helpful.</td>
<td>4.20</td>
<td>.52</td>
<td>3.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

*Note. n = 20.*

**Student comments.** The Student Perception of Instruction Survey also contained four open-ended questions. The responses were used to further understand the relationship between instructor verbal immediacy and student satisfaction. Student responses were analyzed using content analysis. Content analysis is used to analyze qualitative data, such as responses to open-ended survey questions (Merriam, 2009). It
involves categorizing the data and obtaining a frequency count of the occurrence of each category (Gall, Gall, & Borg, 2005).

The student responses were analyzed using a content analysis procedure proposed by Merriam (2009). First, the researcher read the student responses and coded them based on topics or themes present. This process is referred to as open coding (Merriam, 2009). Second, the initial codes were grouped together to form themes that could be used to represent individual student responses. Based on Merriam’s recommendation, the development of themes was guided by the review of the literature related to instructor verbal immediacy behaviors and student satisfaction in online courses. The results of the content analysis are presented in this section for each of the open-ended questions on the survey.

**Open-ended question one.** The first question asked, “What does the professor do well?” Response frequencies for this question are presented in Table 14. The most frequent response (39.06%) was related to the course instructor providing clear explanations of course concepts. Individual student responses represented by this theme highlighted the instructor’s ability to clearly explain difficult topics and concepts. Similarly, the second most frequent response (26.56%) was related to an instructor’s ability to clearly explain the expectations of the course and/or course assignments. One student commented, “I like the way he have [sic] mentioned each and every assignment with detail, because that is important for any online class.” Another student responded, “She makes directions very clear. She also has everything in a checklist under the weeks, which makes it very easy to follow and helps me remember to do everything.”

The third most frequent response (15.63%) dealt with student-instructor communication...
initiated by the instructor. Students commented that these instructors were “engaged” in the course and that they frequently initiated communication with students by e-mail or the course discussion board.

**Table 14**

Response Frequencies for Open-Ended Question One

<table>
<thead>
<tr>
<th>Question: What does the professor do well?</th>
<th>Frequency of Occurrence</th>
<th>% of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly explains course concepts</td>
<td>25</td>
<td>39.06</td>
</tr>
<tr>
<td>Clearly explains course and/or assignment expectations</td>
<td>17</td>
<td>26.56</td>
</tr>
<tr>
<td>Communicates frequently with students</td>
<td>10</td>
<td>15.63</td>
</tr>
<tr>
<td>Provides prompt and helpful feedback</td>
<td>9</td>
<td>14.06</td>
</tr>
<tr>
<td>Clearly organizes materials and information</td>
<td>5</td>
<td>7.81</td>
</tr>
<tr>
<td>Replies to email in a timely manner</td>
<td>4</td>
<td>6.25</td>
</tr>
<tr>
<td>Makes course fun and interesting</td>
<td>3</td>
<td>4.69</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>4.69</td>
</tr>
</tbody>
</table>

*Note. n = 64.*

**Open-ended question two.** The second question directed students to provide constructive feedback about the instructor’s teaching and asked, “How could the professor improve?” The majority of responses indicated that no improvement was necessary. Response frequencies for this question are presented in Table 15. Four responses were tied for the second most frequent (9.62%) and represented 38.46% of responses. The first response was the need for more frequent or more effective instructor communication. One student commented that they wanted to hear from the instructor more via e-mail. Another student suggested that the instructor could do more to ask questions and engage the class. The second and third responses were the need for instructors to better explain course concepts and the need to better explain course and/or assignment expectations. The final response was related to providing better
and/or more timely feedback. One student commented that the instructor could improve by “giving students feedback [sic] on how they could improve in the course.” Another student responded simply, “There is no feedback.”

**Table 15**

Response Frequencies for Open-Ended Question Two

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency of Occurrence</th>
<th>% of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No improvement needed or indicated</td>
<td>29</td>
<td>55.77</td>
</tr>
<tr>
<td>Communicate more frequently or effectively</td>
<td>5</td>
<td>9.62</td>
</tr>
<tr>
<td>Explain concepts more clearly</td>
<td>5</td>
<td>9.62</td>
</tr>
<tr>
<td>Explain course and/or assignment expectations more clearly</td>
<td>5</td>
<td>9.62</td>
</tr>
<tr>
<td>Provide better and/or more timely feedback</td>
<td>5</td>
<td>9.62</td>
</tr>
<tr>
<td>Better organize course materials</td>
<td>3</td>
<td>5.77</td>
</tr>
<tr>
<td>Assign less and/or less challenging work</td>
<td>2</td>
<td>3.85</td>
</tr>
<tr>
<td>Change course materials</td>
<td>2</td>
<td>3.85</td>
</tr>
</tbody>
</table>

*Note. n = 52.*

**Open-ended question three.** The third question asked, “What helped you learn in the course?” Response frequencies for this question are presented in Table 16. Three of the top four most frequent responses were related to course materials or resources and represented 75% of the responses. Individual student responses represented by these themes indicated that what helped them learn was course materials such as lecture notes, slides, or videos; the course textbook; or course assignments. Eight students (14.29%) indicated that the use of personal study strategies helped them learn. Personal study strategies included being organized, carefully reading and re-reading course materials, and having prior experience with online courses. Five students (8.93%) indicated that interactions with the course instructor helped them learn. One student responded, “Having a teacher who is always
there to help." Another student commented that it was the "interaction with the professor" that helped them. An additional five students (8.93%) indicated that they found course discussions to be beneficial to their learning. One student commented, "The mandatory discussions helped me learn other point of views and the professors [sic] feedback on my work was helpful as well."

Table 16
Response Frequencies for Open-Ended Question Three

<table>
<thead>
<tr>
<th>Question: What helped you learn in this course?</th>
<th>Frequency of Occurrence</th>
<th>% of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course content and materials</td>
<td>26</td>
<td>46.43</td>
</tr>
<tr>
<td>Textbook(s)</td>
<td>10</td>
<td>17.86</td>
</tr>
<tr>
<td>Personal study strategies</td>
<td>8</td>
<td>14.29</td>
</tr>
<tr>
<td>Course assignments</td>
<td>6</td>
<td>10.71</td>
</tr>
<tr>
<td>Course discussions</td>
<td>5</td>
<td>8.93</td>
</tr>
<tr>
<td>Interaction with course instructor</td>
<td>5</td>
<td>8.93</td>
</tr>
<tr>
<td>Outside resources</td>
<td>2</td>
<td>3.57</td>
</tr>
<tr>
<td>Other students</td>
<td>1</td>
<td>1.79</td>
</tr>
</tbody>
</table>

*Note.* *n* = 56.

**Open-ended question four.** The final open-ended question asked students to provide constructive feedback about the course itself. It asked, "How could this course be improved?" Response frequencies for this question are presented in Table 17. Similar to the second question that asked for constructive feedback about the instructor, the majority of responses (65.38%) indicated that there was no improvement necessary. The second most frequent response, which represented only a small portion of the responses (11.54%), suggested that changes should be made to the course materials. Some students commented that they wanted to see more visuals and graphics, while other students asked for more assignments to practice. Additional responses were
similar to those for second question. Three students (5.77%) commented that course concepts needed to be explained more clearly and three students (5.77%) indicated that course and/or assignment expectations needed to be explained more clearly.

Table 17
Response Frequencies for Open-Ended Question Four

<table>
<thead>
<tr>
<th>Question: How could this course be improved?</th>
<th>Frequency of Occurrence</th>
<th>% of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No improvement needed or indicated</td>
<td>34</td>
<td>65.38</td>
</tr>
<tr>
<td>Change course materials</td>
<td>6</td>
<td>11.54</td>
</tr>
<tr>
<td>Assign less and/or less challenging work</td>
<td>4</td>
<td>7.69</td>
</tr>
<tr>
<td>Explain course and/or assignment expectations more clearly</td>
<td>3</td>
<td>5.77</td>
</tr>
<tr>
<td>Explain concepts more clearly</td>
<td>3</td>
<td>5.77</td>
</tr>
<tr>
<td>More frequent or effective communication with instructor</td>
<td>2</td>
<td>3.85</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3.85</td>
</tr>
<tr>
<td>Offer course in the face-to-face format</td>
<td>1</td>
<td>1.92</td>
</tr>
</tbody>
</table>

Note. \( n = 52 \).

**Student Demographics, GPA, and Persistence**

Research Question Four asked about the relationship between the student demographic characteristics of age, gender, and race/ethnicity; student GPA; and persistence in online courses. At the end of the semester, demographic information and course completion data were collected for all 171 participants from the college’s student information system. GPA was not available for 12 students. These students were either transient students from another institution who were taking summer classes at the college or they were first-time-in-college students who had earned an alternative high school diploma or were home schooled. Students without GPA data were excluded, which resulted in 159 cases for analysis.
Descriptive statistics for student demographic variables and GPA are presented in Table 18. In terms of gender, the majority of students (68.22%) were female. This is higher than the percentage (60.8%) of female students in the overall college population. The average age of students in the study (26) was similar to the college average (25.8). The student population in this study was less diverse in terms of race/ethnicity than the college population as a whole. In this study, 62.79% of students were White compared to 54.3% in the college population. African American and Hispanic students each comprised 13.18% of the population in this study. In the college population, 18.2% of students are African American and 17% are Hispanic.

Table 18
Descriptive Statistics for Student Demographics and GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Completed Course</th>
<th>Did Not Complete Course</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>88 (68.22%)</td>
<td>17 (56.67%)</td>
<td>105 (66.04%)</td>
</tr>
<tr>
<td>Male</td>
<td>41 (31.78%)</td>
<td>13 (43.33%)</td>
<td>54 (33.96%)</td>
</tr>
<tr>
<td>Average Age (SD)</td>
<td>27 (9.78)</td>
<td>24 (6.42)</td>
<td>26 (9.29)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>6 (4.65%)</td>
<td>2 (6.67%)</td>
<td>8 (5.03%)</td>
</tr>
<tr>
<td>Black / African American</td>
<td>17 (13.18%)</td>
<td>5 (16.67%)</td>
<td>22 (13.84%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>17 (13.18%)</td>
<td>6 (20%)</td>
<td>23 (14.47%)</td>
</tr>
<tr>
<td>Multiple</td>
<td>2 (1.55%)</td>
<td>2 (6.67%)</td>
<td>4 (2.52%)</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0</td>
<td>1 (3.33%)</td>
<td>1 (.63%)</td>
</tr>
<tr>
<td>White / Caucasian</td>
<td>81 (62.79%)</td>
<td>12 (40%)</td>
<td>93 (58.49%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>6 (4.65%)</td>
<td>2 (6.67%)</td>
<td>8 (5.03%)</td>
</tr>
<tr>
<td>GPA (SD)</td>
<td>3.00 (.74)</td>
<td>2.48 (.84)</td>
<td>2.90 (.79)</td>
</tr>
</tbody>
</table>

*Note. n = 159. Frequencies and column percentages are presented for categorical variables Gender and Race/Ethnicity. Means and standard deviations are presented for continuous variables Age and GPA.*

In order to determine the relationship between age, gender, and race/ethnicity; GPA; and persistence, a logistic regression analysis was performed. Logistic regression
can be used to determine if one or more variables can predict a single dichotomous variable (Cody & Stevens, 2006). In this case, student persistence was a dichotomous variable as there were only two possible values: successfully completed the course or did not successfully complete the course. The regression model was built using all of the independent or predictor variables. The analysis revealed that the model was significant, $X^2 (9, n = 154) = 20.41, p = .03$. The model sufficiently predicted student persistence given the independent variables. However, an examination of the regression coefficients revealed that only GPA was a significant predictor of persistence, $B = .79, p = .005$. The regression coefficients for each of the independent variables are presented in Table 19.

**Table 19**

Regression Coefficients for Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.01</td>
<td>0.03</td>
<td>1</td>
<td>0.74</td>
</tr>
<tr>
<td>Female</td>
<td>-0.02</td>
<td>0.47</td>
<td>1</td>
<td>0.96</td>
</tr>
<tr>
<td>Asian</td>
<td>-1.09</td>
<td>0.91</td>
<td>1</td>
<td>0.23</td>
</tr>
<tr>
<td>Black</td>
<td>-0.48</td>
<td>0.62</td>
<td>1</td>
<td>0.44</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-0.60</td>
<td>0.61</td>
<td>1</td>
<td>0.33</td>
</tr>
<tr>
<td>Multiple</td>
<td>-1.42</td>
<td>1.09</td>
<td>1</td>
<td>0.19</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>-16.26</td>
<td>1030.20</td>
<td>1</td>
<td>0.99</td>
</tr>
<tr>
<td>Unknown</td>
<td>-1.08</td>
<td>0.93</td>
<td>1</td>
<td>0.25</td>
</tr>
<tr>
<td>GPA</td>
<td>0.79</td>
<td>0.28</td>
<td>1</td>
<td>0.005*</td>
</tr>
</tbody>
</table>

*Note. $n = 159$.
* Significant at $p = .05$.

The logistic regression analysis also generated odds ratios, which provided additional information about the relationship between GPA and persistence. Odds ratios represent the odds that a specific condition of the dependent variable will occur given a
one-unit change in the value of a continuous independent variable or a specific condition of a categorical independent variable (Panik, 2010). For GPA, the odds ratio represents the change in the odds that a student will successfully complete their online course given a one-unit change. The odds ratio for GPA was 2.20 with a 95% confidence interval of [1.27, 3.78]. This finding suggests that the odds of a student successfully completing their online course increased by 2.20 with each one-point increase in GPA. For example, a student with a 3.0 GPA would be over two times more likely to persist than a student with a 2.0 GPA. In general, students with a higher GPA were more likely to persist and successfully complete their online course.

**Summary**

The data collection and analysis in this study helped to better understand the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence and satisfaction in online courses. A chi-square analysis revealed that there was not a significant relationship between student attendance at a face-to-face orientation session and persistence. A Pearson correlation analysis along with a linear regression analysis revealed that there was not a significant relationship between instructor verbal immediacy and student persistence. A second linear regression analysis revealed a significant relationship between instructor verbal immediacy and student satisfaction. Perceived instructor verbal immediacy explained 33% of the variance in student satisfaction.

This study also examined the relationship between the student demographic characteristics of age, gender, and race/ethnicity; GPA; and persistence in online
A logistic regression analysis found that GPA was a significant predictor of student persistence. Age, gender, and race/ethnicity were not significant predictors. For every one-unit increase in GPA, students were over two times more likely to persist and complete their course. The implications of these findings as well as implications for practice and suggestions for future research are discussed in the next chapter.
Chapter Five: Discussion

Introduction

The purpose of this study was to investigate the relationship between face-to-face orientations, instructor verbal immediacy behaviors, and student persistence in online courses. Despite the prevalence and popularity of online learning, concerns remain about its quality and effectiveness (Seok, 2007; Willging & Johnson, 2009). Many of these concerns are related to student outcomes such as persistence. Recent studies have found that the persistence rate in online courses remains 5 to 15 percentage points lower than in similar face-to-face classes (Fetzner, 2013; Jaggars, Edgecombe, & Stacey, 2013).

The challenge for institutions in responding to this problem is that there is currently a lack of research on strategies to help students complete their online courses (Gunter, 2007; Nash, 2005). Based on a comprehensive review of the literature, this study examined face-to-face orientations and instructor verbal immediacy behaviors as two possible strategies to help students persist. Chapter Four presented the results of data collection and analysis. This chapter will provide additional discussion about the results and will make connections between this study and prior research. The chapter begins with a summary of the study. It is followed by a summary and interpretation of
the results. The chapter concludes with implications for practice, limitations, and recommendations for future research.

**Research Summary**

This study examined the relationship between student attendance at a face-to-face orientation session and successful completion of an online course. Several studies have found that orientations may help students complete online courses (Ali & Leeds, 2009; Clay, Rowland, & Packard, 2008; Hall, 2010). This study also explored the relationship between instructor verbal immediacy and persistence as well as the relationship between instructor verbal immediacy and student satisfaction. In the face-to-face classroom, instructor immediacy has been positively linked to cognitive learning (Kelly & Gorham, 1988), affective learning (Witt & Wheeless, 2011), and motivation (Christophel, 1990). Due to the disagreement in the published literature, this study also investigated the relationship between the demographic characteristics of age, gender, and race/ethnicity; GPA; and persistence.

The following research questions guided this study:

1. What is the relationship between student attendance at a face-to-face orientation and persistence in online courses?
2. What is the relationship between student perception of instructor verbal immediacy and persistence in online courses?
3. What is the relationship between student perception of instructor verbal immediacy and satisfaction in online courses?
4. What is the relationship between student demographics (age, gender, race/ethnicity), student GPA, and persistence in online courses?

This non-experimental, quantitative study combined both causal-comparative and correlational research methods. It took place during the second of two six-week summer terms on one campus of a medium-sized public community college located in the southeastern United States. The participants were 171 students enrolled in nine online classes selected for inclusion in the study using a purposive sampling method. Students were invited to attend one of two face-to-face orientation sessions held prior to the start of the term. During the fourth week of the six-week term, students were invited to complete a web-based survey that consisted of modified versions of Gorham’s (1988) Verbal Immediacy Scale and the college’s Student Perception of Instruction survey. At the end of the semester, course completion data and student demographic data were collected from the college’s student information system.

Summary and Interpretation of Results

Descriptive and inferential statistics were used to answer the research questions. A chi-square analysis found no significant relationship ($p = .669$) between orientation attendance and persistence. Similarly, a linear regression analysis found that student perception of instructor verbal immediacy was not a significant predictor ($p = .38$) of persistence. A Pearson correlation analysis revealed a significant positive relationship ($p < .0001$) between student perception of instructor verbal immediacy and satisfaction. Exploring this relationship further, a linear regression analysis revealed that verbal immediacy was a significant predictor of student satisfaction ($p < .0001$). Verbal
immediacy explained 33% of the variance in satisfaction. A content analysis of student responses to open-ended questions on the Student Perception of Instruction survey provided additional information about this relationship. Lastly, a logistic regression analysis found that while GPA was a significant predictor of persistence ($p = .005$), age, gender, and race/ethnicity were not. This section will offer further discussion, explanation, and interpretation of these findings.

**Orientation attendance and persistence.** While a greater percentage of students who attended orientation (85%) successfully completed their online course compared to those who did not attend orientation (81.46%), no significant relationship was found between orientation attendance and persistence. This finding is inconsistent with the results of several prior studies that found a significant positive relationship between attending an orientation and successful completion of an online course (Ali & Leeds, 2009; Clay et al., 2008; Hall, 2010; Wojciechowski & Palmer, 2005). However, in this study orientation attendance was very low. Only 20 students, or 11.7% of those enrolled in the classes included in the study, attended one of the two orientation sessions. It is possible that a greater difference in completion rates would have been observed had more students attended orientation. In studies conducted by Ali and Leeds (2009), Hall (2010), and Wojciechowski and Palmer (2005), the percentage of students who participated in orientation ranged from 54% to 71%. Orientation attendance will be discussed further in the next section.

It is also possible that the orientation sessions conducted in this study did not adequately prepare students for the online learning environment. Effective orientations should address misconceptions about online learning and provide students with the
skills needed to overcome the major barriers to persistence (Ali & Leeds, 2009; Fetzner, 2013; Ludwig-Hardman & Dunlap, 2003). With this goal in mind, the researcher developed the content of the orientation based on a comprehensive review of the published literature related to reasons for student withdrawal from online courses. However, Street (2011) argued that in addition to common factors, each institution is likely to have its own unique reasons as to why students fail to complete online courses. Data regarding student reasons for withdrawal specific to online classes at the college at which the study was conducted was not available to the researcher. While the college surveys students who withdraw from a course, all students receive the same survey regardless of delivery method. The survey asks students to select from a pre-determined list of reasons for withdrawal. The list does not include many of the reasons for dropping online courses found in the literature, such as lack of instructor interaction or technology problems.

The findings related to orientation attendance and student persistence are also unexpected given the theoretical framework that guided this study. Moore's (1993) Transactional Distance Theory holds that the distance between student and instructor in a distance learning environment is a result of not only geographic separation, but also the learning environment and the behaviors of participants. Moore argued that this transactional distance creates a “space of potential misunderstanding” between student and instructor (p. 50). This distance must be minimized in order for students to learn and be successful (Shu-Fang & Aust, 2008).

Specifically, transactional distance is created by the interplay of instructor dialogue and program structure (Moore, 1993). Instructor dialogue occurs in interactions
between student and instructor (Moore, 1993). Moore (1993) recognized that while
dialogue is often considered to be synonymous with interaction, dialogue has very
specific qualities. In Moore’s view, dialogue is positive communication that is
constructive in nature, valued by both student and instructor, and results in increased
student understanding. Program structure refers to the extent to which an educational
program, such as a course, can be responsive to a student’s individual needs (Moore,
1993). When dialogue is high and structure is low, transactional distance is low.
Conversely, when dialogue is low and structure is high, transactional distance is high.
Moore believed that even when course materials provide a high level of direction, the
absence of instructor dialogue leads students to make their own choices about how to
engage with the course, if at all. Thus, instructor dialogue is important in minimizing
transactional distance.

Course orientations have the potential to serve as a form of instructor dialogue in
that they result in greater student understanding of course requirements (Abdulla, 2012;
Jones, 2013). Orientations reduce the potential for student misunderstanding by
ensuring that their expectations are in line with those of the course instructor. This may
result in increased persistence given that students who withdraw from online courses
often indicate that they did so because the course did not meet their expectations.
These expectations often encompass inaccurate assumptions regarding the rigor of the
course as well as the time required to complete coursework (Moody, 2004; Morgan &
Tam, 2006; Nash, 2005; Packham, Jones, Miller, & Thomas, 2004). In addition, Moore
(1993) believed that program structure was relative to each individual learner’s needs.
Course orientations provide students with information about the demands of online
courses in order to help them determine if the online environment is best suited to their needs (Ludwig-Hardman & Dunlap, 2003; Tomei, Hagle, Rineer, Mastandrea, & Scollon, 2009).

However, again, it is possible that the orientation sessions conducted in this study did not adequately address course expectations and requirements. In addition, the orientation sessions did not include participation from the instructors teaching the courses included in the study. While course instructors were invited to attend the orientation sessions, many were not able to participate due to scheduling conflicts. Other studies that examined the relationship between orientation attendance and persistence included participation from course instructors (Ali & Leeds, 2009). Although Moore (1993) argued that instructor dialogue can take place even in the absence of interaction between student and instructor, it is possible that instructor participation is a required component of a successful orientation session.

Despite the findings of this study related to orientation attendance and persistence, the orientation sessions did provide some beneficial information related to persistence in online courses. During the orientation, students completed a time management activity in which they were asked to develop a weekly schedule that included all of their work and family obligations as well as time to complete their online coursework. As the courses included in the study were six weeks in length, students were instructed to schedule at least eight hours for each online course they were enrolled in. Upon completion of the activity, the researcher engaged students in discussion about their schedules. One student reported that he had never thought about scheduling time to complete his coursework because he instead preferred to approach it
as a list of tasks to be completed. The researcher reminded him that successful completion of tasks requires available time.

Less than half of the students reported that they had free time remaining after scheduling their other obligations. Several students reported having to reduce sleep time in order to accommodate all of their commitments. A number of studies have found that students in online courses often underestimate the time needed to complete coursework (Nash, 2005; Perry, Boman, Care, Edwards, & Park, 2008). Packham et al. (2004) found that students also underestimate the amount of time that work and family commitments require. Nash (2005) argued that unsuccessful online learners often have poor time management skills and as a result are unable to juggle the many demands placed on them.

Students who attended the orientation sessions also had a number of technology-related questions. They asked about submitting coursework in the learning management system, required software to complete assignments, and where to obtain technical support. Their questions are consistent with prior research by Abdulla (2012) who found that students enrolled in an online community college math class wanted training on the college’s learning management system prior to the start of the course. Technical issues remain one of the major reasons why students drop out of online courses (Aragon & Johnson, 2008; Muse, 2003; Willging & Johnson, 2009). While students may be familiar with using technology for social and recreational purposes, they are not as skilled in professional and academic uses of technology.

It is also important to note that five students who attended orientation dropped their online course during the college’s seven-day no-penalty drop period. The reasons
why these students dropped are unknown. They may have withdrawn due to a lack of interest in the course content, the inability to pay tuition, a disliking of the course instructor, or a decision to take the course in a later semester. However, it is also possible that they decided an online course was not right for them after attending orientation and learning more about the expectations, requirements, and time demands. Withdrawing from an online course during the no-penalty drop period is actually a positive outcome of an orientation. Marshall, Greenberg, and Machun (2012) argued that students need information about course requirements and expectations in order to make an informed decision about whether or not an online course is right for them. Fetzner (2013) argued that orientations can provide this type of information and when held prior to the start of classes allow students to drop their online class and switch to a face-to-face or hybrid class.

The results of this study, as well as the published literature, paint a picture of the skills and information that students need to be successful in online courses. Figure 4 provides a visual representation of this information. First and foremost, students need time management skills to adequately balance coursework, work demands, and family obligations (Ludwig-Hardman & Dunlap, 2003; Nash, 2005; Packham et al., 2004; Perry et al., 2008). Students will not be successful if they are unable to allocate time to engage in the course and complete assignments. Second, students need to fully understand the expectations and requirements of the course and the instructor (Abdulla, 2012; Ludwig-Hardman & Dunlap, 2003; Tomei et al., 2009; Wozniak, Pizzica, & Mahony, 2012). Students often have misconceptions about what online courses entail or the rigor of coursework. This leads to an expectation and experience mismatch in
which the expectations students have prior to entering an online course do not match the reality they experience in the virtual classroom. These misconceptions must be corrected and students must have accurate information about course requirements in order for them to be successful.

Figure 4
Information Needed for Successful Online Course Completion

While many would argue that today's students are highly proficient in the use of computers and technology, this is not necessarily the case in the academic context. Students need to understand how to navigate the learning management system in the
same way that students in on-campus classes must be able to find and access the physical classroom (Ali & Leeds, 2009; Scagnoli, 2001). If students cannot access course materials or assignments, they will not succeed. In addition, students need training related to other academic technology skills. This includes the use of word processing, spreadsheet, and presentation software as well as how to conduct academic research via the Internet. Lastly, students should be aware of the support resources available when they encounter problems. This includes course-related resources, such as tutoring and technical support, as well as personal resources, such as counseling services and on-campus food banks. Students who drop out of online courses frequently cite personal problems such as family, health or financial issues as the reason why they withdrew (Aragon & Johnson, 2008; Muller, 2008).

**Orientation attendance.** As was discussed in the previous section, orientation attendance was very low. Only 11.7% of students enrolled in classes included in the study attended orientation. The orientation sessions were conducted in a fully face-to-face format. The researcher selected this delivery method based on the benefits associated with it. Ali and Leeds (2009) argued that face-to-face orientations allow students to make connections with one another, which facilitates the formation of support networks that can help students overcome feelings of isolation. However, attending a face-to-face orientation can be difficult for online students. Online courses often enroll a greater number of non-traditional learners who are more likely to have external work and family obligations (Doyle, 2009; Rovai, 2003). Additionally, online learners may live a significant distance from the campus (Jaggars, 2014) and traveling for an orientation session may not be practical. Time and distance appeared to be
factors affecting orientation attendance in this study. After the researcher sent the invitation, several students responded that they were interested in attending but were unable to do so based on scheduling conflicts or transportation issues.

Further, the researcher was unable to require orientation attendance and as such student participation was optional. Several scholars have argued that orientation participation should be mandatory (Fetzner, 2013; Tutty & Ratliff, 2012; Wojciechowski & Palmer, 2005). Part of the reason for this recommendation is that students may not feel the need to attend an orientation or may fail to understand the value of doing so. For example, Moody (2004) argued that many students overestimate their computer proficiency skills. Thus, a voluntary orientation that provides training on the learning management system may not attract students. The same argument could be made for the soft skills that Fetzner (2013) suggested including in an orientation. These include study, communication, and time management skills.

Research related to other student support mechanisms such as college orientations, first year experience courses, and supplemental instruction has lead to the mantra “students don’t do optional” due to consistent low participation in voluntary experiences (Center for Community College Student Engagement, 2014, p. 33). This may also be the case with online course orientations, especially if they are not delivered in a convenient, easily accessible format.

**Student response.** In this study, student satisfaction with the orientation was high. Of students who indicated they attended orientation, 95% responded that they either agreed or strongly agreed that the orientation was helpful. This finding is consistent with prior studies about online course orientations that found student
satisfaction rates ranging from approximately 80 to 97% (Abdulla, 2012; Jones, 2013; Wozniak et al., 2012). Student satisfaction is important given that low satisfaction is one of the major reasons why students drop out of online courses (Chyung, 2001; Fetzner, 2013; Levy, 2007; Park & Choi, 2009). If students view the orientation as part of the overall course experience, this might increase their level of satisfaction with the course as a whole. Pattison (2003) found that having students work collaboratively to complete orientation activities increased overall student satisfaction with the course.

In addition, high student satisfaction with orientations further strengthens the case for making participation mandatory. In fact, other studies have found that students themselves recommend completing an orientation. In a study involving students enrolled in online courses at a university in the Midwest, Cho (2012) found strong agreement when students who completed an online orientation were asked if they would recommend it to other students. Fetzner (2013) asked community college students who withdrew from online courses what advice they would give to those considering enrolling in one. She found that one of the top pieces of advice was, “Go to the online student orientation, if possible” (p. 17).

**Verbal immediacy and persistence.** Rodriguez, Plax, and Kearney (1996) argued that no other variable has been as consistently associated with learning in the classroom as immediacy. There is a significant body of research exploring both verbal and non-verbal immediacy in the face-to-face classroom (Baker, 2004; O’Sullivan, Hunt, & Lippert, 2004; Schutt, Allen, & Laumakis, 2009). More recently, several studies have examined verbal immediacy in the online environment (Arbaugh, 2010; Baker, 2010; Hughes, 2014). This study examined the relationship between instructor verbal
immediacy and persistence in online courses. No significant relationship was observed and verbal immediacy was not found to be a significant predictor of student persistence. There is currently a lack of research examining this relationship and this study was one of the first to explore it.

Verbal immediacy was selected as a possible strategy to help students persist based on a review of the literature related to reasons for withdrawal and immediacy in online classes. Lack of instructor interaction and communication is one of the major reasons why students drop out of their online courses (Aragon & Johnson, 2008; Muller, 2008; Nash, 2005; Willging & Johnson, 2009). Aragon and Johnson (2008) found that 28% of community college students who dropped out of an online course cited lack of communication as their primary reason for withdrawing. In the online environment, students are physically separated from their instructors. Student perception of this distance can be amplified by a lack of effective instructor communication. This often leads to students feeling isolated and disengaging from their course. Bambara, Gray, Davies, and Athey (2009) found that in courses with the highest withdrawal rates students often reported having minimal interaction with their instructor and receiving little or no feedback from them.

The theoretical framework that guided this study also supported examining the relationship between instructor verbal immediacy and persistence. Moore’s (1993) Transactional Distance Theory posits that the behaviors of participants play a significant role in creating or reducing transactional distance, which is the distance between a student and instructor in a distance learning setting. Transactional distance can result in misunderstanding that negatively impacts student success (Moore, 1993). In order for
students to succeed in the online environment, this distance must be minimized (Shu-Fang & Aust, 2008). Transactional distance can be minimized with instructor dialogue, which constitutes positive communication between student and instructor that results in increased student understanding (Moore, 1993). In this view, distance between student and instructor is psychological in nature and effective instructor communication plays a key role in reducing it.

Verbal immediacy is a communication strategy that minimizes distance and increases psychological closeness between two people (Mehrabian, 1967). If instructor verbal immediacy effectively reduces perceived distance between student and instructor, it may reduce student feelings of isolation and encourage them to complete their online course. Richmond and McCroskey (2000) argued that the more an individual displays immediate communication behaviors, the more others will like and highly evaluate that individual. Applying this to the instructional context, Baker (2004) argued that when students perceive their instructor to be immediate they are more likely to be interested in their instructor and the course itself.

Several studies have found a positive relationship between instructor verbal immediacy and student motivation in the online environment (Baker, 2010; Hughes, 2014; O’Sullivan et al., 2004). Hughes’ (2014) dissertation study employed an experimental design and found that student state motivation levels were higher in courses designed and delivered with high levels of verbal immediacy. State motivation represents a student’s “attitude toward a specific class” (Christophel, 1990, p. 324). If instructor immediacy leads to more positive attitudes and increases student motivation,
it may lead to greater persistence given that students who are more motivated may be less likely to disengage and drop out of their online course.

**Verbal immediacy and student satisfaction.** This study found a significant positive relationship between instructor verbal immediacy and student satisfaction. In addition, student perception of instructor verbal immediacy was found to be a significant predictor of satisfaction. These findings are consistent with two prior studies conducted by Arbaugh (2001, 2010) that involved students enrolled in online MBA classes. He found that instructor verbal immediacy was a significant predictor of student satisfaction. Conversely, these findings differ from those of Shu-Fang and Aust (2008) who found that verbal immediacy was not a significant predictor of satisfaction despite finding a significant positive correlation.

The results related to verbal immediacy and student satisfaction are consistent with this study’s theoretical framework. Moore’s (1993) Transactional Distance Theory holds that the distance between student and instructor in a distance learning setting is psychological in nature and can be reduced by effective instructor communication (Moore, 1993). Verbal immediacy is a communication strategy that reduces psychological distance between communicators (Mehrabian, 1967). Verbal immediacy may reduce transactional distance, which may lead to increased student satisfaction. While Moore’s theory was primarily focused on student learning and success, the results of this study suggest that transactional distance may play a role in student satisfaction in online courses.

The findings of this study are also congruent with prior studies that have explored the relationship between instructor interaction and student satisfaction. Strong, Irby,
Wynn, and McClure (2012) found that one of the major contributors to student satisfaction in online courses was instructor presence and interaction. Similarly, Kuo, Walker, Belland, and Schroder (2013) found that instructor-student interaction was a significant predictor of satisfaction in online undergraduate and graduate courses. They found that the more interaction faculty have with students, the more satisfied students are with the experience. This study, as well as prior research, suggests that effective instructor communication is strongly linked to student satisfaction.

The findings of this study are important given the relationship between student satisfaction and persistence. Several studies have found that low satisfaction is a primary reason given by students who drop out of online classes (Fetzner, 2013; Levy, 2007). In a study involving students who withdrew from an online master's program, Chyung (2001) found that almost half of students cited low satisfaction as their primary reason for leaving. Both Levy (2007) and Park and Choi (2009) observed significant differences in satisfaction scores between students who completed and failed to complete online courses. Levy (2007) called satisfaction a “major factor” in a student’s decision to withdraw or persist in an online class (p. 198). Park and Choi argued that satisfied students are simply less likely to drop out. Thus, strategies that increase student satisfaction are inevitably linked to persistence.

Student responses to open-ended questions on the Student Perception of Instruction survey provided additional insight into the relationship between instructor immediacy, communication, and satisfaction. When asked what the professor does well, the overwhelming majority of responses were related to instructor communication. The most frequent response (39.06%) was related to the instructor clearly explaining course
concepts. Students appreciated instructors who could communicate complex course concepts in a way that they could understand. The second most frequent response (26.56%) was related to the instructor clearly communicating course or assignment expectations. Students spoke of instructors who gave detailed directions for assignments or provided checklists to complete weekly tasks. These findings are consistent with prior research conducted by Abdulla (2012) and Marshall et al. (2012) who found that the information students wanted most about online courses was related to assignments, participation, and grading.

Over one quarter of responses were directly related to items identified as verbal immediacy behaviors on Gorham’s (1988) Verbal Immediacy Scale. Students responded that instructors communicated frequently (15.63%) and provided helpful feedback on assignments (14.06%). Students commented that they felt instructors who exhibited these behaviors were engaged and involved in the course. These responses relate to the Verbal Immediacy Scale items, “Has initiated conversations with me outside of the course,” and, “Provides feedback on my individual work through comments on papers, discussions, etc.” (Gorham, 1988, p.44). These student responses highlight the importance of instructor communication in the online environment and the relationship to student satisfaction.

When asked how the professor could improve, the majority of responses (55.77%) indicated that no improvement was needed. However, the next four most frequent responses were communication-related. Students indicated that instructors needed to communicate more frequently or effectively (9.62%), do a better job explaining course concepts (9.62%), better explain course and/or assignment
expectations (9.62%), or provide more timely or more effective feedback (9.62%).

Again, two of these responses are directly related to verbal immediacy behaviors included as items on Gorham’s (1988) scale.

It is also interesting to examine student responses to the question, “What helped you learn in this course?” The majority of student responses were not related to instructor communication. Rather, they were related to elements of course design, course materials, or personal study strategies. A small percentage (8.93%) of responses indicated that interactions with the course instructor helped students learn. This finding is particularly interesting given the disagreement in the published literature regarding the relationship between instructor immediacy and learning.

Several scholars have found a significant relationship between instructor verbal and non-verbal immediacy and student learning (Arbaugh, 2010; Baker, 2004; Gorham, 1988; Kelly & Gorham, 1988; Witt & Wheeless, 2001). However, other studies have found either no significant relationship or that immediacy was not a significant predictor of learning (Andersen, 1979; Baker, 2010; Titsworth, 2001). While the relationship between immediacy and learning is beyond the scope of this study, these findings highlight the need for further research on this topic.

**Student demographics, GPA, and persistence.** Due to the disagreement in the published literature, this study also explored the relationship between the student demographic characteristics of age, gender, and race/ethnicity; GPA; and persistence in online courses. GPA was found to be a significant predictor of persistence, while age, gender, and race/ethnicity were not. The higher a student’s GPA upon entry into an online course, the more likely they are to successfully complete it. The findings related
to GPA are consistent with numerous prior studies (Aragon & Johnson, 2008; Cochran, Campbell, Baker, & Leeds, 2013; Diaz, 2002; Dupin-Bryant, 2010; Harrell & Bower, 2011; Morris, Wu, & Finnegan, 2005; Muse, 2003). GPA is a particularly promising predictor variable given the volume of research that has found it to be a significant predictor of persistence in online courses.

While one might predict that younger students would fare better in online classes due to their familiarity with technology, the findings of this study as well as prior research do not support this (Aragon & Johnson, 2008; Cochran et al., 2013; Cheung & Kan, 2002; Levy, 2007; Park & Choi, 2009; Tello, 2007). Age does not appear to be a significant predictor of student persistence. Similarly, this study as well as prior research found that neither gender (Kemp, 2010; Levy, 2007; Park & Choi, 2009; Tello, 2007) nor race/ethnicity (Aragon & Johnson, 2008) are significant predictors of student persistence in online courses.

Discovering variables that accurately predict student persistence could help colleges identify and assist their most at-risk students. Dupin-Bryant (2004) and Harrell and Bower (2011) recommended that institutions use predictor variables in an effort to be proactive and identify the students who are most likely to withdraw from their online courses. Colleges can use this information to deliver targeted advising and intervention strategies to these students. Research about the characteristics of completers and non-completers can also help institutions build a profile of the successful online learner. This can be used to help advisors direct students toward the class format that is most appropriate for them. Further suggestions and implications for practice are presented in the next section.
Implications for Practice

Although this study found no relationship between orientation attendance and student persistence in online classes, there is ample evidence to support colleges developing orientations for new online students or those with minimal experience in the online environment. Orientations can help correct student misconceptions about online learning and convey course expectations and requirements (Abdulla, 2012; Packham et al., 2004). Orientations should provide students with technical skills related to the learning management system and the software needed to complete academic assignments (Ali & Leeds, 2009; Scagnoli, 2001). They should also address study and time management skills (Fetzner, 2013; Ludwig-Hardman & Dunlap, 2003). Time management skills are particularly important given that these are often lacking in unsuccessful online learners (Nash, 2005). The students in this study struggled to find time for all of their school, work, and life commitments.

Colleges should consider making orientation participation mandatory, as students may not attend voluntary orientations (Tutty & Ratliff, 2012). While there are benefits to conducting face-to-face orientation sessions, online orientations allow for greater flexibility and better accommodate online learners who may have busy schedules or be located a significant distance from campus. In this study, voluntary orientation attendance was very low. Several students indicated that they had scheduling conflicts or transportation issues that prevented them from attending an on-campus orientation session. Wozniak et al. (2012) advocated for online orientations that mirror actual online courses. This allows students to practice being an online learner in a relatively risk-free environment.
Colleges should conduct orientations well in advance of the start of classes. This allows students to learn more about the online learning environment and drop without penalty if they decide it is not for them (Fetzner, 2013). They can then register for a format that is better suited to their needs. Colleges should also consider including advising staff in the orientation. This would allow students to easily transition to a face-to-face or hybrid class if they so choose. In addition, it may encourage students who have changed their mind about online courses to switch to a different format rather than drop out altogether.

Orientation sessions should be designed with input from faculty, staff, and students (Bozarth et al., 2004). Faculty can provide information about student problems they observe in the classes they teach. Where possible, faculty should participate or have a presence in the orientation session. This facilitates dialogue between student and instructor. Students can inform the design of orientations by sharing the challenges they experience in online classes. Colleges should pay particular attention to the specific reasons that students give for withdrawing from online courses at their institution. Orientations can be used to provide students with the skills needed to overcome these barriers to persistence.

There is ample evidence to suggest that faculty teaching online courses need training. Many faculty lack experience as online learners and need training on course design and facilitation strategies (Bocchi, Eastman, & Swift, 2004; Schwartz & Haynie, 2013). This study found that instructor verbal immediacy was a significant predictor of student satisfaction. It also revealed that there is a strong connection between instructor communication and student satisfaction. In addition, prior research has found that lack
of communication is a major reason why students drop out of online courses (Aragon & Johnson, 2008; Nash, 2005; Muller, 2008; Willging & Johnson, 2009). The results of this study, as well as those of prior research, suggest that faculty training should focus on effective communication strategies in online classes.

Specifically, faculty training should emphasize verbal immediacy behaviors given that immediate communication represents effective communication. Verbal immediacy in the online classroom involves communication behaviors such as initiating communication with students, using humor and personal examples, addressing students by name, using inclusive pronouns, and providing prompt individualized feedback. Prior research has demonstrated that it is relatively simple to train faculty about immediacy behaviors. Jensen (1999) found a significant difference in student perceptions of instructor verbal immediacy after faculty had participated in a 90-minute training session.

While more research needs to be done on variables that can be used to predict persistence in online classes, GPA shows great promise. This study, as well as prior research, has demonstrated its effectiveness in predicting student completion of online courses. Institutions should consider using variables, such as GPA, to identify students most at risk of dropping out of their online courses. This information can be used to deliver targeted interventions (Harrell & Bower, 2011). For example, students with a low GPA who express a desire to enroll in online courses could be required to attend an orientation session (Harrell & Bower, 2011). These students could also be provided with access to support resources such as peer coaching and tutoring. Further, colleges can
monitor these students more closely and intervene when they begin to struggle rather than waiting until they drop out.

**Limitations**

While this study produced useful findings, the research design and implementation had several limitations that limit the conclusions that can be made as well as the generalizability of results. This non-experimental study employed both causal-comparative and correlational research methods. These methods are appropriate when it is not practical or possible to manipulate the independent variable (Gall, Gall, & Borg, 2005). However, Gall et al. (2005) noted that it is difficult to establish causality with any degree of certainty when using these methods, as confounding variables are not controlled. As a result, alternative interpretations of the findings cannot be ruled out (Gall et al., 2005).

This study found a significant relationship between instructor verbal immediacy and student satisfaction as well as between GPA and persistence in online classes. However, there were important confounding variables that were not controlled. It is possible that students with a higher GPA had previously completed a greater number of online courses than students with a lower GPA. Past successful completion of an online course has been shown to have a positive impact on future attempts (Cochran et al., 2013; Harrell & Bower, 2011). In terms of student satisfaction, it is possible that faculty who were perceived as more immediate also made use of other effective teaching strategies that contributed to a higher level of satisfaction. While the findings of this study suggest that verbal immediacy behaviors may be a beneficial teaching strategy in
online classes and GPA may be a good predictor of student persistence, practitioners must exercise caution when implementing these strategies.

Another limitation was the method used to select participants. The participants were the students enrolled in the nine online classes selected for inclusion in the study. This study employed a purposive sampling method known as maximum variation sampling to select classes for inclusion. The researcher utilized this method so that orientation attendance and verbal immediacy could be examined in classes with low, medium, and high persistence rates. However, Gall et al. (2005) and Wiersma and Jurs (2009) noted that this method limits the generalizability of results given that the participants are not likely to be representative of the larger population. The demographic characteristics of the participants in this study were neither representative of the college population nor were they representative of the larger population of online higher education learners. The students in this study were mostly female, mostly white, and had an average GPA of 3.0.

In addition to the sampling method used, the semester during which the study was conducted likely influenced the results. The study was conducted during the second of two six-week summer terms. The community college where the study was conducted enrolls a significant number of transient students from selective state universities during the summer semester. They tend to have a higher GPA and perform better academically. These students may have had an impact on the results of this study by increasing persistence rates.

Another limitation to this study was that past student experience with online courses was not controlled. Again, students who have successfully completed an online
course in the past are more likely to be successful at future attempts (Cochran et al., 2013; Harrell & Bower, 2011). The researcher attempted to limit participant experience with online classes by selecting courses that are typically taken during a student’s first semester in college. However, students often take courses out of sequence. For example, students sometimes delay taking mathematics courses. As such, students enrolled in an online introductory math course may have already completed a majority of their other degree requirements and have experience taking online courses. In addition, the college serves returning adult learners who are either working on a second degree or credential or have changed academic programs. While these students may enroll in introductory classes for their new degree program, they may already have experience with online classes from prior coursework.

Low attendance at the orientation sessions was also a significant limitation of this study. Only 11.7% of students enrolled in the classes selected for inclusion in the study attended an orientation session. This study found no significant relationship between orientation attendance and student persistence. However, it is possible that a greater difference in completion rates would have been observed had more students attended orientation. The low attendance was partially a result of the researcher not being able to require orientation attendance. Attending the orientation session was optional. In addition, the researcher decided to conduct face-to-face orientation sessions. This was due to the social benefits of face-to-face orientations (Ali & Leeds, 2009). However, this limited the number of students who were able to attend. Some students were unable to attend due to scheduling conflicts, while others were unable to attend due to being located too far from the campus.
The survey conducted as part of this study had a response rate of 43.27%. This is considered low as Rubin and Babbie (2009) suggested that a response rate of 50% is the minimum acceptable for analysis and reporting. Low survey response rates introduce the possibility of nonresponse bias. Wiersma and Jurs (2009) argued that the problem with low response rates is that the data may be biased since it cannot be assumed that the respondents represent a random sample of study participants. Using the results of the survey, this study found a significant relationship between instructor verbal immediacy and student satisfaction. As was discussed in the last chapter, student satisfaction scores were high. It is possible that only those students who were satisfied with the course and their instructor chose to complete the survey. Dissatisfied students may have simply ignored the requests from the researcher and their instructor to complete the survey. The results of the survey may have been different if more students completed it.

**Recommendations for Future Research**

Additional research is needed to better understand the relationship between orientation attendance, instructor verbal immediacy, and persistence in online classes. This study should be replicated with changes to the methods and procedures in order to address the limitations discussed in the previous section. Instead of selecting specific classes for inclusion, a future study should target a sample of incoming students who are enrolling in an online class for the first time. This research design would minimize any potential impact of prior online course completion. Prior completion of online courses has been shown to be a significant predictor of success in future attempts (Cochran
et al., 2013; Harrell & Bower, 2011). In addition, the study should make use of an interactive, asynchronous online orientation. Conducting an online orientation may encourage more students to participate, as it would eliminate the time and geographic barriers that kept some students from attending the face-to-face orientation in this study. Alternatively, students could be invited to attend either an online or a face-to-face orientation session. This approach would facilitate an examination of the effectiveness of different orientation delivery methods. Ali and Leeds (2009) used a similar approach in their study investigating the relationship between orientation attendance and persistence in online courses.

In this study, the relationship between instructor verbal immediacy and persistence was measured using class verbal immediacy scores and class persistence rates. This made the class, rather than the student, the unit of analysis. A future study should ask students to complete Gorham’s (1988) Verbal Immediacy Scale and self-report their both current enrollment status as well as their intention to persist. This would allow the relationship between verbal immediacy and persistence to be examined on the level of the individual student. Other studies examining persistence in online courses have asked students to self-report their enrollment status (Hall, 2010; Morgan & Tam, 2006). Another approach would be to send one survey form to students who successfully completed an online course and another survey form to students who did not successfully complete an online course. This procedure was used by Levy (2007) in a study investigating the relationship between locus of control, satisfaction, and persistence in online courses.
In addition to replicating this study, more research is needed to determine what constitutes an effective orientation. Future research should ask both successful and unsuccessful online students what information would be beneficial to them in an orientation session. A similar study could be conducted with experienced online faculty. Qualitative research could provide greater detail about the types of information that students need in order to be successful in online classes.

As this was one of the first studies to explore the relationship between verbal immediacy and persistence in online classes, more research is needed on this topic. This study should be replicated with larger sample sizes and with different populations of students. Future studies should also examine the relationship between individual instructor immediacy behaviors and student persistence. For example, a study could explore the relationship between timeliness and quality of instructor feedback and student persistence. Additional studies are also needed to explore the relationship between verbal immediacy and learning in online classes.

Orientations and verbal immediacy are just two possible strategies that may help colleges address the persistence problem. There remains a lack of research on viable strategies to help students complete their online classes. Scholars should focus their research efforts on turning best practices into research-based strategies to help students persist in online classes.

**Summary**

Persistence remains a problem in online classes with recent studies showing that persistence rates remain 5 to 15 percentage points lower than in face-to-face classes.
There is a lack of research on specific strategies to help students complete online courses (Gunter, 2007; Nash, 2005). This study examined face-to-face orientations and instructor verbal immediacy behaviors as two possible strategies to help students persist. Inconsistent with prior research, this study found no significant relationship between orientation attendance and completion. This study was one of the first to examine the relationship between verbal immediacy and persistence in online courses. No significant relationship was observed.

This study also explored the relationship between instructor verbal immediacy and student satisfaction. Verbal immediacy was found to be a significant predictor of satisfaction. This is consistent with prior research and is an important finding given the connection between student satisfaction and persistence (Levy, 2007; Park & Choi, 2009). Due to the disagreement in the published literature, this study also examined the relationship between the student demographic characteristics of age, gender, and race/ethnicity; GPA; and persistence. Consistent with prior research, only GPA was found to be a predictor of persistence.

Based on the results of this study, as well as prior research, colleges should consider implementing mandatory orientations for students who are new to the online learning environment. The results of this study related to verbal immediacy, communication, and satisfaction reinforce the need for colleges to provide faculty with training on effective communication in online classes. Training on immediacy behaviors can help faculty communicate more effectively with their students. Colleges should also consider using predictor variables, such as GPA, to provide targeted intervention to at-risk students (Harrell & Bower, 2011).
More research is needed to determine the effectiveness of orientations as a strategy to help students persist. Future studies should also focus on discovering the types of information that should be included in an orientation. As this study was one of the first to examine instructor verbal immediacy and persistence in online classes, more research is needed to better understand this relationship. Future research should also focus on the relationship between instructor verbal immediacy and learning in online classes. There remains a lack of research on ways to help students complete online classes. Additional research is needed to find strategies that can help students persist and be successful in the online environment.
References


Appendices
May 14, 2015

Donald Painter, Jr.,

Dear Mr. Painter,

On behalf of the Institutional Review Board (IRB) of [College], I am pleased to inform you that your study protocol titled, *The Impact of Face-to-Face Orientations and Instructor Verbal Immediacy Behaviors on Persistence in Online Courses*, has been approved. The IRB determined that your study qualified for expedited review based on federal expedited category number 7. You have been approved to conduct your study on the [Campus of College] and collect data using the methods outlined in your protocol document. Please note that your approval is effective May 11, 2015 and will expire May 11, 2016.

You are reminded that you are responsible for adhering to the method and protocol of obtaining informed consent as approved by [College]. You must submit any future changes to the study protocol to the IRB for review and approval prior to implementation. You are also responsible for adhering to the Investigator Responsibilities as outlined in the [College] Human Research Protection Procedure.

If you have any questions regarding this approval, please call [Contact Information].

Sincerely,

[Signature]

Kenneth [Name]
Vice President for Academic Affairs
Chair, Institutional Review Board
June 4, 2015

Donald Painter, Jr.
L-CACHE - Leadership, Counseling, Adult, Career & Higher Education
Tampa, FL 33612

RE: Expedited Approval for Initial Review
IRB#: Pro00022152
Title: The Impact of Face-to-Face Orientations and Instructor Verbal Immediacy Behaviors on Persistence in Online Courses


Dear Mr. Painter:

On 6/4/2015, the Institutional Review Board (IRB) reviewed and APPROVED the above application and all documents outlined below.

Approved Item(s):
Protocol Document(s):
Dissertation Proposal.pdf

Consent/Assent Document(s)*:
Informed Consent - Student Orientation-6-2-15.pdf.pdf
Informed Consent - Online Student Survey-6-2-15.pdf

**Granted a waiver

*Please use only the official IRB stamped informed consent/assent document(s) found under the "Attachments" tab. Please note, these consent/assent document(s) are only valid during the approval period indicated at the top of the form(s). **Waivers are not stamped.

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review...
category:

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your study qualifies for a waiver of the requirements for the documentation of informed consent as outlined in the federal regulations at 45CFR46.117(c) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) That the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) That the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

[Signature]

Kristen Salomon, Ph.D., Vice Chairperson
USF Institutional Review Board
Appendix B: Sample Faculty Study Participation E-mail

Dear <Instructor name>,

I am conducting research for a doctoral dissertation at the University of South Florida. The purpose of my study is to investigate the impact of face-to-face orientations and instructor verbal immediacy behaviors on student persistence in online classes. The goal is to find strategies that institutions can use to help students be successful in their online classes.

I am asking you for permission to include your class in the study. You have been selected for possible inclusion as you are teaching an online course. You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty if you stop taking part in this study. Your decision to participate or not to participate will not affect your job status in any way.

If you consent to have your course included in the study, it would mean the following:
• Your students will be invited to attend one of two face-to-face orientation sessions to be held prior to the start of the semester. You are also encouraged to attend the orientation sessions if your schedule permits.
• You are asked to share information about the orientation on the News page of your course and consider giving students a small amount of extra credit for attending.
• Your students will be invited to complete an online survey during the fourth week of the term. The survey includes modified versions of Gorham’s (1988) Verbal Immediacy Scale and the College’s Student Perception of Instruction survey. A copy of the survey is attached to this email for your review.
• You are asked to encourage your students to complete the survey.
• At the end of the semester, demographic and completion data will be obtained from the College’s student information system about each of your students.

In order to protect confidentiality of faculty and students, data obtained will not be recorded together with identifying information. Further, the data will be used solely for the purpose of this research study.

Please let me know if you agree to participate by replying to this email. If you have any questions about this study, please contact me at dpainter@<site>.edu or Dr. Kathleen King, my co-major professor, at kathleenking@usf.edu. This study has been approved by the Institutional Review Boards of both USF and <Site> (Pro # 0002215).

Sincerely,
Donald Painter
Doctoral Candidate
Appendix C: Sample Student Orientation Invitation E-mail

Dear Student,

You are receiving this e-mail because you have enrolled in an online class during the summer semester. In order to orient yourself to the online environment and gain tools to be successful, please consider attending one of two orientation sessions. Sessions will be held at the days, times, and locations listed below.

Session 1 – Saturday, 6/20, 10:00 – 11:30 a.m., Room
Session 2 – Monday, 6/22, 6:00 – 7:30 p.m., Room

These interactive sessions will cover topics such as time management, online course expectations, using <LMS>, and college resources. Snacks will be provided. In addition, attendees will have a chance to win one of two $50.00 gift cards being given away at each session.

Please RSVP for the session of your choice by replying to this e-mail.

I am conducting this orientation as part of a research study for a doctoral dissertation at the University of South Florida. The purpose of my study is to investigate the impact of face-to-face orientations and instructor verbal immediacy behaviors on the persistence rate in online classes. The goal is to find strategies that institutions can use to help students be successful in their online classes.

If you have any questions about this study, please contact me at dpainter@<site>.edu or Dr. Kathleen King, my co-major professor, at kathleenking@usf.edu. This study has been approved by the Institutional Review Boards of both USF and <Site> (Pro # 0002215).

Sincerely,
Donald Painter
Doctoral Candidate
Appendix D: Orientation Session Outline

1. Welcome
2. Icebreaker Activity
3. Expectations and Requirements of an Online Course
   a. Time Commitment
   b. First Week “Attendance”
   c. Course Participation Requirements
   d. Typical Activities
   e. Study Skills
4. Time Management
   a. Weekly Schedule Activity
   b. Discussion
   c. Tips and Strategies
5. Getting Started in an Online Course
   a. Technological Requirements
   b. LMS Student Orientation
   c. Accessing the LMS
   d. Accessing a Course
   e. The News Page
   f. Getting Started Information
   g. Course Syllabus, Course Schedule, and Course Policies
   h. Checking E-mail
6. Common Online Course Activities
   a. Viewing Content
   b. Participating in a Discussion
   c. Submitting Work to a Dropbox
   d. Taking Quizzes
   e. Asking for Help
7. Support Resources
   a. Technology Help Desk
   b. Tutoring
      i. On-Campus
      ii. Online
   c. Libraries
   d. Help Center / Counseling Services
8. Strategies for Success Activity
9. Question and Answer Session
Appendix E: Sample Student Survey Participation E-mail

Dear Student,

Please take 20 minutes to complete an anonymous survey to provide feedback about your course and your instructor. Your participation will help me to better understand student experiences in online courses.

Your participation in this survey is voluntary. Your responses are anonymous and the researcher will not retain any identifying information. The results will not be shared with your professor until after final grades have been posted.

Click here to access the survey – <Survey Link>

After completing the survey, you will be directed to a separate form where you can enter a drawing to win one of two $50 gift cards.

I am conducting this survey as part of a research study for a doctoral dissertation at the University of South Florida. The purpose of my study is to investigate the impact of face-to-face orientations and instructor verbal immediacy behaviors on the persistence rate in online classes. The goal is to find strategies that institutions can use to help students be successful in their online classes.

If you have any questions about this study, please contact me at dpainter@<site>.edu or Dr. Kathleen King, my co-major professor, at kathleenking@usf.edu. This study has been approved by the Institutional Review Boards of both USF and <Site> (Pro # 0002215).

Sincerely,
Donald Painter
Doctoral Candidate
Appendix F: Original Verbal Immediacy Scale

1. Uses personal examples or talks about experiences she/he has had outside of class.
2. Asks questions or encourages students to talk.
3. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.
4. Uses humor in class.
5. Addresses students by name.
6. Addresses me by name.
7. Gets into conversations with individual students before or after class.
8. Has initiated conversations with me before, after or outside of class.
9. Refers to class as "my" class or what "I" am doing.*
10. Refers to class as "our" class or what "we" are doing.
11. Provides feedback on my individual work through comments on papers, oral discussions, etc.
12. Calls on students to answer questions even if they have not indicated that they want to talk.*
13. Asks how students feel about an assignment, due date or discussion topic.
14. Invites students to telephone or meet with him/her outside of class if they have questions or want to discuss something.
15. Asks questions that have specific, correct answers.*
16. Asks questions that solicit viewpoints or opinions.
17. Praises students' work, actions or comments.
18. Criticizes or points out faults in students' work, actions or comments.*
19. Will have discussions about things unrelated to class with individual students or with the class as a whole.
20. Is addressed by his/her first name by the students.

*Presumed to be non-immediate. Item scoring reflected for analyses.

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2 Gorham's (1988) Verbal Immediacy Scale has been previously published in *Communication Education*, 37(1), 40-53, and has been reproduced with permission from Routledge / Taylor & Francis Group.
Appendix G: Modified Verbal Immediacy Scale

Please think about your professor in your online class and respond to the statements using the following scale: Very Often, Often, Sometimes, Almost Never, Never.

1. Uses personal examples or talks about experiences she/he has had outside of class.
2. Asks questions or encourages students to talk.
3. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her plan.
4. Uses humor in the course.
5. Addresses students by name.
6. Addresses me by name.
7. Gets into conversations with individual students outside of the course.
8. Has initiated conversations with me outside of the course.
9. Refers to the course as "my" course or what "I" am doing.*
10. Refers to the course as "our" course or what "we" are doing.
11. Provides feedback on my individual work through comments on papers, discussions, etc.
12. Calls on students to answer questions even if they have not indicated that they want to respond.*
13. Asks how students feel about an assignment, due date or discussion topic.
14. Invites students to telephone, chat, or meet with him/her during office hours if they have questions or want to discuss something.
15. Asks questions that have specific, correct answers.*
16. Asks questions that solicit viewpoints or opinions.
17. Praises students' work, actions or comments.
18. Criticizes or points out faults in students' work, actions or comments.*
19. Will have discussions about things unrelated to the course with individual students or with the class as a whole.
20. Is addressed by his/her first name by the students.

*Presumed to be non-immediate. Item scoring reflected for analyses.
Appendix H: Original Student Perception of Instruction Survey

Please respond to the statements using the following scale: Almost Always, Often, Sometimes, Almost Never, or N/A (Not Applicable).

1. The professor knows the subject well.
2. The professor explains ideas clearly.
3. The professor shows a genuine interest in teaching the class.
4. The professor is well prepared for class.
5. The professor answers questions effectively.
6. The professor uses class time effectively.
7. The professor encourages all students to participate in class.
8. The professor makes it clear what his/her office hours are and where his/her office is.
9. The professor is available to answer questions during posted office hours.
10. The professor’s tests and assignments relate to course objectives listed on the Basic Course Information (BCI).
11. The professor returns assignments in a reasonable amount of time.
12. The professor has clearly explained what is required to earn a particular grade.
13. The professor treats students in a respectful manner.
14. The professor uses the textbook effectively.
15. The professor begins class at the scheduled time.
16. The professor ends class at the scheduled time.
17. I would consider taking a course from this professor again.

Please respond to the following questions:
18. What does the professor do well?
19. How could the professor improve?
20. What helped you learn in this course?
21. How could this course be improved?
Appendix I: Modified Student Perception of Instruction Survey

Please respond to the statements using the following scale: Almost Always, Often, Sometimes, Almost Never, or N/A (Not Applicable).

1. The professor knows the subject well.
2. The professor explains ideas clearly.
3. The professor shows a genuine interest in teaching the course.
4. The professor is well prepared.
5. The professor answers questions effectively.
6. The professor encourages all students to participate in class.
7. The professor makes it clear what his/her office hours are and where his/her office is.
8. The professor is available to answer questions during posted office hours.
9. The professor’s tests and assignments relate to course objectives listed on the Basic Course Information (BCI).
10. The professor grades assignments in a reasonable amount of time.
11. The professor has clearly explained what is required to earn a particular grade.
12. The professor treats students in a respectful manner.
13. The professor uses the textbook effectively.
14. I would consider taking a course from this professor again.

Please respond to the following questions:
15. What does the professor do well?
16. How could the professor improve?
17. What helped you learn in this course?
18. How could this course be improved?

If you attended the orientation session, please answer question 19.

For the following question, please indicate your level of agreement with the statement using the following scale: Strongly Agree, Agree, Neither Agree Nor Disagree, Disagree, or Strongly Disagree.

19. I found the orientation session to be helpful.