

**WHAT IMPACT DOES ONLINE HIGHER EDUCATIONAL LEARNING
HAVE ON ADULTS' PREFERRED LEARNING STYLES?**

Doctoral Dissertation Research

Submitted to the
Faculty of Argosy University, Phoenix Campus
College of Education

In Partial Fulfillment of
the Requirements for the Degree of

Doctor of Education

by

Stephanie Ann Massey

September 2014

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ABSTRACT

The focus of this study was to exhibit how the learning styles of adult students can have a direct impact on a student's ability to succeed in an online learning program. Adult students attending online programs have not recognized the importance of knowing their individual learning styles. Universities looking for ways to retain satisfied students in online programs should contemplate improving a student's learning experience by examining how a university's online education program affects a student's learning preference. This study is an examination of the impact online learning has on adult students' learning styles and also an exploration of the benefits of universities offering a tutorial to new students registering online for the first time. Therefore, this qualitative phenomenological study was conducted to uncover the impact online learning has on the learning styles of seven online students attending Concordia University Chicago and thirteen students attending other online universities. Thereby, three instruments were used to uncover this phenomenon. This study heightened the body of knowledge related to online learning in higher education and the adult students' learning preferences. The results showed that learning styles of adult students could be influenced either positively or negatively while studying online, positively if a student is aware of his or her learning style and negatively if a student does not recognize his or her abilities or learning preferences. Also noted, the study showed 65% of the online student participants' utilized multimodal learning preference while learning online. Although rich data were introduced, additional studies with a larger sample size could further support these findings.

Keywords preferred learning styles, online learning environment, web-based instructional learning, internal locus of control, external locus of control, and pedagogy

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DEDICATION

This research study is dedicated to Elohim (I AM that I AM) and the only begotten Son, Emmanuel the Christ who loves unconditionally. It was through much prayer and faithfulness that Emmanuel the Christ and Elohim the Father directed me through the completion of this research project. It is with deep sincerity, respect, and love that this research study also is dedicated to my devoted mother, Maxine and resilient father, Johnnie who taught me the importance of education because through the years both have been my primary teachers concerning the fundamentals of life, giving guidance and advise while cheering me on in the course of my achievements. Maxine and Johnnie taught me how to be persistent and to persevere while watching them successfully prevail throughout life's challenges. The final dedication goes to my loving faithful, and supportive family: my husband John, children Charles and Melanie, and grandson Nicholas. My additional family members include my brothers Johnny and Robert, sisters Janet and Phyllis, and niece Tiffany who understood why I often was not mentally or physically present during the family gatherings but instead spent long endless hours away from family and friends while working toward completion of this research project. I sincerely appreciate the love, understanding, and ongoing support shown by family and friends during the pursuit of my educational endeavor.

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CHAPTER ONE: INTRODUCTION

The term e-learning (i.e., electronic learning) originated nearly fifteen years ago. Launching in October 1999, it was appropriately announced during a professional computer-based training systems seminar in Los Angeles, California (www.leerbeleving.nl, n.d.). E-learning reformation, also considered distance learning, virtual learning, and now online learning, began primarily with other educational modernizations such as indicated by Billings and Moursund (1988) “(a.) the invention of reading and writing, (b.) the emergence of the profession of teacher/scholar, (c.) the development of moveable type (such as a typewriter), and finally (d.) the development of electronic technology” (p. 13). Súilleabháin (2003) described, “e-Learning as the use of network technology to design, deliver, select, administer, and extend learning” (para. 6). Present day e-learning, entitled online learning, has become a dominant piece in higher education learning, since universities have determined that online learning can increase the student population and a university’s revenue (Súilleabháin, 2003).

Online learning can be described as an accessible dispersed educational environment where studying and learning can occur by utilizing instructional tools. These pedagogical tools are assisted through the use of both Internet and web-based technologies, which help to facilitate the learning process that includes substantial engagement and collaboration (Dabbagh & Bannan-Ritland, 2005). Even though there have been ongoing studies about adult online learning behaviors, there have been few research projects conducted on the effects of higher education learning on an adult’s learning style. Therefore, this study was conducted to provide a detailed account of the importance of knowing how an adult’s preferred learning style plays a principal role in

the progression of student achievement while studying in an online degree program. In studying journal articles about the topic of adult students' preferred learning styles, this research was also conducted to identify the specific learning styles required to function successfully in an online learning environment and complete a degree program.

Scholars have noted that information regarding online learning is still evolving since a substantial number of the studies were conducted utilizing insignificant sample sizes in qualitative inquiry (Braun, 2008). A significant fact worth mentioning is that online studying, although a fairly new technological means of learning, is thought to be a highly supportive vehicle beneficial to adult learners who had not previously considered going to college to earn a degree or returning to school to obtain an advanced degree (Braun, 2008). Now, however, with the accessibility and flexibility online learning allows, access to higher education achievement is openly available to both young and older adults with full time jobs. Attending higher education institutions online gives adult workers the opportunity to work full-time while attending school online full-time.

Universities continually looking for ways to increase enrollment are progressively developing online learning degree programs for the accessibility and accommodating environment it offers adult learners wanting to return to school. Castle and McGuire (2010) agreed, "students from a variety of backgrounds can access educational opportunity, allowing for vast dissemination of education" (p. 36). Technological advances have allowed these ongoing improvements to the latest higher education learning trend called online learning, which requires an adult learner to become responsible for his or her own learning (Drennan, Pisarski, & Kennedy, 2005). Greenberg (2009) indicated "online courses should foster greater student responsibility in

engaging with course material and instructional tasks, increased involvement in tracking their own performance and progress, and an increase in self-direction using the freedom of the environment” (pp. 6-7).

The Problem

Current adults enrolling in higher education online degree programs have no concept of what the online learning format entails (Dyrbye, Cumyn, Day, & Heflin, 2009). The study of several journal articles uncovers two distinct reasons adults enroll in online programs, first, for the convenience and second the flexibility (Braun, 2008) students enjoy while studying at home or any other place of choice. Being aware of the convenience and flexibility (Braun, 2008) online learning offers, adult students enroll excited about learning in a higher education degree program but unfortunately are unaware of learning styles and their potential to produce successful learning outcomes. Adults with full-time jobs enroll in online higher education programs pursuing advanced degrees to increase their salary, change careers, or acquire new job opportunities (Braun, 2008). The universities enrolling adult students new to online degree programs presume that these students, who are unfamiliar with the details of learning in an online advanced education learning institution, are technologically advanced, have practical navigational understanding, and are experienced with computer hardware and the latest software products (Mupinga, Nora, & Yaw, 2006). The university also believes that these adult students have an active Internet service ensuring a continuous connection, and possess the appropriate identifiable learning styles deemed necessary to succeed while learning in an online higher education environment. Even with technology continually evolving, there is still no guarantee adult students enrolling online are computer literate or have the

technical skills and preferred learning style necessary to become successful while attending college online (Mupinga et al., 2006). Drennan et al. (2005) asserted, “not all students were competent computer users, and few were familiar with the use of e-mail. Some students even had difficulty accessing a home computer, and many had limited internet access” (p. 332). Perreault, Waldman, Alexander, and Zhao (2008) “noted that students enrolling in online courses tended to overestimate their technology expertise, even students with technical expertise indicated they benefited from an orientation program prior to their taking online courses” (p. 166).

Prospective adult students enrolling in online higher education programs appear only to be concerned about the convenience online studying provides, for example, not needing to travel to class and studying conveniently at any location. Convenience and flexibility are adequate reasons to enroll in online programs. However, students should also be concerned with gaining a clearer understanding of their individual preferred learning styles to determine if studying online will be a suitable approach to achieve their individual learning goals. New students enrolling in online degree programs can gain a distinct understanding of which preferred learning style will be most beneficial by asking pertinent questions during the enrollment process, or if available, attending the university’s orientation for online studies to become familiar with the process. Thereby, students can receive detailed information from the university that will allow the student to evaluate online studying in comparison to traditional classroom learning.

Another reason working adult students may choose the format of online learning is that they may be excited about the idea of enrolling in an advanced degree program that accommodates their lifestyle. In research conducted on average age college students

in comparison to older adult students studying online, researchers found that mature adult students entering or returning to college were more inclined to choose online learning educational programs than a traditional on-campus class because of full-time jobs (Perreault et al., 2008) and families. Students reflecting on the convenience of online studying should also contemplate the importance of knowing their individual preferred learning styles as they pertain to accomplishing educational goals in a very different learning atmosphere online.

Problem Background. Studies encompassing online learning in higher education institutions suggest an adult student who is successful in a traditional classroom will also be skillful in an online learning environment. Obviously, this is not the case, since adult learners must be encouraged to acquire the appropriate learning styles and skills (Clarke, 2007) necessary to succeed in an online setting. Clarke (2007) asked a crucial question: “How many learners seeking to benefit from online learning are well prepared” (p. 28)? A well-prepared student attending college online for the first time should have knowledge of his or her particular learning style, be computer literate having acquired an Internet connection service that must be maintained while enrolled in online learning, along with essential tools such as updated hardware and software to achieve success in an online learning environment (Mupinga et al., 2006).

Zacharis (2010) stressed that the “flexibility allowed by online instruction has a side-effect that many students are pursuing online learning opportunities for the sake of convenience, without any real consideration of the appropriateness of this delivery mode for their individual learning styles” (p. 592). A learning style model can be identified as having a propensity to support the processing of instruction in a specific way as well as

bracketing students according to the measured amount of information received and processed (Gulbahar & Alpher, 2011). The perception is that independent learners are normally more proficient in an online learning environment (Gulbahar & Alper, 2011; Mupinga et al., 2006).

Universities aware of the importance of providing prospective online students with the proper tools to succeed will have low attrition and high retention levels with improved student satisfaction rates, thereby contributing to the success of their students learning online. Reports completed by scholars suggest there are two factors attributing to an adult student's satisfaction in an online learning environment: (a) being proficient in a technical online arena, which involves knowledge of hardware, software, and online structured materials, and (b) having self-direction and internal locus of control (Gifford et al., 2006; Gulbahar & Alper, 2011). Additional features a student should consider developing to enhance online learning contentment are determination, ambition, and independent learning styles (Drennan et al., 2005). Bernier (2009) noted, "students will become more motivated to learn by knowing more about their own strengths and weaknesses as learners" (p. 14). Gifford et al. (2006) reported "higher education administrators are seeking strategies to identify effective predictors of university academic success that they can use as a part of the admission process" (p. 19). Repeatedly, the findings of researchers involving online learning report that the online learning environment is frequently connected to low retention of a student completing degree programs that may be linked to opposing learning styles and abilities (Clarke, 2007). When an adult student is acquainted with his or her preferred learning style, this knowledge can possibly make a difference concerning whether a student stays in his or

her degree program until completion or perhaps leaves the program. Still other professional studies conducted by researchers encompassing online learning suggest that if an adult student has not acquired a suitable approach for self-management by utilizing an appropriate learning style, this student may possibly drop out of his or her degree program (Zacharis, 2010) as a result of perceived external locus of control (Gifford et al., 2006). Students with internal locus of control can be considered more conducive for achieving success while learning in an online environment since they take responsibilities for their actions and the results of those actions (Gifford et al., 2006). Barzegar (2011) emphasized:

Students with an internal locus of control may be more likely to do well at distance learning situations that require a certain amount of independence from the learner. Students with an external locus of control will need more encouragement and guidance from the instructor (p. 195).

Still earlier specialized studies conducted on traditional classroom learning indicated some students are more studious in traditional classrooms where face-to-face, open, collaborative interaction with the professor and students takes place (Braun, 2008). It can be assumed that some students may not have the technological knowledge, good time management skills, perseverance (Mupinga et al., 2006), emotional stability, adaptability to study alone, or preferred learning style needed to be successful studying online. The ability to study courses in an online environment involves the ability to study alone, maybe for hours, in front of a computer communicating virtually rather than in a traditional classroom with direct contact. Possessing the essential skills needed to communicate virtually along with the ability to study alone for hours can be an essential asset when completing an online higher education degree program. Consequently, recognizing learning styles has become a valuable method of understanding exactly how

to enhance an adult student's learning process (Gulbahar & Alper, 2011). Braun (2008) reported, "online instruction appears to impact students as well as faculty" (p. 66). An adult student can be affected by a faculty member who has a particular style of facilitating online instruction that may not be beneficial to the online instruction format. It is important for universities to ensure that faculty members facilitating online instruction be appropriately trained to increase an adult student's success and the adult student as well should have or acquire pertinent learning styles necessary to succeed in an online environment. Felder (2010) declared "contrary to a common misinterpretation of learning styles, sensing and intuitive learners do tend to respond differently to certain teaching approaches, as do students with opposite preferences on all other learning style dimensions" (p. 2). Furthermore, Felder's research project concerning learning styles indicated online students who demonstrated specific learning style preferences and were compatible with the main pedagogical online setting, actually outperformed their colleagues who had opposing learning style preferences (Felder, 2010). Conducting a study concerning learning styles, Felder (2010) suggested that the "awareness of learning style differences can help instructors teach in a manner that effectively reaches most students rather than putting a large subset of them at a disadvantage" (p. 1). As research about learning style preferences implies, students utilize different approaches to learning such as (a) visual illustrations, (b) verbal clarifications, (c) effort followed by discovery, (d) observation and reasoning using a chronological method, (e) all-conclusive positioning, (f) concrete real-life facts, and (g) abstract models with imagery (Felder, 2010).

Gilakjani (2012) confirmed:

Teachers should consider the students' learning styles and their own teaching styles, which show their favored learning styles. Without this knowledge, clashes would affect students' learning potential and their attitudes toward learning. Both the teachers and students should be aware of their styles and try to harmonize them. (p. 51)

A prerequisite that may be unfamiliar to students enrolling in online programs is that they should have the ability to adapt to communicating electronically in an online virtual environment using written responses to their peers and the facilitator, instead of verbally conveyed communication. Communicating in an online environment also requires a student to use professional scholarly language prepared in an enthusiastically sensitive manner while taking into consideration the feelings of the facilitator as well as fellow colleagues who are communicating in the same virtual environment. Students enrolling in an online advanced degree program without prior knowledge of their preferred learning styles may become frustrated and disillusioned with online learning, which will cause them to withdraw from the program all together. Earlier research on learning styles while enrolled in online studying shows that when professors consistently complement or match a student's learning style with their particular style of teaching, this teaching technique will have a positive influence on a student's success and contentment (Gilakjani, 2012). Other scholarly findings involving a student's learning style propose that when there is incompatibility between a students' preferred learning style and a professor's chosen method of teaching, this incongruity may cause a student to become disinterested and negligent with coursework or on examinations. The student may also become dissatisfied with the curriculum and the degree program, which in some circumstances may eventually lead the student to discontinue the program (Gilakjani, 2012). Comparatively, when both students and higher learning institutions have advance knowledge of a student's preferred learning style and the online programs are designed to

include and accommodate a student's learning style, this may possibly decrease the disconnect between students actually learning and feeling satisfied, thereby alleviating the student dropout problem. Park and Choi (2009) admitted that with the "proper course design and technology being used, some problems are likely to be mitigated" (p. 208). Other research on the topic of online learning reveals the primary objective of online colleges and universities is to deliver a professional, adaptable, efficient, and effective online format that increases an adult's ability to learn, which requires developing and designing an enhanced online instructor-facilitated advanced degree program conducive to successful learning (Gulbahar & Alper, 2011). Greenberg (2009) also suggested that the "characteristics of online programs configured for adult learners and working professionals and learning style identification will assist the adult in success while learning" (p. 6).

Previous studies on Bloom's original taxonomy confirmed his prototype was more than just a tool to measure cognitive abilities, affective awareness, and psychomotor activity. Bloom alleged the taxonomy prototype could also possibly function as a widely utilized instrument to alternate the potential for educational opportunities that are contrary, in which limited growth and complexity of any specific instructive course may perhaps be compared (Krathwohl, 2002). Bloom's taxonomy outline distinguishes the three kinds of learning areas as, "(a) cognitive—mental skills (knowledge), (b) affective—growth in feelings or emotional areas (self, attitude, or receiving phenomena), and (c) psychomotor—manual of physical skills (skills or perception)" (www.nwlink.com). These learning areas can be conducive to learning in an online setting.

Table 1

Bloom's Capacity Awareness Educational Program Model

Cognitive	Affective	Psychomotor
Learning	Viewpoint	Competences
Recalling information	Consciousness	Reproduction
Comprehend	Act	Control
Utilize	Worth	Advance, accuracy
Study	Individual worth method	Communication
Integrate	Inner assessment method	Normalization
Value		
Assessor		

(Chapman, 2009)

Comparable to Bloom's learning theory, other scholars have described ideal learning styles as the combination of intellect, emotion, and biological features, which all operate together to gauge exactly how a person relates and responds to his or her educational setting. Simply stated, learning styles involve ways of comprehending, managing, collecting, and saving information, as well as challenges faced in attempting to remember during the learning process (Gulbahar & Alper, 2011). This explanation suggests advanced knowledge of a student's preferred learning style and information on what online studying entails will set the tone for a student's expectations and further empower him or her to be successful in progressing through and completing a well-designed online degree program. An adult student's overall experience can be greatly improved by initially recognizing a potential student's preferred learning style when enrolling into a higher education program. Accompanied by a student's learning style is the importance of a well-defined comprehensive description of what is needed and expected to achieve both satisfaction and success in an online environment. To ensure an online student's expectations and needs are met, it may be initially necessary to probe

prospective students during the enrollment process in an effort to identify the student's learning style. A university can possibly assist new students by providing them with helpful knowledge about the online process and its environment, thereby providing groundwork tools to improve their learning experience. It is proposed that the online learning environment be aligned with multiple students' learning styles, which may require minor adjustments that will allow both the online environment and students' learning styles to complement one another, and in so doing, enhance a student's experience and ability to succeed. Aligning the learning environment with students' learning styles can be a productive tool toward possibly reducing online student dropout rates. Setting an adult student's expectations upfront by explaining the specific details of what an online program involves may also help universities retain and further increase online adult student enrollment.

David Kolb published a book about learning style models in 1984 (Chapman, 2013). Research shows Kolb's learning style inventory suggests learning is based on a four-step experiential learning pattern: "(a) concrete experience (or CE), (b) an observation and reflection of the concrete experience (or RO), (c) formation and abstract concepts based upon the reflection (or AC), and (d) active experimentation (or AE), testing the new concepts in which the four learning patterns are then repeated" (Chapman, 2013, p. 593).

Chapman (2013) indicated Kolb also developed an all-inclusive method to teaching and learning, which involved the following four learning styles that he integrated with the experiential pattern; "(a) Accommodating (CE/AE), (b) Assimilating (AC/RO), (c) Converging (AC/AE), and (d) Diverging (CE/RO)," (p. 593). The learning

styles of online students highly proficient with computers were assessed using Kolb's learning style inventory (Zacharis, 2010). Zacharis (2010):

Showed that learning styles had no effect on success in online learning but it determines preference for this delivery format. Students' who fell into the Converger and Assimilator learning styles, felt more comfortable taking distance learning courses. Other research found that students with Assimilating and Accommodating learning styles demonstrated significantly more positive attitudes toward varied aspects of computer-based instruction than students with Converging and Diverging learning styles. (p. 593)

In the same study of Kolb's learning style inventory, it was confirmed that students learning online who possessed a divergent learning style conclusively outperformed the other learning styles while studying in an online setting (Zacharis, 2010). In order of performance, the other learning styles contributing to a good performance while learning online are assimilator, accommodator, and converger (Zacharis, 2010). This research suggests the importance of having the tools in place to initially probe students to advise them of their specific preferred learning styles since it was determined during the same study, "students learning online had the Converger learning style while traditional classroom learners had Assimilator learning styles" (Zacharis, 2010, p. 593). However, there is still a need for additional studies to identify the most efficient learning style(s) that will be most helpful in retaining satisfied students studying in an online setting, and may be valuable for achieving goals. Knowing a student's learning style in advance may help students realize individual assets, as well as create a trusting relationship between the university and the online student population, while productively guiding the student toward completion of an online degree program. To understand better the impact an adults' preferred learning style has on higher education learning, qualitative research was conducted and examined.

Purpose of the Study

As technology advances in the 21st century, colleges and universities are continually taking advantage of the convenience of these technological developments. Colleges and universities no longer offer classes only on campus or at offsite locations. Instead, students now have the option of attending school online at home or any location deemed appropriate for learning. Colleges and universities are continually improving the online format by offering additional undergraduate and graduate degree programs in a convenient, flexible (Braun, 2008) online learning format. These new developments in online learning encourage adult students to increasingly enroll in schools to earn advanced degrees. This is because online courses are believed to be more suitable and accommodating, as there is no traveling associated with attending these courses and studying can be done at any appointed time and numerous convenient places. Since student enrollment in online degree programs is constantly growing, universities must continue in their quest to find ways to ensure these students remain in their prospective degree programs until completion.

Research Questions

The research questions are designed to determine the impact or relationship and benefits of a student's preferred learning style as it relates to the successful outcome of studying in an online higher education environment. Therefore, the raw material collected for this research project includes facts about higher education online learning, demographical information, and the lived experiences as they affect an adult's preferred learning style. Three distinct methods were utilized to gather these realities. One of the research methods employed to gather students' learning style facts was the VARK

learning style survey, which is comprised of predicting visual, aural, read/write, and kinesthetic learning; Drago & Wagner, 2004). This 16-question learning styles survey (Fleming, 2011) was proposed to survey 31 prospective students at a private university in an organizational leadership program, and approximately 10-15 selected students who were currently attending or have graduated from an online higher education public or private university. The proposed 10-15 students were important to this research project because their raw data included capturing genuinely specific real-life online students' experiences. In addition to the VARK learning style survey responses from the 46 possible student samples, a 16-question demographic and college informational questionnaire was distributed to each of the student participants. The last instrument of data disseminated only to the 10-15 student participants involved a specially designed open-ended questionnaire containing 11 questions, which was created to assist with establishing the importance of learning styles and preferences of adult students learning online. The following specially designed open-ended questions were utilized to interview approximately 10-15 online adult student participants, with diverse ethnic, gender, and age variances at different geographical locations, by telephone, face-to-face, facsimile, or electronic email. While the free visual, auditory, and kinesthetic (VAK) learning styles model survey (Chislett & Chapman, 2012; Gilakjani, 2012; Hsu, 2011) is similar to the VARK learning style survey, it was not deemed appropriately conducive to this particular study since this instrument does not include the read/write measurement portion that is regarded as a major function to an adult student's overall learning style model. As shown below, the VAK learning style model simply includes visual, auditory, and kinesthetic learning styles.

Table 2

VAK Learning Styles Model

Learning Style	Description
Visual	Seeing and reading
Auditory	Listening and speaking
Kinesthetic	Physical, tactile, touching, and doing

(Chislett & Chapman, 2012)

The following instrument includes 11 specially designed open-ended research questions that were distributed to about 10-15 student participants. Table 3 was included with the 11 specially designed open-ended research questions as a reference to describe in detail each VARK learning style to the prospective student participants. The VARK learning styles description (Table 3) included with the specially designed open-ended questionnaire instrument also helped to ensure each adult student participant had a clear knowledgeable understanding of each of the learning styles: visual, aural, read/write, and kinesthetic.

- What are some of the main reasons higher education students enroll in online courses instead of traditional on-campus courses?
- What specific preferred learning style (see Table 3) is most compatible in an online learning environment? Why?
- Which one of the preferred learning styles (see Table 3) will be beneficial in assuring adult learners have a successful online learning outcome?
- Which one of the preferred learning styles (see Table 3) will affect an online student's perseverance and enthusiasm to continually learn in an online higher education environment? Why?

- How have technological advances in online learning affected a student's capacity to succeed in an online degree program?
- What can be done to prepare students adequately to use online course-related resources and technologies? Should a preliminary technological tutorial be offered to new students learning online?
- How can the online learning environment be improved to align with a student's preferred learning style? (see Table 3)
- What influence or relationship does online higher education have on an adult's ideal learning style? (see Table 3)
- What impact or effects do learning styles (see Table 3) have on the adult learner's performance in an online highly technical formatted educational setting?
- How would an orientation program explaining online learning processes, implemented by an online university, benefit a student during the initial enrollment in an online learning program? Should this type of training be offered at all online universities? Why?
- Would adult students recommend an online learning program in a higher education university to a friend or family member? Why or why not?

Table 3

Description of VARK Learning Styles

Visual Study Strategies	Aural Study Strategies	Read/Write Study Strategies	Kinesthetic Study Strategies
uses pictures, posters, and slides	discusses lessons with colleagues and instructors	uses lists, headings, notes (often verbatim)	uses all senses; sight, touch, taste, smell, and hearing
uses flow charts, demonstrations	may use a tape recorder	uses dictionaries, glossaries,	learns from field trips, field tours
uses underlining, highlighters with different colors	remembers the interesting lessons, examples	uses definitions, handouts, library	learns by application by hands on approach
uses books with diagrams and pictures	notes may be poorly transcribed since listening is a preference	uses the Internet, practices using multiple choice questions	learns from trial and error and from lectures with real-life examples
uses graphs, draws things, uses lists to organize thoughts	reads summarized notes aloud	uses repetition in writing words	may collect different kinds of rocks, plants, shells, etc.
uses symbols, is usually distracted by movement but noise does not disturb them	explains notes to others that like to listen	reads notes over and over again, takes notes when reading difficult material	learns from topics that are concrete and relevant
writes down exam answers as a method of study, likes seeing lessons visually	spends time recalling ideas	rewrites ideas and principles into words easy to understand	uses pictures and photographs that illustrate ideas
recalls by using pictures, can normally remember faces not names	speaks lessons aloud or inside head	arranges words into hierarchies and points	high energy, likes touching, moving, interacting with their environment
may also practice turning visuals into words	actually learns by listening	writes information into lists like; a, b, c, d, or 1, 2, 3, 4	Likes to watch and listen, but prefers not to be in a classroom setting
Can learn through descriptions	prefers working out problems by talking easily distracted by noise		recalls experiments or field trips learns best by doing, using hands on, movement

(Drago & Wagner, 2004; Fleming, 2011)

Limitations and Delimitations

A projected limitation to this research project may be the 11 specially designed open-ended questions administered to the diverse group of 10-15 student participants. Even though the questions were designed to answer the specific lived experiences of the students learning in an online environment, the students may not exercise integrity in answering the questions relating to their specific learning style and preference. Another limitation is that the study will be administered to students enrolled in an online program. Future studies on the topic should include students enrolled in traditional programs as well. Delimitations occurring during this study may be due to the study being conducted at a private university where the specific online design or format of the university may be significantly different from public universities, which could possibly narrow this study to specific findings of a private online university's formatted design. Additionally, there is no guarantee that the 10-15 student participants are attending a public university; these student participants may be attending a private university as well.

Definitions

- *Preferred learning styles* are a series of individual features, activities, and approaches that simplify the learning process in a particular setting.
- *Online learning environment* is a virtual learning platform.
- *Web-based instructional learning* is the facilitation of learning processes supported by an Internet resource that is comprised of several corresponding elements.
- *Internal locus of control*, as described by Gifford et al. (2006), is “associated with higher self-motivation, higher social maturity and greater independence. Internals

assume responsibility for their actions and accept responsibility for outcomes” (p. 20).

- *External locus of control* assigns accusations on others or outside events (Gifford et al.).
- *Pedagogy* is to impart education; additionally, it is the act of teaching or instructing utilizing techniques of instruction.

Importance of the Study

This research project that involved adult students’ preferred learning styles was conducted utilizing a phenomenological qualitative approach to discover the lived experiences of the adult students enrolled in online higher education programs. This scholarly examination also centers on the effects or relationship an adult’s preferred learning style has on higher education online learning and how this information can be used to greatly improve the experience, satisfaction, and needs of an adult student attending and functioning in an online university setting. It is important to know and recognize an adult’s exact preferred learning style as it applies to the adult student achieving successful completion while pursuing a degree in an online higher education environment. Felder (2010) stated:

Acquainting students with their learning styles can enhance their awareness of some of their natural learning strengths, and it can also alert them to learning needs, which, if unaddressed, could create academic difficulties for them. The instructor should make clear, however, that learning styles provide no indication of what the students are and are not capable of, nor are they legitimate excuses for poor academic performance. (p. 5)

The knowledge gained about the effects of learning styles in an online learning environment will be advantageous to both colleges and the potential adult student enrolling online in a degree program, since knowing a student’s preferred learning style

can possibly increase a student's chance to succeed and also contribute to a productive satisfying experience, ensuring a student remains in the degree program until completion. Gilakjani (2012) noted, "the findings of past studies stated that a learner's achievement in any class is determined by factors such as native ability, and the level of congruence between learners' learning styles and teachers' teaching styles" (p. 54). Uncovering the specific learning styles required to increase a student's initial success rate during enrollment will provide colleges and universities with the appropriate information to design courses that align with students' learning styles. Previous studies on adult achievement confirm that students with drive, commitment, self-efficacy, internal locus of control (Gifford, Briceno-Perriott, & Mianzo, 2006; Gulbahar & Alper, 2011), and a determining preferred learning style, followed by an organized lifestyle having the ability to manage time effectively are considered the best candidates for online learning environments (Hollis & Madill, 2006). Still other studies on this topic suggest that for students with a particular preferred learning style, the following factors are necessary to produce contentment and a successful online learning outcome: time management skills, demonstrated persistence, a supportive home environment, or any place conducive to online learning (O'Connor & Cordova, 2010). Gaining insight about an adult's ideal style of learning and how it affects a student's ability to succeed in an online learning environment will assist universities and colleges with aligning degree programs with a student's ideal style of learning, thereby increasing the student's rate of success while lowering a university's dropout rate (Zacharis, 2010).

CHAPTER TWO: REVIEW OF THE LITERATURE

Throughout the years, businesses have welcomed the seemingly endless technological advances consistently changing the way they operate both nationally and internationally while transforming the lives of employees who work for them. Technological advances occur regularly based on innovative technical improvements that continually transform the way people communicate, socialize, work, and even learn. People entering the workforce today are no longer proficient in one specialized area, but have benefited from earning degrees. Even with the benefits of holding a degree, adult workers still return to higher education institutions to gain additional knowledge and update skills while acquiring advanced degrees to be promoted, or obtain a new position at an entirely different organization (Greenberg, 2009). Greenberg (2009) admitted, “the workforce has changed from single skilled industrial society workers to multi-skilled postindustrial society workers with a need for lifelong learning” (p. 17).

In the past, businesses expected professional workers to earn their pay from performing the same set of specialized skills during the length of their employment. However, with modern day technological advances such as program automations, as well as the numerous operational changes occurring today within organizations, like mergers, acquisitions, downsizings, restructuring, and outsourcing, it appears these changes have persuaded businesses to make drastic changes to their hiring practices. To avoid hiring the wrong candidate, businesses have implemented an extensive complex interview practice to ensure potential candidates are highly educated with specific technical and behavioral qualifications (Don't Wait, 2010). Hiring educated and highly motivated people has allowed companies to remain competitive (Don't Wait, 2010). Thereby,

operating in red can be avoided and the organization can remain solvent in what is presently called a time of organizational transformation in which many companies have ceased to operate. These organizational hiring practices have convinced employees to reevaluate and update their skills in an effort to remain cost-effective to their employers, and in so doing, adult workers have evolved into lifetime learners (Greenberg, 2009).

Furthermore, innovative technological developments are being welcomed by the administrators and faculty members of educational institutions as well, who constantly search for new ways to accommodate the enormous influx of adults returning to school.

Madrigal (2009) wrote:

We need to think in terms of transforming the educational experience so that it is meaningful to the information-age learner.... The industrial age has become the information age, and thus the way we organize our institutions must change.... The challenge will be for educators and higher education institutions to incorporate the information-age mindset of today's learners into our programs so as to create communities of lifelong learners. (p. 24)

Historians of pedagogical reformation suggest it is imperative that when organizations make changes to the way they conduct their business transactions, educational institutions should also transform their methods of instructional training to keep up with societal advances (Madrigal, 2009). It is for this reason that most universities have discovered that the only viable solution to higher education achievement for adult students with full-time jobs wanting to increase their knowledge and skills is the groundbreaking advancement of online learning, which offers total accessibility and flexibility to numerous courses and advanced degree programs. Jones, Morales, and Knezek (2005) reported, "in 2003 more than 66,000 fully online courses and 1,200 complete online programs were available in the United States and Canada; proving internet-based distributed education became firmly embedded in education due to the explosive growth

of networked digital communications” (p. 220). Harris, Larrier, and Castano-Bishop (2011) emphasized, “from fall 2003 to fall 2008 the average annual rate of growth in online courses was 16.7% as compared to an annual average growth rate of 1.5% for traditional courses” (p. 1).

This incredible evolution of e-learning described today as online learning is an electronic concept of technological learning that actually had its beginnings in 1999, at a specialized desktop computer centered instructional methods roundtable in Los Angeles, California (www.leerbeleving.nl, n.d.). Earlier commentary on the information age and the use of computers in education, however, was initially assessed in 1972, by Billings and Moursund who pointed to four significant educational developments: (a) the advancement of writing and studying; (b) an occupational growth in the professions of teaching, lecturing professor, and academic researcher; (c) the innovativeness of portable lettering, followed by an increase in the convenience of books; and currently (d) automated equipment equivalent to “calculators, computers, videotapes, recorders, videodiscs, electronic bulletin boards, computerized databanks, telecommunication satellites, fiber optics, cellular telephones” (Billings & Moursund, 1988, p. 1); and, at present, the modern-day use of white boards, i-Pads, and digital books. Therefore, reflecting on how today’s social composition has become a transformed technological communications culture, the reality of this change provides adult students with a new approach to individual learning by way of first acquiring information and then constructing it into their own learning preference (Daghan & Akkoyunlu, 2012). Daghan and Akkoyunlu (2012) acknowledged that the “transformation of society into an

information society and the emergence of different learning strategies created the concept of online learning” (p. 122). Kozub (2010) expressed:

It is the technological innovations and user interaction possibilities provided by the web based learning environment that have many individuals believing that the web is an excellent medium for enhancing learning, due to its ability to adjust to individual student learning styles and preferences. Because of web based learning environment’s ability to adjust to individual student learning styles and preferences, one would assume that the variation in individual students learning styles would be a significant factor in instructional design. (p. 89)

Scholars studying online course designs have revealed the importance of considering an exclusively designed online format that includes a student’s learning style and preferences, which can be an essential component to a student’s overall learning experience (Harris et al., 2011). Professors conducting research on students’ learning styles and technological preferences acknowledged that universities that acquire newly enrolling students’ learning styles and preferences would have the ability to successfully integrate cutting-edge network technologies into educational courses (Saeed, Yang, & Sinnappan, 2009). To guarantee universities providing online programs to adult learners remain significant learning entities, higher education institutions operating online must be committed to adjusting, accommodating, and transforming online platforms continuously as new technological advances occur in an effort to support and meet the needs of student learning preferences in an online environment (McGlone, 2012). Universities developing online learning programs also have a responsibility to their students to offer a preliminary orientation for students enrolling for the first time into an online learning program (Madrigal, 2009) to ensure students have the ability to perform and knowledge to access the online environment, thereby promoting a successful outcome. In light of some students beginning online courses in fear of the unknown, Nichol (2010) provided an example of an intervention through a college’s orientation where:

All new students were given the option to participate in an orientation course, designed as a 1-week distance learning primer. While all first-time students were sent the materials, participation was optional. During the orientation, students had the opportunity to develop the online skills required for study and received helpful tips relating to time management and study technique. (p. 94)

In addition to the college's orientation program, an online setting should be easily accessible and find ways to assist student learners by incorporating creative well-designed courses (Greenberg, 2009) that complement students' learning styles. Some universities have discovered that even with the flexible accommodations online learning environments offer, an online setting may still provide adult learners with an unexpected unique adjustment due to the distinct way students communicate and interact while performing in an online environment (Stein, Wanstreet, & Calvin, 2009). Consequently, there is a need for universities to take a closer look at the online format and the learning preferences of adult online learners enrolling in online programs to ensure their learning styles are well matched with the online learning design. Since most students actually possess more than one learning style (Gilakjani, 2012), matching at least one of the student's learning styles may not be a cumbersome task. Students who become more aware of and experienced with their own learning styles and preferences, will possibly have the capacity to develop a more flexible style of learning. Therefore, being more flexible, the student will have the ability to modify his or her learning style to become accustomed to the online format. Perhaps, this will empower and assist the student with engaging in the learning process, which can produce improved comprehension of the online pedagogical material (Gilakjani, 2012).

Online Learning

Scholars who conducted research pertaining to online learning suggested it involve an environment where the Internet is utilized to retrieve learning materials

(Daghan & Akkoyunlu, 2012). This type of learning environment can facilitate a collaborative, interactive setting between the facilitator, pedagogical content, and fellow student participants. Online learning is an environment conducive to promoting successful learning where supportive technical experts are available to assist online students throughout the course of the program (Daghan & Akkoyunlu, 2012). As communication through technological advances increased, higher education institutions began utilizing the Internet, which included web-based assignments as a teaching delivery method for distance education (Zapalska & Brozik, 2007). Even scholars admitted that higher education institutions are experiencing escalations in adults registering for online learning programs (Castle & McGuire, 2010), which may be due in part to the budgetary efficiency online learning yields to higher education institutions. Both universities and adult students have become cognizant of the benefits attributed to online programs. Greenberg (2009) also affirmed, “e-learning programs can provide adults with a second chance at education” (p. 1) and job opportunities. These adult students would not otherwise have the opportunity to attend college since most are employed full-time. It is online educational learning that gives students the chance to study at their leisure, anywhere and at any time. Other practical reasons for the increase in adult student enrollment into online programs include the actual coursework (Zapalska & Brozik, 2007), the variety of graduate programs, and the availability it offers.

The review of several professional journals showed enrollment into higher education programs is steadily increasing (Perreault et al., 2008). Perreault et al. (2008) indicated, “the Sloan Consortium reported 3.2 million higher-education students were enrolled in 2006 which was up from 2.3 million in 2005” (p. 164). These numbers

suggest it is with irrefutable determination that workers in the job market desire and are continually seeking a college degree, in some cases an advanced degree. Professionals conducting a study about adults enrolling in online learning programs revealed that online learning courses are popular with female adult students who are 25 years and older, work full-time, and have assumed the responsibility of caring for a family or the community (Slick, 2008). Another examination of records generated by professional researchers showed working adults who are between the ages of 25 and 65 (Greenberg, 2009) without a college degree are currently returning to school in an effort to gain new skills, pursue new jobs, or gain job advancements. While younger adult students are primarily enrolling in classes on college campuses, scholars have determined that a greater number of students enrolling into online programs belong to a more mature group of adult students (Brown, Hughes, Keppell, Hard, & Smith, 2013). Colleges and universities have been meeting the demands of this new trend of senior adults returning to school by offering convenient and flexible courses online for several degree programs. However, even with online learning being a popular educational feature, few universities still do not recognize the importance of an adult student's preferred learning style and how knowing the student's learning style can be beneficial to both the university and student if this information is acquired at the time of enrollment. Being aware of a student's learning preference may guarantee that the large adult population enrolling in online learning is contented and maintained.

Another consideration for educators to ponder is whether adult students are performing well in online learning environments (Greenberg, 2009). The Sloan Consortium published "Making the Grade, in 2006" (Bernier, 2009, p. 21) documented

that key educational administrators strongly believed the quality of online learning instruction is equivalent to or greater than traditional face-to-face instruction. The Sloan Consortium publication also authenticated the quality of online learning, which was found to be a creditable pedagogical format, substantiated by officials in higher education and the heightened intellect gained by students attending online programs. Even so, there is still an inadequacy currently challenging some universities offering Web-based instruction because these universities have limited knowledge of an adult learners' unique learning preference. The reason being, learning styles are not being recognized by universities and this principle barrier to learning (Saeed et al., 2009), by not recognizing a student's learning preference, may be producing dissatisfied students while learning online. Experts supervising studies of students learning in an online setting clearly indicate the importance of designing an online learning platform that aligns with and adjusts to an individual student's learning style (Gulbahar & Alpher, 2011), which when realized will ultimately benefit the student and university. Scholars directing recent studies of online education indicated there is a need to broaden studies on this new phenomenon of online studying and how this learning environment affects a student's learning style (Gulbahar & Alpher, 2011). Additionally, professionals leading research on the specific elements required to increase a student's interest and commitment while learning in a synchronous and asynchronous online setting suggested that the environment should be appealing and lively, foster an atmosphere of active participants that includes shared activities, which supports online learning goals and the learning preferences of each student (Castle & McGuire, 2010).

A key fact to consider about online learning and not realized by adult students enrolling in online programs for the first time is that online students are totally in control of their own learning (Filimban, 2008) because most of the learning process is accomplished independently. Still, researchers stressed the significance of ongoing collaborations with both the facilitator and fellow student participants because it is viewed as being crucial to the student acquiring understanding and being intellectually stimulated (Rudestam & Schoenholtz-Read, 2010). Further research performed by Daghan and Akkoyunlu (2012) on learning styles and the online environment “concluded that students in the online learning environments attached great importance to the student-administrator interaction. Students considered this interaction type more important than other interaction types” (p. 135). Researchers and, in some instances, students (Daghan & Akkoyunlu, 2012) have recognized that online learning environments should be ones in which the facilitator responds swiftly in a timely manner to a student, providing him or her with pertinent feedback, using an unbiased approach. This type of feedback is considered more relevant than the collaborations students have among their colleagues. The fact is student and facilitator interactions are seen as a very important part of the online setting because students require these interactions as part of their motivation and cognitive development (Daghan & Akkoyunlu, 2012; Rudestam & Schoenholtz-Read, 2010).

Moreover, adult students have the ability to evolve into self-directed independent learners by practicing and engaging in an educational method called student-focused instruction that includes “interaction, reflection, analysis, and discussion which has been empirically linked to critical thinking, academic performance, and personal development”

(Rabe-Hemp, Wollen, & Humiston, 2009, p. 208). Rabe-Hemp et al. (2009) believed “autonomous learners can be defined as motivated students who accept more responsibility for their learning and share in the process of learning with other students and faculty” (p. 208). Therefore, it can be advantageous for a university to know a student’s learning style during the enrollment process, since a student with locus of control will exhibit a self-directed independent learning style, which will contribute to accomplishing successful learning in an online environment. Scholarly studies conducted with students in control of their individual learning have produced positive academic results (Gifford et al., 2006) followed by student satisfaction, which may guarantee student retention. Along with the advantages of student retention, when a student is content while attending a higher education online degree program, these satisfied students will eventually benefit universities by increasing their online student population through student referrals.

Online Learning Challenges

Another worthy deduction provided by scholars performing studies of students determined that even with the benefits online learning presents, it should not be established as a suitable choice for every student (Bernier, 2009). Drennan et al. (2005) found both positive and negative students’ comments with regard to opinions about studying online in which one student stated, “it is great being in control of your learning, while another student felt that a student tends to slack off” (pp. 336-337) when granted both the freedom and flexibility to study alone online. Professionals conducting a study that resulted in a knowledge-based journal revealed that challenges were uncovered when online facilitators attempted to foster learner-to-learner communicative relationships

during online computer generated dialogues. In contrast to the online interactions, cooperative traditional interactions were more successful when collaborations took place in a classroom setting. This suggests, unlike online learners who have limited interactions during “student-to-student” exchanges (Rabe-Hemp et al., 2009, p. 213), learner-to-learner interactions within a classroom environment are unlimited, allowing more time for the development of relational partnerships and working group efforts. Additional examiners indicated it is vital that online learners communicate with their facilitator and colleagues since this method is perceived as the main educational objective largely utilized to increase learning. This technique of educational engagement actually assists with building a strong relationship with the facilitator. Whether the collaboration between the facilitator and student is official or unofficial, it is valuable as long as the student’s intellect is enriched (Rabe-Hemp et al., 2009).

Scholars piloting research on the adult student learner pointed to other obstacles and challenging matters that may be encountered while learning in an online environment: (a) technological concerns such as having little or no technical expertise; (b) natural disasters, which may disconnect the Internet; (c) hardware issues (Drennan et al., 2005; Rabe-Hemp, 2009); (d) the online learning design may not meet the learning styles of all students; (e) time commitment issues suggesting adult students may have outside family emergencies or work obligations; (f) program-specific curriculum and scheduling deemed not suitable for the online format or students who may have problems scheduling a chosen program; and finally (g) computer-generated communication may be considered questionable since visual and auditory prompts are not present when a group is communicating within an online thread (Dyrbye et al., 2009; Stein et al., 2009).

Moreover, there are some adult student virtual learners who may be very unfamiliar with the entire online design concept, which is an additional challenge facilitators unknowingly experience while teaching in a computer-generated learning environment (Stein et al., 2009). Familiarizing students with the online learning format in a preliminary orientation program can be beneficial to both the facilitator and student. Time commitments can also present challenging issues when learning online. Online learners are obligated to schedule their own time for learning, thus, balancing personal commitments such as work, family, and recreation time. Studying in an online environment presents adult students with the responsibility of ensuring time is arranged according to their availability. Anxiety may result from students coordinating online studying with additional personal and work obligations, which can become a relevant concern for the adult learner (Stein et al., 2009) if time perceived as available is actually limited.

Technological concerns. Some examiners leading studies of a virtual setting admitted that even now there are several adult students who are regarded as apprentices in the online setting (Stein et al., 2009). The most common technical issue for adult students is not being computer savvy and the second is experiencing computer hardware failure or software problems (Stein et al., 2009). Still other concerns can involve responding to lengthy posts, interpreting fellow students' communicated scripts with precision, and the Internet being slow or not available, especially after a natural disaster (Dyrbye et al., 2009). A plan to assist first time online learners is suggested by Perreault et al. (2008) who indicated "training or tutorials should be provided to students planning to enroll in online learning to help them use online technologies effectively" (p. 166).

Along with the need to know a student's learning style, universities can also provide a refresher course in technology for new students enrolling online for the first time (Nichols, 2010). Universities that prepare their students to succeed in an online setting will ultimately see an increase in student satisfaction, thereby increasing student referrals and retention.

Preferred learning style concerns. Scholars studying learning style issues suggest that a new adult online learner may unknowingly bring hindrances into the online setting such as deficient learning styles, a lack of computer software knowledge, feelings of incompetency when communicating and posting scripts in the virtual online environment, which can lead to intensified feelings of seclusion, thoughts of division, and detachment from the facilitator and fellow student colleagues (Stein et al., 2009). When the online learning environment is not designed to include each student's learning style, the online environment may not be conducive to achieving learning since some students indicated that the online setting only provides limited learning due to reduced visual stimuli while reading and interpreting fellow students' extensive posts (Dyrbye et al., 2009), which may produce learning challenges for some students.

Comparing On-campus Classroom Learning to Online Environmental Learning

Scholars admitted students studying in an online setting experience different pedagogical activities than their student colleagues who consistently use traditional face-to-face classroom collaborations (Greenberg, 2009). Studying in a classroom setting where there is a minimal orientation and introduction process is unlike online learning, which may not offer an orientation or introduction process to the online learning environment (Parreault et al., 2008). Universities without the benefit of an initial online

orientation, introduction, or training program for students enrolling for the first time into an online formatted program may unknowingly cause an online student to become uninterested and dissatisfied with the online course, or in some instances, cause the student to withdraw completely from the program. Preparing adult students by offering an online orientation, introduction, or training option early during enrollment will assist, for example, the VARK learning styles visual, aural, read/write, and kinesthetic learners, since this type of online introduction process will possibly be useful to all learning style categories. Online educational institutions that contemplate the learning styles of students enrolling in online programs will readily assist the university with designing courses that “address the variety of learning styles found in their students” (Zapalska & Brozik, 2007, p. 8). Palmer and Holt’s (2008) meta-analysis involved “a survey of 41 speech and language therapy students, found that online learning required a commitment from students to active learning that classroom lectures did not, because students found it hard to motivate themselves and difficult to prioritize” (p. 102). Students who are self-directed can utilize their own individual learning styles to become motivated and adapt to studying alone. Students can also independently, or with some help, become completely responsible for their own learning, and also become accustomed to engaging in a learning activity in an electronic communication setting (Gulbahar & Alper, 2011).

Additional studies conducted on student perceptions of time spent in completing homework assigned in a classroom setting in contrast to homework assigned in an online environment were noticeably different since it was discovered in “2001 48% and in 2006 60% of students in the MBA program strongly agreed that students in an online environment spent a considerable amount of time completing assigned homework”

(Parreault et al., 2008, p. 171). The group of students in 2006 in comparison to the group of students in 2001 plainly affirmed that additional time was allotted to complete online coursework (Parreault et al., 2008). These results may imply that there is a need for students to learn how to apply time management skills when studying online. Thought provoking too, are the following findings from Parreault et al. (2008):

About half of the 2001 and 2006 students (48 percent and 50 percent, respectively) agreed that it took more time to communicate with and get assistance from a professor teaching an online course than with a professor teaching a traditional course in a classroom. (p. 173)

However, by the year 2006, when several MBA students completed their online learning experience, it was uncovered that online learning is an innovative modern-day documented technological approach to higher education learning supported by the findings that showed 90% of the 2006 students contributing to the survey study were competent enough to “complete an entire graduate level program of study online” (Parreault et al., 2008. p. 171).

Another interesting piece of evidence examiners found in recent studies of online students is that many online learners are truly satisfied with the online setting. The same students favored an online pedagogical atmosphere above a traditional classroom setting (Razzaq, Zareen, & Ramzan, 2013). Further research conducted with students studying online indicated that before 2006, learning online was unique in that little or nothing was known about a student’s experience in the online environment. Today, adults enrolling in higher education programs must become cognizant of the differences between traditional classroom courses and online learning courses, so that the prospective student enrolling in higher education courses and programs can reach a decision under careful consideration about whether a traditional classroom or a course in an online setting will

best suit his or her preferences, needs, and their personal, educational, and learning style preferences.

The Benefits of Preferred Learning Styles

Professionals studying both the learning preferences and learning styles of adult online learners showed that each style can have an important role in producing motivational learning stimuli such as purpose, enthusiasm, achievement, and collaboration in an online settings (Gulbahar & Alper, 2011). Gulbahar and Alper (2011) reported a “learning style has been shown to play an influential role in students’ reactions to a web-based instructional program, with students exhibiting different cognitive styles showing varying preferences” (p. 272). A student’s learning style has a direct effect on how the individual student learns and the knowledge gained can be maintained based upon the student’s preferred learning style (Greenberg, 2009). The process of learning can be described as a blended progression in which an individual’s whole physical essence (i.e., natural and hereditary), including mental attributes (i.e., comprehension, talents, mindsets, morals, feelings, and perceptions) encounters a common circumstance where this observed social circumstance is subsequently effectively changed intellectually and rationally (in any order), and at last integrated into an individual’s profile, leading to a more skilled and knowledgeable transformed person (O’Connor & Cordova, 2010).

In view of the importance of adults’ preferred learning styles and the role learning styles play in achieving successful learning, what can be done to ensure the online learning environment is formatted to accomplish learning for each student’s learning style? Some research performed by experts has been focused on teacher-centered

teaching styles instead of a student's related preferred learning style while studying online (Greenberg, 2009) to ensure learning is achieved. Advanced considerations of which learning style will be harmonious in achieving success in an online setting may help to counteract student withdrawal rates or possibly avert them altogether if an adult student can attain online satisfaction, thereby succeeding while studying online.

Contrasting Learning Styles and Preferences

A noteworthy difference between learning styles and learning preferences is simply that "learning styles are a distinctive and habitual manner of acquiring knowledge, skills or attitudes through study or experience while learning preferences are favoring of one particular mode of teaching over another" (Saeed et al, 2009, p. 99). Students who gain a clearer understanding of their individual learning styles and the connection between both learning styles and pedagogical approaches will improve their own preferred insights of what it takes to increase learning (Moallem, 2008; Saeed et al, 2009). Saeed et al. (2009) stated:

Since learning styles provide information about individual differences in learning preferences they can suggest how instruction can be best designed to support learning preferences. A review of learning theory literature suggests that learning styles and preferences influence the effectiveness with which individuals learn. Therefore, first-hand knowledge of students' learning styles and preferences can help lecturers choosing the right methods of instruction for the right audience. (p. 98)

For example, communication within an online environment can be awkward given that communicating with clarity is essential for students interacting online through written posts, which may possibly be misinterpreted or misunderstood since there are no face-to-face visual or auditory cues. There is no assurance that a student's communicated posts are being interpreted correctly, although it is expedient that when students write and post in the online environment, they should do so with clarity and within a timely sequential

manner so that all students are contributing to the discussion and learning that is taking place. It is suggested that in order to improve a student's online learning experience, the facilitator should monitor discussions and establish learning expectations for each student as a requirement (Dyrbye et al., 2009). An intellectual learning model operates based on distinct variances in learning and regards learning styles as a standard for all individualistic differences (Saeed et al., 2009).

Because writing and reading posts in an online setting require more reflection (or cognitive thinking and recall) and few auditory prompts, Bloom's taxonomy learning domains: cognitive (comprehension/analysis), affective (receive/respond), and psychomotor (imitate/articulate/precision; Chapman, 2009) are applicable learning style behaviors for a student learner to succeed in an online learning environment. Most students are not aware that they possess at least one resilient learning style. However, learning in an online setting can require numerous learning styles; therefore, a student learner should become more acquainted with his or her individual learning styles so that his or her style of learning can be adjusted as the online learning content changes. An ideal online learning environment will be one where both the facilitator and student attempt to align their learning styles and learning preferences to achieve a more complementary approach to teaching and learning (Gilakjani, 2012). Rabe-Hemp et al. (2009) indicated:

Namely, online learning is achieved by means of greater student-to-faculty contact, participation in class discussions, and a more reflective learning style. Students in the online course may be more reflective in their learning process, indicated by the findings that online students spent more time preparing for the course and that they felt more connected to faculty. Simply put, writing demands more reflection than speaking. (p. 213)

For that reason, a student aware of the following learning styles: self-directed, motivated, driven, independent, commitment, self-efficacy, locus of control (Gifford et al, 2006; Gulbahar & Alper, 2011), an active read/write learner, and visual learner, can assume they possess the necessary proficiencies that will render a successful outcome in an online environment.

VARK learning styles. The visual, aural, read/write, and kinesthetic (VARK) learning style survey is widely used to establish the learning styles of students (Drago & Wagner, 2004). The first learning style, visual learners are taught by using illustrations, explanations, narratives, and pictures. In the second learning style, aural, learners receive knowledge by listening and engaging in conversation. In the third learning style, read/write, learners acquire facts from taking notes and perform better when given direct assignments. In the last learning style, kinesthetic students learn best from relating and moving around using their hands and senses to experience phenomena (Drago & Wagner, 2004). A study utilizing the VARK learning style survey was conducted in which Zapalska and Brozik (2007) recognized “no student or teacher is restricted to only one of the four modes Visual, Aural, Read/write, or Kinesthetic” (p. 9). Facilitators as well as students may naturally display at least one of the four learning style preferences as their dominant trait. However, both student and facilitator can still reasonably exhibit either frailty or power in one or more of the other VARK learning style modes (Zapalska & Brozik, 2007).

Research was completed to find the one VARK learning style mode not compatible in an online setting. It was determined that the aural learning style mode may not be a good fit for the online learning environment since this learner uses listening and

speaking as their main method of learning (Zapalska & Brozik, 2007). In comparison, the read/write learning style mode is well adapted for use in an online setting. However, a more robust designed learning approach should be pursued in the place of a standard read/write constructed theme while learning in an online program (Zapalska & Brozik, 2007). An example of this would be a group of students working together to complete assignments. Zapalska and Brozik (2007) also stated, “it is important for instructors to share information with students about their learning styles and the preferred teaching strategies to accommodate those styles” (p. 12). Instructors who are aware of their students’ learning styles and preferences will be able to plan and match their own pedagogical strategies to the learning styles and preferences of students. It can be assumed that if learning styles and preferences are built into the design of an online program, this will ensure online programs have the capability to support and accommodate each student learner in an online setting (Zapalska & Brozik, 2007) no matter what learning style and preference the student possesses. However, there were opposing views on the topic of designing and incorporating pedagogical content that address various learning styles, which indicated it would require unwarranted time to perform this task. Thereby, it was perceived as wasting time to include a variety of learning styles into the online educational learning format (Moallem, 2008). Moallem (2008) believed:

Factors such as learning tasks and the context in which learning is to transpire (e.g., student level of engagement in the learning process, level of interactivity among students and between student and the instructor, and instructor immediacy behavior) and student’s perception of social presence (social and human qualities on online learning) may play a more significant role in improving instructional effectiveness in online learning. (p. 238)

A professionally directed analysis of student experiences in an online setting showed numerous types of collaborations that included simultaneous online classroom dialogues ongoing during previously designed modules, which were blended with students engaging in mutual problem solving activities. These activities helped students with altering their calculated approaches to learning while attempting to positively affect the anticipated learning results “without impacting their attitude and satisfaction” (Moallem, 2008, p. 238). The following information shows the actual number of students (example: N = 5) using their particular learning styles or preference and the rate of recurrence in which each pedagogical approach was used. These results also show that the experiment indicated the most preferred learning style in comparison to the least preferred learning style, as the students participated in the experimental design modules, “(a) N = 5/ Reflective (real-life dialog-2; interpretations-2; several pedagogical resources-1; and shared group activity-1), (b) N = 9/Visual (real-life dialog-4; shared group activity-1; interpretations-1; and several pedagogical resources-4), (c) N = 4/Verbal (shared group activity-2; interpretations-1; and real-life dialog-1), (d) N = 7/Sensing (real-life dialog-3; interpretations-2; and several pedagogical resources-1), and last (e) N = 6/Intuitive (several pedagogical resources-3; shared group activity-2; and real-life dialog-1)” (Moallem, 2008, p. 232). The results showed the visual learning style was utilized more by students online while the verbal learning style was employed least. Moallem (2008) disclosed:

In other words, it seems that in online learning environments where social interaction, collaboration and problem solving are highly emphasized, it is likely that students’ perception of their positive learning experience influence their motivation and willingness to adjust their preferred learning styles. (p. 238)

Therefore, regardless of the major variances of student learners that support outdated customary designed classroom elements, findings of an examiner's research on learning behaviors online revealed that learning styles can be incorporated into an instructional online formatted setting and not compromise the relevance or results of educational plans for exclusively designed pedagogical content (Moallem, 2008).

Kolb's learning style inventory. Simmons (2006) indicated, "David Kolb developed a self-report measure, called the Learning Style Inventory (LSI), to determine which modes of learning one tends to rely on and prefer in a learning situation" (p. 9). David Kolb's theory presents four distinct learning styles that include; diverging (feeling; concrete experience/watching; reflective observation), assimilating (thinking; abstract conceptualization/watching; reflective observation), converging (thinking; abstract conceptualization/doing; active experimentation), and accommodating (feeling; concrete experience/doing; active experimentation). Kolb's theory proposed that people who are influenced by their physical perceptions identify their settings in a "concrete manner" (Simmons, 2006, p. 29), whereas people who are influenced by the use of their "intellect or imagination are more abstract" (Simmons, 2006, p. 29). In addition to the four learning style inventory models, Kolb also structured the "four-stage" (Zacharis, 2010, p. 591) learning cycles, which consist of the following; concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE; Chapman, 2013; Slick, 2008). Students with the diverging (feeling and watching; CE/RO) learning style are inclined to brainstorm, work in groups, enjoy feedback, be emotional, creative, and like people. A student with an assimilating (watching and thinking; AC/RO) learning style is less focused on people, would rather read, appreciates

lectures, is analytical, and enjoys taking time to think through ideas. Students with a converging (doing and thinking; AC/AE) learning style do not care about relationships with people, are problem solvers and decision makers, and stimulate themselves with new ideas and hands-on applications. The final learning style, accommodating (doing and feeling; CE/AE) indicates this student depends on data from other people and then makes an assessment of the information received. The accommodating student learner will also work in a group to complete a task, and will set goals and work hard to achieve the set target (Chapman, 2013). A study of Kolb's four learning styles and the four learning cycles conducted by Slick (2008) showed "respondents with a Diverging learning style preference appeared to be somewhat less likely to be successful in a distance learning environment" (p. 1). Examiners studying students with a diverger learning style during an online course stated that students with a diverger learning style displayed the lowest amount of satisfaction while performing in-group activities online (Simmons, 2006). Scholars recognized that learners with either a converging or assimilating learning style found online learning courses easy and self-satisfying. It was Kolb's learning style inventory that revealed learning styles do not affect successful learning in an online setting; however, it does suggest there is a preference for the online design formatted approach (Gulbahar & Alper, 2011). Additionally, Simmons (2006) conducted studies on the learning style and satisfaction in an online environment of an accommodator, an assimilating, and a diverger learner and found "a student was just as likely to be satisfied with an online course whether he or she was an Accommodator, an Assimilator, or a Diverger" (p. 79). Further studies conducted about Kolb's learning style inventory by Simmons (2006) revealed:

abstract conceptualization relates to the Converger learning style, which includes students who prefer technical tasks and dealing with abstract notions to socializing. This finding also supports previous research, which found that a Converger was the learning style that was most likely to prefer an online course. Thus, it appears that learners who rely primarily on the abstract conceptualization dimension of learning will be more likely to be satisfied with an online course. (p. 79)

Other scholars reported another substantial positive connection concerning “abstract conceptualization and satisfaction” (Simmons, 2006, p. 73), which confirms adult students who have a tendency to reflect in an abstract style when learning, are shown to be more satisfied in an online learning environment (Simmons, 2006).

Bloom’s taxonomy. Bloom’s taxonomy is an outline of learning objectives that classifies pedagogical goals, purpose, and values (Krathwohl, 2002). The revised Bloom’s taxonomy of learning domains characterizes three distinct learning themes: “cognitive—mental skills; knowledge (Krathwohl, 2002, p. 212), affective—growth in feelings or emotional areas self, attitude, or receiving phenomena, and psychomotor—manual of physical skills or perception (para. 2)” (Clark, 2013). However, there were six original categories in the cognitive domain: knowledge, comprehension, application, analysis, synthesis, and evaluation (Krathwohl, 2002). Krathwohl (2002) explained that Bloom’s taxonomy table operates based on “classifying objectives, activities, and assessments providing a clear, concise, visual representative of a particular course or unit. Once completed, the entries in the taxonomy table can be used to examine relative emphasis, curriculum alignment, and missed educational opportunities” (p. 218). According to this study of Bloom’s taxonomy table, facilitators teaching online can use the taxonomy table to determine the areas requiring improvement, whether designing an online course or executing pedagogical strategies.

VAK learning style model. The visual-seeing and reading, auditory-listening and speaking, and kinesthetic-physical, touching, and doing (VAK) learning style model offers another point of view when interpreting or explaining a learner's preferred learning style, perceived strengths, and principal method of thinking. The VARK learning styles survey is one way of interpreting learning styles; Kolb's learning style inventory is another way, Bloom's taxonomy (widely used in pedagogical educational environments) is yet another, and the VAK learning style model is a fourth way. Scholars have supposed that multiple viewpoints of a student's learning style can offer researchers a clearer understanding and broader look into a student's characteristics and learning preferences. The authors of the VAK learning style model concur that most students have at least one principal learning style preference along with a diverse equally poised combination of all three VAK learning styles (Chislett & Chapman, 2012). The VAK model is a learning style survey that can be used as an accessible, prompt method of assessing the preferred learning styles of students.

The Connection of Attrition Rates to Online Learning and the Realization of Student Satisfaction

Adult students suspecting online courses to be easier than traditional classroom courses will possibly withdraw from the course or perhaps not pass their online courses when the educational program proves to be more challenging than expected (Harris et al., 2011). This type of learner experience can attribute to an increase in a university's attrition rate. Previously, realizing a student's attributes and method of comprehension while performing in an online learning environment was frequently unnoticed by educational institutions. Today, however, it has become obvious that it is essential to both the student and the university that a clearer understanding is required of a student's

talents along with his or her individual learning style to assist the student in succeeding while performing in an online setting (Madrigal, 2009). Madrigal (2009) admitted, “discussions of systems reform, or implementation of new programs, are not hitting the mark in solving the problem of high attrition rates among traditional college-age distance learners” (p. 178). Harris et al. (2011) reported, “the problem of attrition in online learning has drawn attention from distance education administrators and chief academic officers of higher education institutions” (p. 1). Park and Choi (2009) indicated “among adult learners enrolled in online studies, about 70% do not complete their programs; maintaining adult online students in their programs has been a continuous problem. This is not a big concern for students attending classes on campus” (p. 207). A professor studying the attrition rates of adult online students concluded that the one factor attributing to a university’s high attrition rates might be associated with a student’s minuscule motivational rate (Madrigal, 2009). Motivation is not the only factor linked to higher education attrition, not knowing a student’s learning style has also been recognized as an influence for causing student attrition (Madrigal, 2009). Students studying in an online setting with a resilient autonomous learning style (Madrigal, 2009) have been identified as successfully completing their online program. Researchers conducting studies on student online attrition mentioned the significance of conducting additional research on adult students’ encounters and gratifying actions while learning online, noting how adult students may possibly utilize various studying strategies when learning and participating in an online program (Parreault et al., 2008).

Researchers further indicated after conducting a meta-analysis of current writings on the subject of student satisfaction in an online learning environment, discovered an

extensive collection of facts that substantiates a student's satisfaction with online higher education learning, which includes: (a) simplicity and significance of assignments and interaction, (b) the accessibility to on-campus established resources, (c) availability of technical support, (d) an initial orientation prior to starting the course, and (e) displayed expertise with hardware and software equipment (Palmer & Holt, 2008). Other studies directed by scholars suggest student retention is directly associated with the ease of access to the online course content and easiness of navigating through the course (Nichols, 2010). In additional findings regarding student retention, Brown et al. (2013) reported "teacher attitudes play an important role in online student retention in some part because teachers are in a central position to identify online students at risk and make decisions about whether to make referrals to student support services" (pp. 64-65).

In fact, adult learners may be capable of experiencing both satisfaction and success in an online course when they are more cognizant of their preferred learning style (Greenberg, 2009). Perreault et al. (2008) pointed out, "key components relating to student satisfaction include detailed information about what was required to complete the module/course, helpful and timely feedback from teachers, and continued communication with the instructor" (p. 167). Researchers studying still other students have uncovered circumstances contributing to student satisfaction while studying in a flexible online environment. The following factors were found to contribute to overall student satisfaction while studying online: "(a) a positive view of technology, (b) an independent learning approach, (c) satisfied with the course itself, and (d) a student's locus of control" (Drennan et al., 2005, p. 334). There were additional factors found to contribute to a student's satisfaction while studying in an online setting that include a student's expertise

with technology along with a student's tenacity to stay focused and self-directed. Even so, other factors contributing to a student's satisfaction involve having good organization and time management skills as well as the ability to communicate and clearly understand how to navigate through an online formatted design. All of these factors contribute to a student's success and satisfaction (Palmer & Holt, 2008). However, even with these contributing factors, it is still ultimately the student's learning style such as being autonomous, self-directed, independent learning, highly motivated, and internal locus of control that brings about total student satisfaction in an online learning environment (Drennan et al., 2005). In summation, Palmer and Holt (2008) reported, "satisfaction in an online environment is directly related to a student's perception that they have achieved higher learning as a result of the online format" (p. 102).

Identifying the Importance of Learning Styles and Learning Preferences

Student learning styles have recently become a significant issue in both online and traditional educational institutions. Wilson (2012) agreed, "educational professionals have demonstrated an increasing interest in learning styles and related assessment instruments, instructional models, and pedagogical techniques" (p. 72). The interest in learning styles has increased because researchers are continually connecting an adult learner's learning styles to online technology and a facilitator's teaching style as well, which at this time is still not a well-developed subject (Zacharis, 2010). Universities have not begun to improve the online environment by merging learning styles into the design of the school's online format and this has become an ongoing unresolved issue. Moallem (2008) produced a:

balanced model for designing instructional materials, the designed specifications (content, curriculum, sequence, presentation, navigation/selection, meta-

cognitive, approaches) was identified. According to these specifications, the instructional materials and strategies are complementary, designed to accommodate all learners by providing multiple instructional opportunities while allowing learners to traverse the course materials according to their learning styles. The specifications of the balanced model for designing instructional materials in learning tasks and activities was formed by using Soloman and Felder's four dimensions; (a.) Self-Awareness, (b.) Meta-cognition, (c.) Problem solving (Develop tasks with a focus on self-awareness, and (d) Meta-cognitions and Problem solving. Kolb's Theory of experiential learning was also used for a framework to determine the proper organization for multiple instructional opportunities in the design of the materials for each unit, which was then used to cater to the learning needs of individuals. (p. 221)

Theoretical assumptions, along with concrete findings, indicate learning styles and learning preferences may have a role in a student successfully completing an online program.

Examiners proposed that there is a definite influential correlation between learning styles and a student's learning progress (Wilson, 2012). Explanations in previous professional writings regarding learning styles and learning preferences indicate how both learning styles and preferences are affecting variances such as "motivation, success, and interaction in online learning environments" (Gulbahar & Alper, 2011, p. 273). However, additional research is required to define the exact impact higher education online learning has on an adult student's learning style. Since learning style preferences can ultimately persuade learners to continue studying, if the student is content with learning in an online setting and if not satisfied with the online learning format, this may cause the learner either to fail or permanently leave the program. Understanding the effects of online education learning and how it can influence a prospective student's learning style either positively or negatively will lead educational institutions to revise online learning and commit to reconstructing a newly designed

format that accommodates students and satisfies adult learners while promoting student retention in online programs.

Guiding this purposeful qualitative research project is the utilization of three highly effective survey instruments: the VARK learning style survey (Drago & Wagner, 2004), the demographic and college information questionnaire, and the specially designed open-ended questionnaire, which were used to determine what specific effects online learning has on adult students' learning styles and preferences. Along with researching students learning styles while studying online, this researcher also expects to reveal a student's opinion about the benefits of an orientation-training program for prospective adult online learners enrolling in higher education programs and entering the online environment for the first time. These findings can possibly result in greater student satisfaction, retention, and successful outcomes when completing an online program. This ongoing interest in the online learning program and the effect it has on adults' learning styles is driven by a goal to ensure each student has a rewarding satisfying experience while learning in an improved online format that is easily approachable by both student and facilitator. Therefore, an online learning format should have a welcoming atmosphere equipped with the tools to deliver the best pedagogical online content available to enrich each prospective adult student learner's life.

CHAPTER THREE: METHODOLOGY

An increase in the number of adults enrolling in online higher education learning has prompted some universities to rise to the expectations of prospective students by transforming the way online learning is administered to potential adult students (Braun, 2008; Madrigal, 2009; McGlone, 2012). Students enrolling in online higher education programs should know what is expected of them and what to expect when learning in an online environment. Therefore, it is imperative that an appropriate detailed orientation program begins at the initial time when a student is enrolled and accepted. Implementing effective changes to online learning such as an orientation plan that includes an online environment tutorial with marginal technical training, as well as the effective utilization of information collected from an enrolling student that indicates the student's learning style and preference, may be beneficial to successfully operating an online higher education institution.

Collecting appropriate information that involves a prospective student's learning style and preference can further assist universities with understanding some of the challenges that can occur in an online environment. Some of these challenges may take place because of a university's unbalanced use of pedagogical learning tools or an administrator not being aware of a student's learning preference along with new students who enroll online for the convenience but have no concept of what an online environment demands (Gilakjani, 2012; Saeed et al., 2009). There have been earlier reports on matching a student's learning style with the instructor's teaching style that suggested this manner of online pedagogical training could assist in motivating a student's process to learn (Gilakjani, 2012). Consequently, accumulating preliminary data on a newly

registered student will ensure universities have the applicable facts to develop additional tools deemed necessary to assist online students with succeeding while learning online (Saeed, Yang, & Sinnappan, 2009).

Utilizing various processes such as orientation programs, technological tutorials, and the university becoming aware of a student's learning styles and preferences can also assist with promoting student contentment while learning in an online environment. A satisfied student will ultimately contribute to lowering attrition rates and strengthen the university's revenue while increasing the student population. Higher education institutions that provide successful online learning situations for new students enrolling for the first time in an online setting will establish a student's expectations by initially clarifying the entire process of online learning (Madrigal, 2009). Accomplishing student satisfaction during higher education online learning can be attained by uncovering a student's preferred learning style. When students' learning styles and preferences includes self-determination, enthusiasm, achievement, and confident collaborations, these attributes of adult students can have a significant role in stimulating purposeful learning in an online setting (Gulbahar & Alper, 2011). Therefore, learning styles can definitely be instrumental in an adult student's reaction to learning while in an online pedagogically-based formatted setting with learners demonstrating a variance of intellectual learning styles and at the same time displaying fluctuating preferences.

Focus of the Study

The chosen qualitative research topic of study "What Impact Does Online Higher Educational Learning Have on Adults' Preferred Learning Styles" was selected because of an interest to reveal a social constructive phenomenon. This social constructive

phenomenon involves, (a) the reality of online learning styles and preferences of adult students, (b) illuminating the influences behind successful online higher education learning, and (c) how an adult student's preferred learning style specifically may have an effect on a student's online learning success. Personal, practical, and intellectual goals assisted with shaping this research project (Maxwell, 2008). The leading goal of this examiner is to support the improvement of adult students' overall online experience when enrolling in and attending a program in an online higher education institution.

Another goal of this examiner was to accurately identify an adult student's perspective of online learning by becoming aware of his or her individual experiences and then capturing and describing his or her learning style and preference as it is experienced while learning in an online environment. It is essential that this examiner interpret a student's real-life experience, mainly the very essence of learning online exactly as it is perceived by the student (Kvale & Brinkmann, 2009). Improving a university's online learning format and the student's online experience will facilitate and promote a successful student outcome (Greenberg, 2009). For that reason, the approach to this study embraced phenomenology, which sought to understand and illuminate the essential themes and explain the phenomenon of adult student participants' real-life experiences while learning in a higher education online setting. The phenomenological approach was chosen to assist this researcher with capturing the conscious experiences of online students, which cannot be realized utilizing a quantitative methodology (O'Connor & Cordova, 2010). When the appropriate methodological approach to research is rigorously applied, the body of knowledge for a built environment can then be established and advanced with assurance (Amaratunga et al., 2002).

This examiner also considered the advantages of universities openly knowing a prospective student's learning style and preference at the time of enrollment and how universities offering an orientation program or tutorial for online studies prior to studying in an online setting can be beneficial to a novice online student, the facilitator, and university. When students are aware of their learning styles and preferences, their method of learning and learning behaviors may conceivably be adjusted to match the online pedagogical format (Gilakjani, 2009). Thereby, further probing into learning style preferences may uncover how adult students have the ability to invent, cultivate, and then alter their personal learning styles and preferences to accommodate learning in an online setting. A student changing and adjusting his or her learning style can possibly occur as the student is experiencing online pedagogical resources as well as attempting to connect with the facilitator and fellow colleagues in the online environment (Gulbahar & Alper, 2011). Recognizing how an adult student can achieve the behavior of adjusting his or her learning styles and preferences to match the online format and facilitator's pedagogical method of teaching, may assist universities with maintaining satisfied online students and empower students to succeed.

Research Design

The objective of this examiner was to design an explicit study that involved openly and clearly presenting a research project that expressed the strengths, limitations, and implications of the study (Maxwell, 2008). Bell (2005) explained research as "seeking through methodological processes to add to one's own body of knowledge and hopefully to that of others, by the discovery of non-trivial facts and insights" (p. 2). While this assertion is regarded as reliable, using the word non-trivial, which implies

inconsequential facts, can be problematic since insight and knowledge (Bell, 2005) is perceived differently from one student to another depending on the student's understanding of the shared reality. In applying this concern to a new research project, it is inevitable that the worthiness of this inquiry be placed only in the research concept utilized commencing with its suitability for persistence, the obvious value and reliability in the collection and analysis of the data, along with any gained insight and knowledge, and finally its usefulness for the individuals in which it is intended (Bell, 2005). Further research conducted by Bell (2005) also recognized "it is a systematic approach that is important and not the title of research, investigation, inquiry or study" (p. 2).

Even though there are different relevant philosophical views in phenomenology, this unstructured qualitatively designed project employed one that is suitable for this type of study, and in so doing, the hermeneutic phenomenology approach was utilized. The hermeneutic phenomenology approach not only focused on describing the conscious essence of the phenomena surrounding an adult student's learning style and preference, but also searched to expand on the interpretive dimensions of this phenomenon (Finlay, 2009). Finlay (2009) stated, "phenomenological research aims to capture subjective, 'insider' meanings and what lived experience feels like for individuals" (p. 475). Ajjawi and Higgs (2007) disclosed, "the use of hermeneutic phenomenology enables the exploration of participants' experiences with further abstraction and interpretation by the researcher based on researchers' theoretical and personal knowledge" (p. 616).

Conversely, the concept of phenomenological reduction that was applied is where an individual is believed to have the capability to suspend judgment with regard to common inexperienced ethical belief in the reality of the exterior domain and as a result, observe

an experience as it is originally presented to consciousness (George, 1993). In this manner, the suspension of pre-assumptions called epoché is another word for suspending judgment or bracketing (Beyer, 2013). Accordingly, bracketing was utilized during this phenomenological study to focus more on the factual experiences of participants during the research instead of the interpretation of this examiner (George, 1993).

There are several ways to measure a student's learning abilities such as that demonstrated with Bloom's taxonomy, which recognizes three important learning capacities (a) cognitive, (b) affective, and (c) psychomotor (Chapman, 2009). All three learning areas establish the various learning styles such as comprehension, consciousness, and communication, which are continually utilized while learning in an online educational setting. In addition to Bloom's taxonomy, Kolb's learning style inventory model is also used to measure a student's learning proficiencies. Kolb's all conclusive four-step teaching and learning style inventory includes, (a) accommodating (concrete experience/active experimentation); (b) assimilating (abstract conceptualization/reflective observation); (c) converging (abstract conceptualization/active experimentation); and (d) diverging (concrete experience/reflective observation; Chapman, 2013), which are considered highly effective projections of learning styles.

Further expansion of Kolb's learning style inventory, version 3.1, as revised by Kolb and Kolb (2005) "described the theory in detail in *Experiential Learning: Experienced as the Source of Learning and Development* (Kolb 1984), is built on six propositions shared by other scholars" (p. 2). The six foundations of learning and development acknowledge, (a) learning can appropriately be perceived as a process and not expressed as an outcome, (b) all learning is actually rediscovering the knowledge

initially acquired, (c) learning necessitates finding solutions to oppositions that involve dialect differences to approaches in adapting to worldviews, (d) learning is a universal progression of adapting to the world, (e.) learning is caused from collaborative connections that include an individual and the built environment, and finally, (f) learning is the practice of establishing knowledge (Kolb & Kolb, 2005). Experiential learning further concludes that Kolb's learning style inventory is a credible source for recognizing a student's learning style and preference.

While explanations of Bloom's taxonomy and Kolb's expansion of the learning style inventory model are both described as great resources for determining a student's learning style and preference, this research project utilized the VARK learning style survey. The VARK survey is a distinctive learning style survey that is perceived as being more applicable to the focus of this study. The VARK learning style survey (Appendix B) was not the only instrument employed during this study. However, there are key reasons for utilizing the VARK learning style survey. One reason is that the survey offered ease of use while also providing the investigator with detailed identifiable conclusions from the results of the prospective student participant's responses. Another reason this survey was chosen is that the VARK learning style survey has been utilized in earlier studies of students' learning styles when learning has taken place in an online educational environment. The last reason is that some scholars have concluded that the VARK learning style survey is a reliable source for recognizing a student's learning style and preference (Bernier, 2009; Drago & Wagner, 2004; Zapalska & Brozik, 2007).

The VARK learning style survey involved the visual learner, aural learner, read/write learner, and kinesthetic learner (Bernier, 2009; Drago & Wagner, 2004; Zapalska &

Brozik, 2007). The VARK learning style survey questionnaire is a 16-question survey that has the ability to define participants' learning styles (Fleming, 2011). The author and owner of VARK learning style survey, Neil Fleming's integrity can be attributed to having over 40 years of educational experience (Bernier, 2009). Therefore, the VARK learning style survey was applied when surveying a randomly solicited sample of 31 higher education adult students enrolled at Concordia University Chicago in an online organizational doctoral degree program. A 16-question demographical and college information questionnaire (Appendix A) was also administered to the random sample of 31 potential student participants.

It is proposed that the VARK learning style survey that includes 16 questions be administered to a small sample of approximately 10-15 selected student participants learning in an online higher education setting. The 10-15 selected participants are students who may have already completed their studies and obtained degrees from an online higher education facility or are currently attending an online higher education institution, enrolled in a graduate program. The following instruments were presented to the 10-15 potential student participants, the 16-question VARK learning style survey, the 16-question demographic and college information questionnaire, along with an exclusively designed open-ended questionnaire with 11 questions. The specially designed open-ended questionnaire was used to interview each one of the projected 10-15 selected participants to explicitly uncover a student's in-depth, meaningful, lived, online learning experience as it applies to the student's innermost feelings about the online environment, which conceivably added additional validity to the project.

Since the proposed 31 doctoral student participants are studying online in an organizational leadership program at Concordia University, the assumption is that it may not be possible to retrieve in-depth interviews with these participants by telephone or face-to-face. It was also not likely that the specially designed open-ended in-depth questionnaire, in addition to the 16-question VARK learning style survey and the 16-question demographic and college information questionnaire, would have been received constructively due to the number of questions on each survey presented for the research study. Thereby, it is not likely that a response through social media from the proposed 31 student participants for the specially designed open-ended questions would have been received as positive, but perhaps perceived negatively due to the questions and potential time restraints in completing all three surveys online. In light of this perception, this investigator interviewed the small selected group of 10-15 potential student participants. Some of the interviews were conducted by telephone, others face-to-face, and a few were emailed or faxed. The interviews were conducted by these various methods, as required to gain a more pronounced illuminated view of a student's opinions regarding learning in an online setting and their online, lived learning experience as it pertained to their individual learning styles and preferences.

This unstructured qualitative approach allowed this examiner to concentrate on the lived experiences of the online student participants and their learning styles and preferences being studied. Maxwell (2008) indicated that an unstructured approach also "allows for generalizability and comparability for internal validity and contextual understanding and is useful for understanding the processes that have led to the specific outcomes" (p. 233). This investigator also employed triangulation by utilizing two

diverse sources to collect pertinent data and several different data collection strategies. To increase validity, the data were collected from the possible 31 student participants attending Concordia University online and from the potential 10-15 student participants selected for the research project. The different data collection strategies included utilizing a Web address link on Mr. Fleming's private website to collect and analyze the responses of approximately 46 students participating in the VARK learning style survey along with the other collection methods used, which included the SurveyMonkey Web address link for the demographic questionnaire, as well as the following methods employed to collect responses for the specially designed open-ended questionnaire; face to face interviews, telephone, email, and facsimile to gather data (Yeasmin & Rahman, 2012) as required. Yeasmin and Rahman (2012) reported triangulation "is not aimed merely at validation but at deepening and widening one's understanding" (p. 161).

Selection of Subjects

Selection of participants for this project began with purposeful sampling by randomly soliciting a diverse group of approximately 31 higher education adult students who are enrolled in an online organizational leadership doctoral program attending Concordia University in Chicago, a centrally located private online university. The 31 student participants were randomly selected for purposeful sampling, which was employed to achieve descriptiveness (Maxwell, 2008). Although possibly 31 participants were planned for this research project, the response return rates can be unpredictable. Theoretically, of the 31 randomly solicited sampled participants, a 50% student response ratio would be ideal for this research study. Concordia University Chicago's student participants were randomly solicited with the assistance of the director of academic

research, an employee of Concordia University Chicago. Purposeful sampling of the proposed solicited 31 student participants was conducted to determine their individual student learning styles and preferences.

To ensure each student's confidentiality and that proprietary guidelines were adhered to, no personal information such as names or addresses was required or collected from any of the 31 students participating in the study. Only the consent form requiring no signature (Appendix J) was emailed to each student participant attending Concordia University Chicago and the responses to the demographic and college information questionnaire was retrieved utilizing SurveyMonkey's web address link. The VARK learning style survey, which consists of 16-probing questions, was administered to reveal the learning styles and preferences of each student participant. This researcher was shadowed by the university's academic director of academic research during the entire research process. The representative of the university assisted this examiner with all pertinent processes regarding the university's procedures during the study. The 31 mixed group of possible student participants may be comprised of various age groups beginning with baby boomers ranging in ages from 68 to 49, generation X from ages 48 to 32, and last the millennial generation from ages 31 to perhaps 29 years old or younger in which some of the student participants may possibly reside in geographically different locations. To clarify the role of the university's academic director of research, the director ensured that the examiner observed all required research project policies of the university including the administration of all survey instruments, the consent form, as well as the demographic college information form. Again, an informed consent form was

administered to Concordia to gain consent from each student participant before performing the study or retrieving any raw data.

In addition to administering the informed consent forms requiring no signature to each student participant attending Concordia University, informed consent forms requiring a signature were distributed to and collected from each of the possible 10-15 selected student participants before data collection began. The risks remained minimal since participants' signatures collected by the investigator were securely stored in a locked file cabinet during the examination process and will be properly destroyed three years after this research study is completed. The small group of approximately 10-15 student participants who have experienced higher education learning in an online environment at various online universities were selected for purposeful sampling as well. Purposeful sampling was applied to the small group of 10-15 student participants to yield predictability of the environment, students, and their learning experiences. Maxwell (2008) stated, "typicality and relative homogeneity provides far more confidence that the conclusions adequately represent the average members of the population" (p. 235). Throughout this research project, it is the intent of this examiner to capture detailed lived-experiences, which include a variety of specific reflective student encounters while attending an online higher education institution.

The 10-15 student participants chosen will be enrolled in advanced degree programs or may have previously graduated from an online university within the last five years. Again, it is still impossible to predict the exact number of responses that will be answered from the 10 to 15 student participants. However, the best rate of expectancy would be a 50% student ratio of instrument completion. Another challenge in conducting

this study may be forecasting the completion rate for the specially designed open-ended questions, the VARK learning style survey, and the demographic and college information survey. Any one of the survey instruments has a possibility of not being fully completed due to unforeseen circumstances experienced by the participating students. In addition, it is only by way of hypothetical considerations that the 10-15 student participants may have cultural, gender, or age differences as well as demographical variances.

Instrumentation

The instruments utilized for this learning style and preference research project consisted of a 16-question VARK learning style survey, the specially designed open-ended questionnaire comprised of 11 questions, and a 16-question demographic and college information questionnaire. These separate methods of query were utilized to collect insightful themes that captured the real voice and lived experiences of the student participants learning in an online setting in which the investigator hoped to closely perceive these occurrences by describing and interpreting the experiences as they were actually lived, from the student's perspective. Mr. Neil Fleming was contacted in advance to gain permission to use the VARK learning style survey. Copyright information has been included for the VARK learning style survey designed by Fleming (Appendix C).

Procedures

Instructions on how to access the VARK learning style survey and the demographic and college information questionnaire were indicated on the informed consent forms that each student received. The 31 potentially solicited participating students attending Concordia University Chicago online and the 10-15 selected student

participants attending other private or public online universities received the VARK learning style survey by accessing the private address link and also retrieved the demographic and college information questionnaire by accessing an address link provided by SurveyMonkey. The total possible 46 student participants had access to the 16-question VARK learning style survey by way of a private website set up by the owner and designer of VARK, Mr. Fleming. Only the investigator and student participants had access to the private VARK learning style website. The researcher assigned special codes to each student participant to conceal each student's identity in advance of the VARK learning style survey being administered. Once the VARK survey was completed by the participating students, Mr. Neil's examiners began interpreting and analyzing the results of the survey. The researcher was the only person with access to the results of the VARK survey. The completed student participants' responses to the 16-question demographic and college information questionnaire accessed through an address link administered by SurveyMonkey were also interpreted and analyzed by SurveyMonkey. Once the VARK survey and the 16-question demographic college and information questionnaire were retrieved, interpreted, and analyzed, the data were locked in a file cabinet pending the completion of all raw data being interpreted and analyzed. Again, the informed consent form requiring no signature was forwarded directly to Concordia University Chicago's academic research director to ensure each of the 31 potential student participants agreed to participate in the study prior to the study. Each of the 10-15 potential student participants also received the informed consent form requiring a signature agreeing to the study before collecting data.

This researcher, as the main investigator, administered the specially designed open-ended questionnaire to the 10-15 student participants by utilizing typed paper documents distributed and administered to participants face-to-face, by telephone, facsimile, or emailed as required. The 11 questions were specially designed to disclose in-depth lived experiences and were administered verbally in some instances with the responses captured in a private closed door setting to securely retrieve student participants' responses whenever performing face-to-face interviews. When telephone interviews are performed, hand transcription was completed to capture and collect the participants' responses to the 11 open-ended questions. Caution was applied when transcribing the students' answers to the survey questions to ensure the student participants' exact words were transcribed on paper. The answers to each question were verified by repeating responses for clarification. Again, the investigator examined and reexamined responses to ensure credibility and truthfulness ensuring precise transcription. Both the thematic approach and Atlas.ti qualitative software program was used to interpret and analyze the responses to the specially designed open-ended questionnaire collected from the student participants.

The principal reason for administering the 11 specially designed open-ended questions was to assist with defining the impact or relationship and benefits of a student's preferred learning style as it relates to the successful outcome of studying in an online higher education environment. The examiner also wanted to gain students' opinions about universities enhancing their online programs by offering an orientation and mini-training program to new students enrolling in online programs and to the novice technical student. Again, the thematic approach and Atlas.ti qualitative software was used to

develop the main themes and discover essential ideas while interpreting and analyzing the 11 specially designed open-ended questions. The following are the research questions or specially designed open-ended questions administered to the 10-15 student participants.

Research Questions

- What are some of the main reasons higher education students enroll in online courses instead of traditional on-campus courses?
- What specific preferred learning style (See VARK learning styles) is most compatible in an online learning environment?
- Which one of the preferred learning styles (see VARK learning styles) will be beneficial in assuring adult learners have a successful online learning outcome?
- Which one of the preferred learning styles (see VARK learning styles) will affect an online student's perseverance and enthusiasm to continually learn in an online higher education environment? Why?
- How have technological advances in online learning affected a student's capacity to succeed in an online degree program?
- What can be done to prepare students adequately to use online course related resources and technologies? Should a preliminary technological tutorial be offered to new students?
- How can the online learning environment be improved to align with a student's preferred learning style (see VARK learning styles)?
- What influence or relationship does online higher education have on an adult's ideal learning style (see VARK learning styles)?

- What impact do learning styles (see VARK learning styles) have on the adult learner's performance in an online highly technical formatted educational setting?
- How would an orientation program explaining online learning processes, implemented by an online university, benefit a student during the initial enrollment in an online learning program? Should this type of training be offered at all online universities? Why?
- Would adult students recommend an online learning program in a higher education university to a friend or family member? Why or why not?

The research questions may be modified or revised at any time during this research study to gain in-depth insight, develop additional themes, or redefine essential facts.

Assumptions, Limitations, and Delimitations

Experiential data were observed in this study as the main foundation for awareness, assumptions, and to check for soundness and validity. However, in no way were personal assumptions imposed during this study. In this research project, analytical partiality was observed for critical subjectivity, which implies an element of consciousness is present where primary experience is not suppressed. Neither is one allowed to be moved from mindfulness nor astonished by it; instead, experience is raised to consciousness and utilized as a component of the investigation process (Maxwell, 2008). For that reason, reflections of different experiential aspects are being identified as being relevant to the study and are expressed as the researcher's experiential subjectivity (Maxwell, 2008).

Reflecting back to when this investigator first enrolled in an initial online course, this examiner remembers feeling apprehensive about not knowing what to expect or what

was required of a student in an online learning environment. Almost a year later, still in the online program, the anxious feelings had diminished to some extent. Although even now, the examiner can still remember the exact moment of consciously becoming aware of a need to improve the experiences of adult students enrolling for the first time in an online learning higher education environment. Mindful of the initial online individual experience it may be important to online students, online universities, and society as a whole that a student's online experience be one that is productive and satisfactory. Shortly after, this investigator proposed to make it a mission to assist new prospective adult students enrolling in online higher education institutions by ensuring their online experience is one filled with contentment and success.

It is a hypothesis of the investigator that each student participant will respond with integrity to each question on all three of the survey questionnaires since anonymity and confidentiality of each of the participants will be maintained. Each student participant was solicited on a volunteer basis and had no obligation to complete any of the surveys, but could withdraw from the research project at any time, for any reason, without any consequences. Anonymity was preserved for all student participants by ensuring all data collected for this research study be stored in a securely locked cabinet for three years. Confidentiality was also maintained since no private information such as names, addresses, or identifying information was collected from the possible 31 student participants during this study. Privacy of the 10-15 student participants' collected signatures also will be sustained since the investigator is committed to maintaining possession and concealment. Other information collected from all student participants

will only include demographic facts, college information, and data regarding each student's learning styles and preferences.

Researchers have argued learning style studies should be measured in a valid and reliable manner that entails rigorous testing in a real life situation (Wilson, 2012), which when properly applied, will produce credibility and reliability. There are anticipated limitations to this study such as inconclusive outcomes that may be associated with student participants only responding to one survey or not responding to any of the surveys due to time restraints, unconscious student participant biased responses, or written responses not accurately transcribed. Another limitation may include the inexperience of the investigator overlooking specific themes pertinent to the research project. Although every effort was made to capture essential themes by utilizing the thematic process and qualitative software to develop key themes completely and then reexamining central themes completely and conclusively to confirm total reliability of an online student's real-life perceived experience. Still another limitation may involve research questions not aligning with the research project's objective, even though the research questions were modified as required to adhere to the research project's tailored goal. If additional limitations are discovered, these limitations will be included in the research study. This study was performed based on certain selected facts replicated from previous studies; therefore, multiple themes were expanded and developed as the study progressed. Delimitations foreseen during this study involved research being conducted with the 31 student participants attending a private university where the specific online design or format of their university may be significantly different from a public online university. In addition, even though raw data were collected from the smaller selected

group of 10-15 student participants who may have attended a public university, being a considerably smaller group, the 10-15 students may not yield any significant information to contrast the difference between online formatted designs in private or public universities.

Data Processing and Analysis

The 16-question VARK survey was collected, interpreted, and analyzed by Dr. Fleming's employees who are employed for this task. The 31 randomly solicited sample of student participants and the selected 10-15 small group sample of student participants accessing the private website to receive and complete the VARK survey also submit their responses to be processed and analyzed utilizing Dr. Fleming's private website address, in which the investigator also has exclusive access to the results. The 11-question specially designed open-ended questionnaire was analyzed by the investigator while the 16-question demographic and college information questionnaire was separated and organized for analysis by SurveyMonkey. The investigator ensured all raw data were properly processed by reading through the themes of all the remaining raw data. All of the raw data were then evaluated and analyzed using the thematic process and Atlas.ti qualitative software program to capture student participants' hidden meaningful themes and viewpoints. The Atlas.ti qualitative software program was employed to first search for similar emerging themes and then to identify themes by redefining and organizing the themes into specific categories, which were further analyzed to completely intensify specific theme connections. At this point, a clearer meaning of the data can be interpreted. After analysis of all the data is completed, it was expected that no additional

analysis of the data would be necessary. At any time during this research study, changes to the original design were altered to gain reliability and credibility.

CHAPTER FOUR: RESULTS

Restatement of the Purpose

The continual advancements in technological evolution have brought about a completely different way of learning for adults entering higher education distance learning. Adults looking to earn degrees attending online courses have actually discovered a new way to maintain their full-time jobs and spend more quality time with their family, friends, and other social activities by simply enrolling in online learning programs with universities that offer convenient and flexible programs. However, professionals conducting previous studies have shown that these adult students enrolling for the first time in online programs have no concept of what an online learning environment involves, since some universities might not provide a tutorial or orientation program. As noted by scholars, students enrolling online for the first time might miscalculate their technological expertise, therefore, benefiting from an initial orientation program (Perreault et al., 2008). A few important points to consider while learning in an online environment are that some students enroll in, and begin attending, online courses for the first time to find that they are unclear about the impact online learning could have on their learning style. A number of students learning online are not aware of their specific learning styles or if they process suitable learning styles to achieve success while learning in an online environment (Clarke, 2007).

Therefore, this qualitative phenomenological study was conducted to uncover the direct impact learning online has on a student's learning preference and also to determine what effect the online environment has on a student studying online for the first time. In an effort to gain insight into this topic, three distinctive research instruments were applied

to this research project, (a) the Demographic and College Information Questionnaire, (b) a specially designed open-ended questionnaire, and (c) the Visual, Aural, Read/write, and Kinesthetic (VARK) Learning Style Survey, to gather data that would assist in determining the basis for student achievement and satisfaction while learning in an online degree program.

Foundational Information

The three instruments; the demographic and college information questionnaire, the specially designed open-ended questionnaire, and the VARK Learning Styles Survey were provided to enhance the research study by capturing thick, rich, personally lived experiences from students who were attending or have attended online universities. An observation worth mentioning in reflecting on this qualitative study is that analytical numerical tests, such as an ANOVA or *t*-test, performed in a quantitative research project were not deemed appropriate to perform in this qualitative study, since the data collected were of a subjective nature and truthfulness and reliability of the revealed findings could not be achieved with a single group of students presenting their personally lived online experiences while attending Concordia University Chicago or other various online universities.

The examiner solicited 31 students attending Concordia University Chicago enrolled online in an organizational leadership program during the summer semester 2014 for this project. An email was sent by an administrator of Concordia University Chicago requesting students to participate in the study comprised of two instruments, the Demographic and College Information Questionnaire and the VARK Learning Style Survey. However, of the 31 total possible students enrolled online, there were seven who

actually completed the Demographic and College Information Questionnaire and the VARK Learning Style Survey. Perhaps due to the summer semester and students possibly not checking university email, only a total of 7 students of the possible 31 attending Concordia University were available and completed the 2 instruments presented. Consequently, there was a possible total of 46 (31 Concordia University students and 15 students attending other various online universities) combined available for this research project at the time of the study.

Although there were three instruments, the student participants attending Concordia University Chicago enrolled in an online organizational leadership program completed only two instruments: the (a) Demographic and College Information Questionnaire and the (b) VARK Learning Style Survey. However, the students attending various other universities participated in all three instruments: (a) the Demographic and College Information Questionnaire, (b) the Specially Designed Open-ended Questionnaire, and the (c) VARK Learning Styles Survey. The open-ended questionnaire was not administered to the students attending Concordia University Chicago because there might have been some reluctance since the specially designed questionnaire appeared excessively lengthy to complete. Furthermore, some of the questions, unintentionally, might have appeared biased toward Concordia University, prompting a skewed response from the students.

Results of Instruments One, Two, and Three

Definite responses to the Demographic and College Information Questionnaire were as follows; a total of 16 student responses were collected; 7 participants from Concordia University Chicago and 9 responses from the students attending other various

universities. The Demographic and College Information Questionnaire was used to collect demographic data and technical information that is normally utilized while attending an online university. This Demographic and College Information Questionnaire included 16 questions that were more explicitly intended to assess the students' demographics and computer and Internet knowledge. Student participants from Concordia University and those attending other various online universities were able to access the demographic survey utilizing SurveyMonkey's private website. SurveyMonkey, with permission, administered the survey to the participating students and once completed, analyzed the results. The following questions were administered, collected, and analyzed by SurveyMonkey as part of the Demographic and College Information Questionnaire. These questions directed this demographic research as well as the findings, which focused on representing each student's responses.

Q1. Are you currently enrolled in an online higher educational advanced degree program? As shown in Table 4, 75% of the student participants were enrolled in an online degree program while the other 25% had already completed their respective degree programs at the time of this study.

Table 4

Students Currently Enrolled (Q1)

Answer Choices	Responses	
Yes	75%	12
No	25%	4
Total	100%	16

Q2. What type of degree are you currently pursuing? Some of the student participants were pursuing doctoral or master's degrees in higher education. A small

percentage of the students were not enrolled in degree programs but had completed their respective degrees and were pursuing other endeavors.

Table 5

Type of Degree Being Pursued (Q2)

Category
Ed.D.
I'm not enrolled in classes
PhD in Organizational Leadership
PhD Organizational Leadership
PhD - Organizational Leadership
Leadership and Education
Organizational Leadership
Paralegal Certificate
Doctorate in Educational Psychology
Masters in forensic psychology
Pediatric Dentistry
Recently completed a Master's Degree
PhD Nursing
I have recently completed Governors State University's Online Teaching Program.
Graduate Study degree in Human Resources
Completed Degree Organizational Leadership Ph.D. Psychology

Note. Students learning online (n = 16)

Q3. What academic year of your program are you currently in? Students' prospective academic year is indicated as currently enrolled or completed. Seven students (43.75%) were in the first or second year of their degree program. Six students (37.50%) were in their third and fourth year. While three to four students (18.75%) indicated, they had completed their degree programs.

Table 6

Current Year of Academic Program (Q3)

Students in degree programs	Students completed degree programs
Beginning first year	I completed the program in March
First year	I have completed the program
First year	I'm not enrolled in classes.
First year	
Second year	
Second year	
My second year, last semester of the year	
Students in third and fourth year of degree programs	
Third year	
Third year	
Fourth year	
Currently writing my dissertation (year 4 of 5)	
Fourth year	
Last year	

Note. Students learning or previously learning online (n = 16)

Q4. Are you in a program with classes that are 100% online? As shown in Table 7, 75% of the students were in an online program during this study; 25% had completed their degree programs.

Table 7

Programs 100% Online (Q4)

Answer Choices	Responses	
Yes	75%	12
No	25%	4
Total	100%	16

Q5. Please choose the age group that comes closest to your age. Contributors completing this survey indicated their age at the time of this study. There were no 18-25 online learner participants.

Table 8

Ages of Participants (Q5)

Answer Choices	Responses	
18-24	0.0%	0
25-34	31.25%	5
35-44	25.00%	4
45-54	12.50%	2
55+	31.25%	5
Total	100%	16

Note. Total respondents: 16

Q6. Please identify your gender. The gender of respondents participating in the study showed 10 female participants (62.50%) and 6 male participants (37.50%).

Table 9

Identifying Genders (Q6)

Answer Choices	Responses	
Male	37.50%	6
Female	62.50%	10
Total	100%	16

Q7. Which of the following do you identify as your computer skills level?

Participants in this study were 75% proficient and 25% adequate. No participants were found to be less than adequate.

Table 10

Computer Skills (Q7)

Answer Choices	Responses	
Proficient	75%	12
Adequate	25%	4
Less than adequate	0.00%	0
Total	100%	16

Q8. Please identify your race. These totals are only attributed to this research project and the number of students that actually completed questionnaires and are not representative of any university's student populations.

Table 11

Participants Ethnicity (Q8)

Answer Choices	Responses	
White	31.25%	5
Hispanic	6.25%	1
African American	56.25%	9
African American, Hispanic	18.75%	3
Asian, Pacific Islander	12.50%	2
Native American	6.25%	1
Total	100%	16

Q9. What is your experience with social networking sites? Participants described their experience with social network sites.

Table 12

Network Sites Experience (Q9)

Answer Choices	Responses	
Beginner	12.50%	2
Intermediate	43.75%	7
Advanced	43.75%	7
Total	100%	16

Q10. Which social media sites do you use? This table indicates that participants' use Facebook, LinkedIn, and YouTube more than other social websites such as Twitter, blogs, or other unspecified social networks. A note from one student indicated that the online university he attended did not provide a social network for the students; so, he was not familiar with social networks. Another student was not familiar with social networking.

Table 13

Media Sites Utilized (Q10)

Answer Choices	Responses	
Facebook	75%	12
LinkedIn	75%	12
Twitter	43.75%	7
YouTube	75.00%	12
Blogs (reading or writing)	18.75%	3
Other (please specify)	6.25%	1
Total	100%	16

Q11. What other sources of information besides social media did you use to research your current university? Participants indicated the resources used to research and locate their universities involved various resourceful influences. The resources were broken down into three categories; (a) human or referral resources, (b) Internet resources, and (c) other resources used in determining which of the universities were most favorable. Human contributing resources were attributed to 43.75% of previously attending online university student referrals; while Internet resources contributed to 56.25% of the referrals by looking online to find the most favorable online universities. One student did not use human contributing resources or the Internet in determining the best decision for choosing his or her university.

Table 14

Resources Used to Research Universities (Q11)

Category	Resource
Human contributing resources	School advisors/family/friends Word of mouth Recommendations from prior colleagues and friends Verbal communication Word of mouth, Internet searches Word of mouth, Internet searches Word of mouth/colleagues
Internet contributing resources	US News and World Report Best Colleges report-online I used a simple google search to research the university The university websites Online website, Internet and library School website Google searches of the professors teaching within the program Google No social media was used, only Internet searches. Institutional website
Other contributing resources	None

Note. Students learning online (n = 16)

Q12. What part did social media play in choosing your college and what was the importance of that social media information in your overall college choice? Six students indicated that social media played a part in choosing their university. Ten students reported that social media did not play a part in their decision to choose a university.

Table 15

Choosing a College Using Social Media (Q12)

Category	
Social media played a part in choosing a college	<p>I learned the potential and cost of the Northern Illinois University to my future endeavors.</p> <p>College selected because it was one of few accredited which offered my course of interest.</p> <p>Although social media was not a component of my college choice, social media did aid in my choice of higher learning.</p> <p>A major part</p> <p>Social media played an important role in my overall college choice.</p> <p>Social media helped me find out a lot of information in choosing my college and helped me make the right choice in choosing my college.</p>
Social media did not play a part in choosing college	<p>It did not play a part</p> <p>None</p> <p>None</p> <p>Little to non - I selected my university based upon past experiences / touch points. I was also interested in the ability to transition my studies into my parochial school I work at.</p> <p>None</p> <p>None</p> <p>None</p> <p>None</p> <p>None</p> <p>None</p>

Note. Students learning online (n = 16)

Q13. What was the most helpful source of information to you when you were choosing a college? In choosing a college, participants showed three different categories.

Table 16

Helpful Information when Choosing a College (Q13)

Category	
Cost, extra-curricular programs, location, accreditation, and duration	<p>How much did the university cost? What major did they have available? What extra-curricular programs did they have to offer me?</p> <p>The location of the college</p> <p>The cost of the program and its accreditation</p> <p>One of the most helpful sources of information was the program overview, contact person, and tuition information.</p> <p>Program and cost</p> <p>Price</p> <p>Program goals, cost, duration, and acceptance criteria</p>
Best colleges, student reviews, programs, and standards	<p>U.S. News and World Report-Best Colleges</p> <p>Looking at students reviews of the university</p> <p>Descriptions of program and courses</p> <p>The Quality and Standards of the College</p> <p>College Home Page</p>
Recommendations and graduation	<p>Word of mouth from colleagues, graduates of Concordia</p> <p>Graduation rates, prior student experience, ability to prepare me for the medical field.</p> <p>Word of mouth</p> <p>Recommendation by former student and by professor at a university in Montana</p> <p>Phone calls from program professors</p>

Note. Students learning online (n = 16)

Q14. To what extent are you aware of your university's Facebook page and do you utilize it? Two categories were developed: (a) 68.75% of the participants did not use Facebook or were unaware of its use and (b) 31.25% were aware or have become aware and used Facebook.

Table 17

University's Facebook Page (Q14)

Category	
Does not utilize university's Facebook page	I am aware of the university Facebook page but I have never utilized it
	I have very little knowledge of the university's Facebook page.
	No, I do not utilize the university's Facebook page
	Unaware
	I do not utilize my university's Facebook page
	No
	I am not aware of my university's Facebook page
	Not interested
	Don't utilize the university Facebook page (as an out of state student - not applicable), I might have used it if I lived near the campus
	None
Utilizes university's Facebook page	Was not aware
	I do not use
	I located the school's Facebook page in my last quarter
	I am very much aware of the face book and I utilize it sometimes
	Wasn't aware - just looked it up
	Very aware of the Facebook page, utilize it rarely
	Very aware, yes

Note. Students learning online (n = 16)

Q15. Does your university have a blog and if so do you utilize it? Only 18.75% of the student participants used the university's blog; 68.75% did not use the university's blog and 12.50% of the participants indicated the university did not have a blog.

Table 18

Utilize the University's Blog (Q15)

Category	
Utilizes university's blog	Yes Yes, Yes Probably. Blackboard is where I spend all my time - it does not have links to blogs, social media, etc.
Does not utilize university's blog	I'm not sure if NIU has a blog and no I do not utilize it I am not sure if the university has a blog. No, I do not use it. Unsure The university has a blog, but I do not use it. Yes it does but no I don't Have not idea. I would not use it. I have no idea No No N/A I do not use the blog or any sort of social media in reference to the University
University does not have a blog	Currently, my university does not have a blog. No. My university does not have a blog.

Note. Students learning online (n = 16)

Q16. How do you feel about your university's social networking sites? Three categories were established for respondents' answers to their feelings about the university's social network sites, positive = 6.25%, negative = 43.75%, and neutral = 37.50%.

Table 19

University's Social Network Sites (Q16)

Category	
Positive response	I am very open to participating in social networking sites with my university. I believe that using social networking online is an excellent way for students to interact educationally. Very good well - now that I've looked at them, I think they will be helpful. It would be great if they provided more accessible links in the LMS!
Negative response	They are simplistic and not noticed for their presences on social networks. Not familiar They are not user friendly I believe that my university can improve on their social networking sites. Not interested I wouldn't use it. They seem almost amateurish in comparison to other institutions.
Neutral	I have no opinion at all. The university's social networking sites just give general information about the school and its students. Neutral N/A Not Applicable/I do not use other than if there is a link in an email The university does use a portal / blackboard program, which does have some social networking layers. It's okay.... But, again - not a major factor since I live out of state.

Note. Students learning online (n = 16)

In addition to the Demographic and College Information Questionnaire, two other instruments were executed to provide further awareness of online learning's impact on a new student through discovery of new ideas and perhaps uncovering a student's perceived association to the research topic. The two instruments included the Specially Designed Open-ended Questionnaire and the VARK Learning Styles Survey. Therefore, the second research instrument was utilized to question approximately 11 student participants of a possible total of 15 originally solicited adult students registered in diverse online programs at various universities. Again, only students attending various

other universities were examined using the Specially Designed Open-ended Questionnaire; the outcome of this questionnaire rendered 11 student responses. After the examiner evaluated each of the 11 participants, the results indicated 4 of the students had already completed their respective online degree programs and graduated while the remaining 7 students were still in their particular degree programs, attending various online universities. Each of the 11 student participants were also interviewed to discover the impact online learning had on adult students' learning styles using a specially designed questionnaire comprised of 11 open-ended questions.

In applying this specially designed questionnaire, the research questions also explored student participants' opinions regarding the outcome of universities providing newly enrolling students the opportunity to attend an orientation program that would be available at the time of registration before students began their online programs. The examiner designed the research project to include questions about an online orientation or tutorial program to possibly assist new online students by setting their expectations and introducing online learning before the student attended the first course. The study was conducted by administering four face-to-face interviews, three telephone interviews, three emailed questionnaires, as well as one faxed copy of the Specially Designed Questionnaire. Once the participants had finished the questionnaires, they were returned by emailing or faxing the completed copies to the examiner. In an effort to extract meaningful, thick data (also considered big data that assists with uncovering insightful kinds of themes) from the online student participants, reliability checks and reexaminations of the collected data were employed with each of the 11 participants to ensure data were unmistakably captured.

Once the interviews and reexaminations of the 11 student participants were completed, the collected data for the Specially Designed Open-ended Questionnaire were analyzed by the examiner to develop themes, and then re-scrutinized to uncover linked categories. Further analysis was conducted by the examiner utilizing Atlas.ti, a qualitative software program to manipulate the data collected and expand on the developed themes by looking for co-occurrences to extract additional meaning from the data providing the final results for each of the 11 open-ended research questions. The following tables are findings from the lived experiences of online participants, questioned by the examiner using the Specially Designed Open-ended research questions. These questions controlled the study along with the pertinent factual categorical responses resulting from the analysis of data provided by each online student participant.

Table 20

Main Reasons Students Enroll Online (Q1)

Q1. What are some of the main reasons higher educational students enroll in online courses instead of traditional on-campus courses?

Can attend classes from home	9.9%
Self-paced management of time	5.5%
Convenient/Flexible	9.9%
Can maintain job and family responsibilities	9.9%
Opportunity to earn a degree	3.3%
Smaller Student/Instructor ratio	1.1%
Self-paced management of time	5.5%
Convenient/Flexible	9.9%
Can maintain job and family responsibilities	9.9%
Opportunity to earn a degree	3.3%
Smaller Student/Instructor ratio	1.1%

Note. Students learning online (n = 11)

Table 21

Learning Style Most Compatible (Q2)

Q2. What specific preferred learning style is most compatible in an online learning environment? Why?

Visual Learning Style	4.4%
Aural Learning Style	1.1%
Read/write Learning Style	5.5%
Kinesthetic Learning Style	1.1%
Multimodal (includes all) learning styles	3.3%

Note. Students learning online (n = 11)

One student indicated that online courses required students to read continually throughout the course. A second student stated that she “spends time printing out her course materials to highlight important points and make notes in an effort to fully comprehend the material” (personal communication, June 25, 2014).

Table 22

Beneficial in Assuring Successful Learning (Q3)

Q3. Which one of the preferred learning styles will be beneficial in assuring adult learners have a successful online learning outcome?

Visual Learning Style	4.4%
Aural Learning Style	0.0%
Read/write Learning Style	5.5%
Kinesthetic Learning Style	1.1%
Multimodal (includes all) Learning Styles	1.1%

Note. Students learning online (n = 11)

One student stated, “reading is a necessity online; since the coursework requires reading, the books for the course should be read and any research information must be read. You cannot be successful without reading the material” (personal communication, July 16, 2014). A second student said that she used both the reading/writing learning

style and the visual learning style to complete her coursework because learning online requires visual cues, reading through the coursework, and writing the assignments. A third student admitted that reading is a part of the online process since reading is done to comprehend the coursework and writing to complete the assignments. She also indicated that reading with comprehension could ensure the student had a successful online outcome. A fourth student confessed that using all of his learning styles visual, aural, read/write, and kinesthetic (a multimodal learning style) could enhance critical thinking in which the various learning styles could adapt and change as successful learning takes place.

Table 23

Online Perseverance and Enthusiasm (Q4)

Q4. Which one of the preferred learning styles will affect an online student's perseverance and enthusiasm to continually learn in an online higher educational environment? Why?

Visual Learning Style	2.2%
Aural Learning Style	0.0%
Read/write Learning Style	4.4%
Kinesthetic Learning Style	5.5%
Multimodal (includes all) Learning Styles	0.0%

Note. Students learning online (n = 11)

One student conveyed that a visual learning style would affect the student's perseverance and enthusiasm to continue learning if visuals such as charts, graphs, photos, and videos were introduced into the online environment. Online learning could get boring without visual aids. A second student was adamant about online instructors enhancing lessons for the kinesthetic learning style since there was not enough interaction

to hold the attention of this particular learner's learning style. A third student said the kinesthetic learner suffered because there was no movement while sitting in front of a computer completing assignments. She further said that the read/write learning style was the dominant learning style used while learning online. However, if the coursework was presented in a more energetic way, this might help to accommodate the kinesthetic learner. A fourth student thought that it was important for a student to be engaged in online assignments, which is key to achieving success. Thereby, the kinesthetic learning style was the learning style that ensured a student would become motivated to connect to assignments by using all senses. The student was motivated by his or her ability to assume responsibility for learning.

Table 24

Capacity to Succeed (Q5)

Q5. How have technological advances in online learning affected a student's capacity to succeed in an online degree program?

Increased capacity to succeed	9.9%
Student capacity not affected	2.2%

Note. Students learning online (n = 11)

One student stated, "technological advances have enhanced a student's ability to complete assignments and research projects because a student now has access to various informational websites" (personal communication, June 29, 2014). A second student no longer had to go to a library to check out books when a virtual university library could be accessed in the comfort of home. This also applied to walk-in bookstores, since everything was online and accessible from home. A third student indicated that instructors also had access to enhanced instructional tools, which could aid in meeting the

needs of all of the learning styles of students. It was because of the enhancements to technology that online students could have access to their educational needs. A fourth student added that even with enhanced technology, some universities had not recognized that there were adult students who were not familiar with basic level computer skills at the onset of their online program. These students were blindly going into online environments not having the ability to function in the online environment.

Table 25

Tutorial to Adequately Prepare Students (Q6)

Q6. What could be done to adequately prepare students to use online course-related resources and technologies? Should a preliminary tutorial be offered to new students learning online?

Tutorial program	9.9%
Tutorial program not required	1.1%

Note. Students learning online (n = 11)

One student suggested that a mandatory orientation program be required for all new students registering for online courses. A second student indicated that her university offered an orientation program prior to beginning her online program. She was able to familiarize herself with many of the online processes before her online courses began. The pre-training online class prepared her for possible issues that sometimes arose during the course of learning online. She was able to focus more on the coursework instead of the unknown online learning processes. A third student said it would assist students with becoming familiar with working alone in front of a computer and gaining knowledge of the navigational processes, as well as helping alleviate student frustration associated with a student not knowing what to expect online. A fourth student

agreed that an orientation program would be very helpful since it would introduce the procedures of online learning. A fifth student stated that by seeing the online processes demonstrated, she would feel more confident when using online tools. A sixth student admitted that an orientation program or tutorial would give a student an immediate level of computer knowledge. A seventh student remarked that a student should not feel alone while learning online, therefore, advising the student at a tutorial that there is a community of online learners who could help build confidence in the learner and help the online learner build relationships during the course of their study. Finally, the eighth student stated that there should only be a preliminary tutorial if the student requested and required training.

Table 26

Align Preferred Learning Style (Q7)

Q7. How can the online learning environment be improved to align with a student's preferred learning style?	
By utilizing all learning styles	7.7%
By utilizing an interactive pedagogical format	2.2%
By students' being aware of their learning styles	1.1%

Note. Students learning online (n = 11)

One student emphasized that if an online environment were revised in the future, it should include the multimodal learning style because it would support students with their individual learning styles. A second student participant stated, "a visually stimulating interactive environment will align with most learning styles" (personal communication, July 7, 2014). A third student believed that most students give up on learning online because they might have one particular learning style. She indicated that it would be helpful if universities would create a program that encompassed each of the

styles of learning. A fourth student indicated that perhaps universities could offer a test to discover each student's learning style and inform them of their style of learning to reinforce students aligning with an interactive online environment.

Table 27

Influence on Learning Style (Q8)

Q8. What influence or relationship does online higher education have on an adult's ideal learning style?	
Positive influences	Computer/software savvy Dedicated learner Self-directed/independent learner Students' learning style changes to adapt to an online setting Confidence gained from knowledge of learning style
Negative influences	Cannot grasp online setting Not computer savvy Online setting is not appealing Facilitator is not available for questions

Note. Students learning online (n = 11)

One student admitted that a student's ideal learning style might not affect learning online if the student had the ability to adapt to the online learning environment and the facilitator's teaching style. A second student stated:

online learning has to be appealing to a student's learning style in order for them to succeed. A third student participant indicated that an adult's ideal learning style can be greatly impacted if the individual cannot grasp the course information which may cause the student to become discouraged and quit.

A fourth student saw many positive changes over the last five years, which have impacted her ability to adapt to the online environment, as the assignments have become more aligned with her way of learning.

Table 28.

Impact on Learners Performance (Q9)

Q9. What impact or effect does learning styles have on the adult learner's performance in an online highly technical formatted educational setting?

Students may be affected by the way coursework is presented*
 Can be challenging based on the student's learning style
 Students aware of their learning styles are in control of their success
 Facilitator must gain and hold the attention of learners by engaging learning styles
 When students learn independently online they can adapt to become self-sufficient
 Students familiar with a traditional teacher may not adapt to an online facilitator

Note. Students learning online (n = 11)

*either negatively or positively

One student acknowledged that an online student must become self-sufficient in an online learning environment since he or she must independently complete coursework by accessing the course book and from researching various Internet resources and sometimes the instructor might not be readily available to answer questions. A second student admitted that learning styles have a significant impact on online learners. She believed that a kinesthetic and aural learner might have a more difficult time trying to understand the content of the course, since, in an online setting, there are few hands-on activities and few opportunities to speak with the instructor. A third student expressed that it was dependent on a student's learning style; one might be able to incorporate one's particular learning style to an online environment. A fourth student stated:

greatly impacted because if the course material is not structured in a particular way, I get bored with it and I'm more likely to skim through material enough to pass the course instead of ingesting the material. When the information is structured "correctly" with the student in mind, those are courses I tend to excel in. (personal communication, June 21, 2014)

A fifth student indicated that if the online facilitator had designed his or her lessons so that she or he was teaching to “all” students, then the students’ performance would be greatly impacted.

Table 29.

Orientation Program (Q10)

Q10. How would an orientation program explaining online learning processes, implemented by an online university, benefit a student during the initial enrollment in an online learning program? Should this type of training be offered at all online universities? Why?

Implement Orientation Program	9.9%
Do not implement Orientation Program	1.1%

One student stated:

an online orientation program would greatly benefit a new student attending an online university. This program would make the student aware of deficiencies like a need to become more familiar with technology, or if they have the correct type of technology that would accommodate online learning. This kind of information would be beneficial to a new student. (personal communication, June 25, 2014)

A second student said an orientation program would benefit students greatly allowing the student to get a glimpse of the online coursework and environment. Learning how to navigate through the course would benefit the student also. A third student indicated that it would allow a new online student to determine if online learning was going to work for him or her. A fourth student reported that online orientation programs would benefit both the student and university since it would allow the student to become more relaxed while learning online. A fifth student participant stated:

honestly our entire lives have been spent in a physical classroom with an actual teacher pounding information down our throats. This teacher can see our

strengths and weaknesses, which would allow him or her to adjust their style of teaching to better assist the students. But online the teacher is virtual and the burden to teach and learn is on the student. There should be a program implemented that prepares students for this alternative way of learning. (personal communication, June 21, 2014)

A sixth student explained that an orientation program would eliminate students stumbling throughout the course. This kind of program should be enforced at all online universities.

Mastery of this type of training would eliminate a student's frustration and allow the student to focus more on the coursework.

A seventh student stated:

this type of program will help explain the online processes to new students. Students can learn how to access their learning environment, tune-up computer skills, communicate with online peers and the facilitator, and learn if needed how to develop documents, files, and media presentations. This program will actually help increase a new student's confidence so that he or she can be successful in an online learning environment. (personal communication, June 24, 2014)

An eighth student stated:

students may have a much skewed view of what an online learning experience encompasses. A required orientation program will provide a comprehensive overview of expectations and processes of the university's online program. Yes, for the reasons outlined, and because the program would decrease attrition rates all universities should offer mandatory orientations. This should also be possibly extended to traditional universities who offer online courses. (personal communication, June 21, 2014)

The ninth final student suggested that an orientation program should be available to students who requested it.

Table 30

Recommend Online Learning (Q11)

Q11. Would adult students recommend an online learning program in an educational university to a friend or family member? Why or why not?

Yes 7.7%	No 2.2%	Based on contingencies 4.4%
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One student stated:

before recommending a friend or family member I would first consider their learning abilities and life situation because I would not want to set them up for failure. I would be honest about online programs. Most likely, I would recommend them to online learning but I would consider universities offering an orientation program. (personal communication, July 16, 2014)

A second student stated that she would recommend online learning to a friend or family member, especially if the person worked and had a busy life with no time to attend a traditional university. A third student stated, “no, because she is not aware of any online universities with user friendly online programs and most universities have not considered student’s learning styles or changing their curriculum to accommodate the diverse learning styles of students” (personal communication, June 21, 2014). A fourth student said she would definitely recommend online higher education to a family member or friend because of its convenience, flexibility, and self-paced learning. A fifth student stated, “yes, I would recommend online learning to my family and friends because it does not interfere with a student’s daily schedule. Online programs are doable if the student is organized, determined, self-disciplined, and self-motivated” (personal communication, June 29, 2014). A sixth student indicated having experienced online learning as well as traditional learning, she would recommend higher education online learning to students who were self-starters as well as the experienced learner. She recommended that younger learners attend the traditional classrooms due to the more intimate classroom environment with face-to-face instructors. A seventh student participant said that some people might have a difficult time with the flexibility of online coursework; therefore, if a family member or friend were not motivated, she would not recommend online learning to that person.

The following is a summary of the findings as indicated by online student participants attending various universities responding to the Specially Designed Open-ended Questionnaire, where some of the answers were previously uncovered in studies conducted by professional examiners. Question 1 illustrates some of the main reasons students were returning to universities offering online programs. As presented and concluded in the study, online programs were convenient since courses were attended from home. As indicated by participants, another reason for attending online universities is that online programs were flexible. For example, students could maintain their full-time jobs, spend time with family, and enjoy recreational activities all while attending courses online. Question 2 showed students recommended the read/write and visual learning styles as the most compatible for preferred online learning. These findings were also noted by Drago and Wagner (2004, p. 1). Question 3 also indicated that participants endorsed both read/write and visual learning styles as favorable in assuring a successful outcome for online student learners.

However, when asked in Question 4 which learning style would be advantageous in assisting a student in remaining enthusiastic about online learning and persevering through the program, participants supported the kinesthetic learning style as the main influential style of learning and selected the read/write learning style as the second choice. Question 5 asked if the advances in technology had affected a student's ability to succeed in an online program and the majority of the 11 (9.9%) student participants answered, yes. In Question 6, the student participants were asked what could be done to adequately prepare online students to begin utilizing course-related resources and technologies. The participants agreed that a tutorial could be offered to familiarize

students with the advantages of using a university's resources and technologies. In Question 7, the participating students indicated that by utilizing all of the learning styles, an online environment could be aligned with a student's preferred learning styles. In Question 8, student participants specified that higher educational online learning could have both positive and negative influences on a student's ideal learning style. Some of the positive influences included a student being technologically confident, self-directed, independent, and dedicated with internal locus of control. Additionally, a student who was aware of his or her learning style and preference could experience inner strength and achieve success, thereby giving a student the ability to change his or her learning style to adapt to the online environment. The negative influences online learning had on an online student's ideal learning style included little or no knowledge about technology, which would make the online environment less appealing, possibly diminishing a student's understanding of the online concept. Finally, the last negative influence necessitated not having immediate access to the online facilitator to answer concerns.

In Question 9, student participants realized that there could be many explanations about why learning styles impact an online student's performance. First, a student familiar with the traditional way of learning in a classroom might not be able to adapt to an online facilitator's teaching style that allows students to learn independently. Next, the student's learning style could be very impactful on a student's performance when the facilitator had the ability to engage a student's learning styles, thereby controlling the learning of their online students by presenting coursework in a positive manner, which if not presented constructively, could be perceived negatively. Participants reiterated that when learning styles were unknown to a student, learning could become challenging.

However, a student's success could be gained when a student became aware of his or her learning style. As a consequence of knowing learning styles, the online student learner could become an independent self-sufficient learner in control of his or her success. In Question 10, student participants significantly agreed (9.9%) that an orientation program would definitely benefit students new to online learning, providing information and a pre-online experience. In Question 11, most students agreed (7.7%) that they would recommend an online program to their family and friends. Only 2.2% of the students said they would not recommend online learning and 4.4% based their decisions on minor contingencies such as ensuring a student's learning style was compatible with online learning before agreeing to recommend a particular family member or friend.

The third instrument, the VARK Learning Styles Survey, with 16 questions, was chosen to acquire additional themes that encompassed online students' learning styles. Thereby permission was granted from the creator, Neil Fleming, (Christchurch, New Zealand and Copyright © Version 7.3, 2001-2014), to use VARK for this study. Student participants from various online universities and Concordia University Chicago took part in the VARK Learning Styles Survey. The VARK Learning Style Survey was accessed on a private website owned by Fleming. The actual participants responding to the VARK Learning Style Survey totaled 20; 7 responses were from students attending Concordia University Chicago and the remaining 13 responses from students attending other various universities.

The VARK Learning Styles Survey was the last instrument used to uncover the learning styles of student participants attending Concordia University and the other various universities. The VARK Learning Styles Survey was designed by Fleming to

provide students with a precise description of their instructional learning style preferences (Fleming, 2009). Fleming (2009) reported, “people use the four means of communicating, Visual, Aural, Read/write and Kinesthetic (VARK) modes when taking in or giving out information. Some people have no strong preferences for any one communication modes these people are multimodal in their preferences” (p. ii).

There were 20 student participants who accessed and completed the VARK Learning Style Survey on Fleming’s privately owned website. The student participants’ responses were analyzed by the creator of VARK Learning Styles (Neil Fleming © 2001-2014). Once the analysis was completed, the results of the VARK Learning Styles Survey were retrieved from the private website and the remaining data were immediately deleted. The examiner indicated results showed that of the possible 31 students attending Concordia University Chicago enrolled in the organizational leadership program for the 2014, summer session, 7 students completed the VARK survey and out of the fifteen probable student participants attending other various universities, 13 student participants responded to the VARK Learning Styles Survey. Therefore, 20 solicited randomly selected students participated in this study. The distribution of learning style preference modes for the 20 student participants is shown in figures 1 through 6.

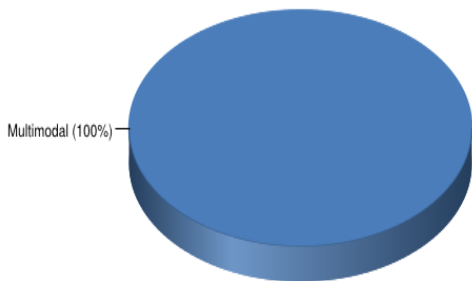


Figure 1. Summary of VARK learning preferences for Concordia University participants (by © VARK LEARN Limited 2014)

Figures 1 and 2 reveal research findings that show 100% of the students participating in this research project learning online at Concordia University Chicago had multimodal learning style modes.

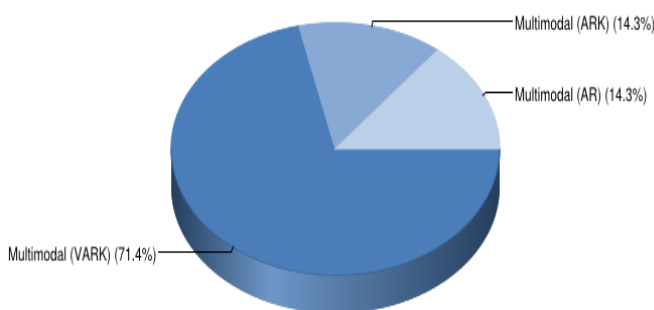


Figure 2. Details of VARK preferences for Concordia University participants (by © VARK LEARN Limited 2014)

Figures 2 and 3 show in detail the exact student participant ratio for multimodal learning styles. Five (71.4%) of the participants had all four learning styles preferences, visual, aural, read-write, and kinesthetic. One student had a ratio of 14.3% of the multimodal learning style, which included aural, read/write, and kinesthetic learning style preferences. While another student had a ratio of 14.3% of the multimodal learning style that embraced two of the learning styles, aural and read/write learning style preferences.

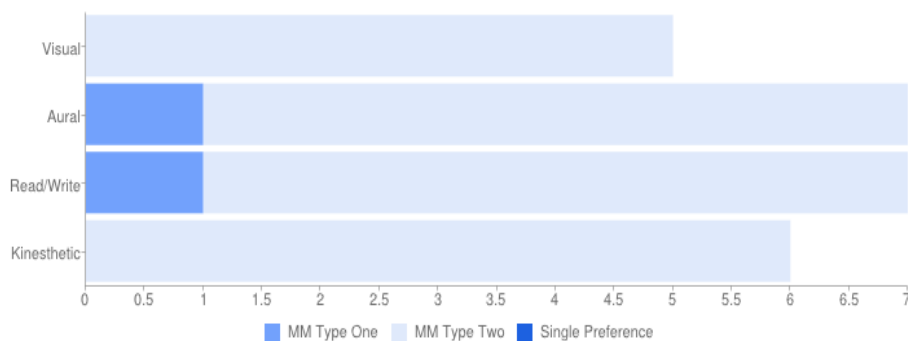


Figure 3. Concordia University Students Learning Preferences (by © VARK LEARN Limited 2014)

As shown in figures 1, 2, and 3, multimodal is the dominant learning preference for the online students attending Concordia University Chicago. The results of this research revealed that five of the online student participants were predisposed to the multimodal learning style, which is a combination of all four of the learning style preferences, VARK. While the other two students also showed multimodal learning styles, one student's learning preference indicated aural, read-write, and kinesthetic; the remaining student favored two learning styles, aural and kinesthetic. Fleming originally created the VARK learning style questionnaire to include only four learning styles: visual, aural, read-write, and kinesthetic. Multimodal is a fifth learning style category that was later included by Fleming for students who had no strong learning style preference for any of the learning style modes. The learning style modes were equally distributed in the multimodal learning style. This kind of learning is multimodal.

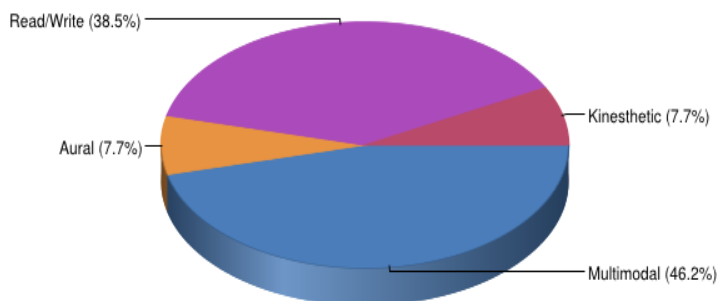


Figure 4. Summary of other student participants studying online at various universities (by © VARK LEARN Limited 2014)

Figure 4 shows that 42.6% of the student participants in the study attending other online universities were also predisposed to the multimodal learning styles, as further summary shows in Figure 5. Fleming (2009) stated, “teachers and students benefit from knowing their individualized ways of learning, even reflecting on their learning strategies (metacognition) is a useful technique for improved understanding in any discipline” (p. ii).

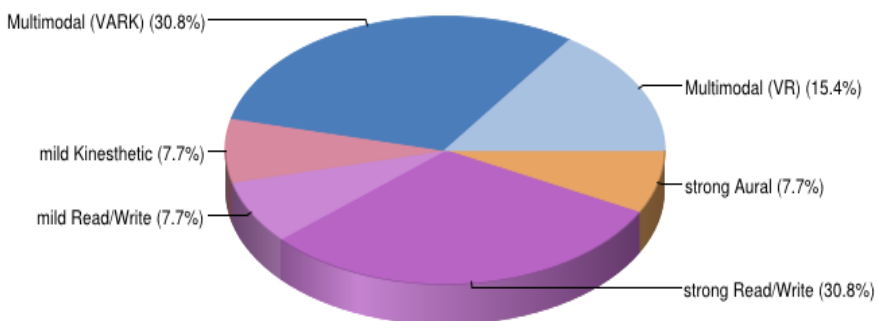


Figure 5. Details of VARK learning styles for students studying online at other online universities by (© VARK LEARN Limited 2014)

In Figure 5, the multimodal (VARK) and strong read/write learning styles are equally distributed at 30.8%; the multimodal learning style that includes two of the learning styles, visual and read/write equaled 15.4%, while the strong aural, mild read/write, and mild kinesthetic learning styles were each distributed evenly at 7.7%.

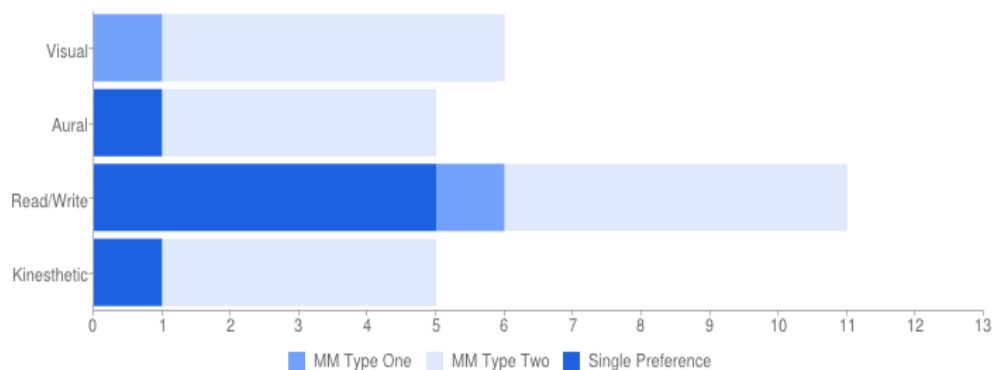


Figure 6. Learning preferences of students attending other universities (by © VARK LEARN Limited 2014)

As shown in figures 3, 4, and 5; the 13 students attending other various online universities showed fluctuating learning style results. Four student participants were inclined to have a multimodal learning style that included visual, aural, read-write, and kinesthetic learning preferences. Two other students also had a multimodal learning style that included two learning styles, visual and read-write, which indicated these students favored only two of the learning styles. One student showed a preference for the mild kinesthetic learning style, while another student was disposed to a strong aural learning style. Still another student was influenced by a mild read-write learning style. Finally, the remaining four students were predisposed to a strong read-write learning style.

Summary

To conclude, all three of the instruments: (a) the Demographic and College Information Questionnaire, (b) Specially Designed Open-ended Questionnaire, and (c) VARK Learning Style Survey, were defended by this study in that the research added to the body of knowledge related to the impact of online higher education learning of a student's preferred learning style. The examiner expressed that the results of this study suggest that online learning could be very impactful on a student's learning style, both positive and negative, depending on the student's learning style. Positive as participants

indicated if a new student learning online was aware of his or her learning style and was able to adapt to the learning style of the facilitator or the online environment. In addition, as expressed by the student respondents, attending a preliminary tutorial and orientation program could also add to a student's contentment and success while learning online. The negative effects, as student participants depicted in the study, were if a new online student was unaware of his or her particular learning preference and had not attended a tutorial or an orientation program, this student might become frustrated and leave his or her online program due to some of the challenges encountered in the online environment. When participants were asked about a tutorial and orientation program, their responses showed that the majority of student participants agreed these kinds of programs were needed for new students attending online universities for the first time. This study also revealed that satisfied students were persistent in persevering to complete their online degree programs.

This research study was further supported in students' responses that indicated the kinesthetic, read/write, and visual learning styles were most prevalent in helping students to succeed in an online learning environment. The multimodal learning style was the fifth learning style implemented by Fleming (2009) who suggested, "about 55% to 70% of learners possess the multimodal learning style" (p. ii). The VARK study added vigor to the research project by illuminating the dominant learning styles of most online student participants who possessed multimodal and read/write while learning online in a higher education facility (Concordia University Chicago and other online universities). Also indicated by the student participant totals (seven Concordia University students and six students studying at other various online universities), the multimodal learning style, that

includes VARK, is shown to be the dominant learning style in this study, as indicated by Fleming, since 65% (n = 13) of the participants showed it was their learning style preference as online learners. Student participants described, during interviews utilizing the Specially Designed Questionnaire, that applying all learning styles while learning online could produce an independent and self-directed student, which would assist with a student's online learning success.

The Demographic and College Information Questionnaire was also used to strengthen this study in that the participants indicated that when students had a positive experience it would increase student achievement. It will also help to generate student referrals and student referrals assist with increasing the university's student population. In grouping with existing studies of online learning, this research project has provided invaluable information that could benefit future research by adding to the body of information of a student's success while studying online and how online higher education impacts a student's relevant learning style preferences.

CHAPTER FIVE

Summary

Motivation for this study began with an interest in the learning behaviors of online adult students in higher education online learning facilities. More specifically, there was a special interest in assisting new students enrolling in online learning for the first time, with becoming accustomed to learning in an entirely different environment and achieving contentment and success while utilizing his or her exclusive learning style.

This research project was also a personal goal of the examiner to support the improvement of an adult student's overall experience when enrolling in and attending a degree program in an online higher education environment. Due to technological advances, distance learning has evolved into online learning, which has become a lucrative educational business in which adults with the responsibility of family and jobs have discovered convenience and flexibility with higher education opportunities. However, students enjoying all the conveniences of learning at home or any location believed to be appropriate for studying online, have not found total satisfaction in the flexible amenities that online learning offers. This could be attributed to new students enrolling in online degree programs for convenience and flexibility without perception of what the online learning environment involves to succeed (Zacharis, 2010).

Students with years of traditional learning experience in a campus classroom might find the online learning environment, where learning is done independently, somewhat challenging without being predisposed to the proper online learning tools to succeed. This obstacle of students entering online programs and not being familiar with the online environment or prepared to learn in an online environment could cause some universities'

attrition rates to increase. Professionals conducting studies on the topic of online learning and student's learning styles indicated that universities were seeking ways to set the expectations of adult students who were unfamiliar with the online format (Gifford et al., 2006). Setting the expectations of students new to online learning could be done by clarifying the online learning processes with the initiation of an orientation or tutorial program prior to students attending online courses, which would be profitable to universities looking to increase online student populations and decrease attrition rates (Madrigal, 2009; Nichol, 2010; Park & Choi, 2009). Providing tools such as an orientation or tutorial program would assist new students with efficiently navigating the online environment and give students a better understanding of the online learning environment's operations. Equally important is that a student knows and understands his or her particular style of learning, which can stimulate a student's ability to become an independent, self-directed successful online learner (Bernier, 2009; Felder, 2010).

This examiner aspired to emphasize the importance of universities and students knowing new students' learning preferences prior to starting their online courses. In addition, essential to this study was the realization of implementing an orientation or tutorial program. A student aware of his or her learning style could aid with strengthening a student's momentum in persisting in an online program. When a student is cognizant of his or her learning style, the student could also become student-focused, an educational method where students can evolve into self-directed independent learners. Being student-focused involves, "interaction, reflection, analysis, and discussion which has been empirically linked to critical thinking, academic performance, and personal development" (Rabe-Hemp et al., 2009).

Furthermore, an orientation or tutorial could be instrumental in assisting a student new to online learning with navigating through an online environment and becoming more effective in completing online coursework, refreshing computer skills, as well as introducing students to the university's social networks. An orientation or tutorial program could make use of a plethora of educational tools that could be useful in improving the online learning experience for new students enrolling online for the first time. By implementing valuable programs, universities would not only help prepare students for the online learning environment but increase student satisfaction and at the same time decrease the university's attrition rates.

Conclusions

In preparing for this qualitative research project, several learning style models were examined: (a) Bloom's taxonomy with three learning areas: cognitive, affective, and psychomotor (Chapman, 2009), (b) Kolb's learning style inventory: accommodating (CE/AE), assimilating (AC/RO), converging (AC/AE), and diverging (CE/RO) (Chapman, 2013; Zacharis, 2010), (c) the VAK learning style model: visual, auditory, and kinesthetic (Chislett & Chapman, 2012), and (d) the VARK learning style survey (Fleming, 2001-2014): visual, aural, read/write, and kinesthetic, in an effort to find the most suitable learning style model to utilize in conducting this study. The VARK learning style survey was regarded most beneficial for this research project, since the validity of the test had been established in previous research projects observing students' learning styles in online learning programs (Drago & Wagner, 2004; Zapalska & Brozik, 2007).

Along with the VARK learning style survey, two other instruments were employed during this study, the Specially Designed Open-ended Questionnaire and the Demographic and College Information Questionnaire. The VARK learning style survey was analyzed by the creator of the survey, Neil Fleming, and the Demographic and College Information Questionnaire was analyzed by SurveyMonkey. After the VARK learning style survey and the Demographic and College Information Questionnaire were analyzed, no further analysis was required, since Fleming performed an analysis of the collected VARK survey data using software rendering pie charts and bar graphs of descriptive statistics showing frequencies of affiliated data. Similarly, SurveyMonkey provided an analysis of collected demographic and college informational data in which findings were represented utilizing charts that showed descriptive statistics of affiliated categorical frequencies. The final analyzed data were collected from each private website (i.e., Fleming and SurveyMonkey) and all remaining pertinent student participant information was deleted from the Web pages before permanently closing each website.

Analysis of the Specially Designed Open-ended Questionnaire was conducted by the examiner initially applying the thematic six-phase process. The examiner performed the thematic investigation process throughout the analysis of each research question in an effort to describe the research phenomenon. The thematic analysis procedure involved becoming familiar with the data by isolating and generating data codes, searching for themes by relating codes, identifying patterns and themes in the data and, finally, finding co-currencies within the themes by utilizing Atlas-ti. In an effort to generate and produce profound themes, patterns were uncovered among data groups, which became essential to the categorization of the phenomenon. The final analysis was conducted by manipulating

Atlas.ti, a software program exclusively designed for qualitative research, in which themes were further identified and outlined.

VARK Learning Style Survey

VARK learning style survey instrument results revealed several interesting outcomes concerning students' learning styles while learning in an online environment. Accordingly, of the 20 student participants, 13 were found to have multimodal learning style preferences with four participants displaying read/write learning preferences and the remaining three participants favoring various learning style preferences. The VARK survey was productive in illuminating multimodal as the most prevalent learning style used while learning online as shown by this study 65% (n = 13) of the sampled students had multimodal learning style preferences. Fleming (2009) admitted that previous surveys have revealed, "the fifth category, multimodal, was added to cater to the 55% to 70% of respondents who had multiple preferences" (p. ii). This suggested the multimodal learning style was the dominant learning preference (Fleming, 2009). The VARK survey also showed the second most frequently utilized learning style by student participants was the read/write learning preference, in which participants admitted during interviews that most students learning online spent long hours reading and writing to complete course assignments. As indicated while conducting this research project, the examiner's findings supported previous scholarly studies that showed students studying online could have more than one learning preference (Gilakjani, 2012).

Demographic and College Information Questionnaire Instrument

The Demographic and College Information Questionnaire instrument revealed not only demographic information but also college information about the student participants in which some of the information might benefit the professional community.

- Q1: Showed the student participants interviewed were currently enrolled in online degree programs or had completed their respective online degree programs.
- Q2: The participants were either pursuing a master's or doctorate degree or other educational goals once their respective degrees were completed.
- Q3: The current academic year showed that students were enrolled from the first year through to the fourth year and some students had completed their degrees.
- Q4: All participants were enrolled in 100% online courses at one time or another. The results identified 75% of the students were enrolled in 100% online degree programs while the other 25% had completed their respective online degree programs within the last five years and were involved with other professional studies indicating learning could be a lifetime endeavor.
- Q5: The ages of the participants ranged from 25 to 55+ suggesting mature adults attend online learning programs (Brown et al., 2013).
- Q6: Gender specifications showed that more females (62.5%) than males (37.5%) enrolled in online degree programs. Professional studies conducted about online studying also showed more females enrolled in online learning programs than males (Slick, 2008).
- Q7: Findings showed that 75% of the participants were proficient computer users and 25% adequate computer users. The study did not show any less than

adequate computer users. Online users should be proficient or expert computer users as indicated by scholars in previous research studies (Drennan et al., 2005; Rabe-Hemp, 2009; Stein et al., 2009). Therefore, a technological tutorial would greatly benefit the adequate and less than adequate computer user enrolling in online learning (Perreault et al., 2008).

- Q8: The ethnicities of the student participants are as follows: 56.25% African-American, 18.75% African-American, Hispanic, 12.50% Asian Pacific Islander, 6.25% Hispanic, 6.25% Native American, and 31.25% White. Again, the totals shown were only ascribed to this research project and the actual number of participants who completed questionnaires and are not a representation of any university's student population.
- Q9: Participants' (n = 16) familiarity with social networks indicated: (a) beginners 12.50% (n = 2), (b) intermediate 43.75% (n = 7), and (c) advanced 43.75% (n = 7). The universities' social networks could possibly be introduced during the orientation or tutorial programs to provide familiarity.
- Q10: The most popular social network sites included; Facebook, LinkedIn, and YouTube all at 75% (n = 12 for each category). The less favored social websites were: Twitter 43.75% (n = 7), blogs 18.75% (n = 3), and other unspecified sites 6.25% (n = 1).
- Q11: Human contributing resources used to choose a university included: (a) word of mouth referrals from family, friends, and school advisors, (b) Internet referrals, and (c) recommendations from colleges. Internet contributing resources

included: (a) the university's website, (b) Google, (c) US News online, and (d) World Report-Best Colleges online.

- Q12: Six participants indicated social networks influenced their decisions in choosing a university; while 10 participants reported that social networks did not influence their decision in choosing their respective universities.
- Q13: Some of the information participants considered in choosing online universities included: (a) cost, (b) available degree programs with a description of the courses, (c) extra-curricular activities, (d) location of the online university, (e) program overview listing an university's personal contact, (f) duration of the program, (g) university's acceptance criteria, (h) university's accreditation, (i) students' reviews of the university, (j) quality and standards of the university, (k) World Report-Best Colleges, and (l) word of mouth referrals from students and faculty.
- Q14: Approximately 68.75% (n = 11) of the participants did not use the university's Facebook page indicating that there was no interest, were not aware of the university's Facebook page, or did not know what Facebook was. While 31.25% (n = 5) used the university's Facebook page sometimes and a few students became aware of the university's Facebook page while taking the questionnaire.
- Q15: Approximately 18.75% (n = 3) of the participants used the university's blog; 68.75% (n = 11) of the participants did not blog, and 12.50% (n = 2) of the students said their university did not have a blog.

- Q16: The results showing how students felt about their university's social website indicated; 6.25% (n = 3) of the participants felt positive about the university's social website; 43.75% (n = 7) of the students had negative comments about their university's social website and (n = 6) 37.50% of participants had neutral comments about the university's website. Again, an initial tutorial showing the value of a university's social website would improve positive outcomes. Students would take advantage of websites when they found them to be informative and supportive.

Specially Designed Open-ended Questionnaire

The Specially Designed Open-ended Questionnaire instrument was applied and uncovered numerous variables while interviewing student participants. A chart (Table 3) that included an overview was provided to the participants describing each of the learning styles, (i.e., visual, aural, read/write, and kinesthetic) to be used as a reference along with the questions. Although multimodal was not included on the chart, the kinesthetic learning style was defined as a combined learning style that included all of the learning styles (visual, aural, read/write, and kinesthetic; Drago & Wagner, 2004). Student participants became aware of the multimodal learning style after completing the VARK survey. The responses to the open-ended questionnaire provided some enlightenment to the experiences of online learners. Listed are some of the primary commentaries by the student participants.

Responses to Q1. The main reasons the participants attended online universities were that classes could be attended from home, learning was self-paced, and the student had control over managing personal time. Participants also conveyed three principal

reasons for attending online colleges: (a) convenience and flexibility, (b) the ability of students to maintain full-time jobs and family responsibilities, and 3) students had the opportunity to earn a degree (Braun, 2008; Castle & McGuire, 2010; Drennan, 2005; Greenberg, 2009). The three reasons were reported by participants in this research study and noted consistently in prior research conducted by scholars on this topic.

Responses to Q2. Students described the read/write, visual, and multimodal (the three styles of learning equal multimodal since there are two or more learning styles utilized) as the most compatible learning styles to utilize in an online environment. Students also indicated the reading and writing learning style was a requirement since online learning consisted of both reading and writing to conduct research and complete assignments throughout the course of study. The visual learning style was required to navigate through the online environment, to reflect on assignments, and to properly organize assignments and the multimodal learning style was needed to adjust learning behavior to match the facilitator's style of teaching, various online tools, and course assignments within the online environment.

Responses to Q3 predicted two learning styles that would be influential in assuring the success of online learning, the visual and read/write learning styles (or multimodal, which occurred when there were two or more learning styles utilized) since visual cues were needed to interpret course assignments. Students noted the read/write learning style was required to complete the learning processes of online learning. Both the visual and reading learning styles were major factors in ensuring a successful outcome. Reflection was produced by utilizing visual cues and during the reading/writing process; thereby, critical thinking was a significant learning process.

Responses to Q4 supported the kinesthetic and read/write learning styles (or multimodal, which occurred when there were two or more learning styles utilized) as the learning preferences that would affect students' enthusiasm and perseverance to learn online. The read/write learning style was chosen for reasons indicated earlier in Q2 and Q3. Participants overwhelmingly chose the kinesthetic learning style, which indicated the kinesthetic preference should be incorporated into the online format so that online lessons were presented using a robust approach to teaching such as interactive learning to help engage and motivate the student. The students added that sitting in front of a computer reading and writing could become tedious without the use of an interactive motivation (Rabe-Hemp et al., 2009).

Responses to Q5 allowed participants to highlight how technical advances changed the whole spectrum of online learning by enhancing the way a student accesses learning, books, and research information to complete coursework. Thanks to technology, learning could be literally performed while sitting in front of a computer, with the click of a mouse!

Responses to Q6 indicated students ($n = 10$) altogether agreed that a tutorial would definitely benefit new students enrolling online. Declaring that an orientation or tutorial would assist with building relationships with colleagues and faculty since learning took place alone. This gave the student the opportunity to realize there were other online learners also studying alone. A tutorial or orientation program also would assist the student with understanding how to navigate through the online environment. One student, who had previously attended an online tutorial at her university, admitted it was a valuable experience, since she had the opportunity to concentrate solely on the

assignments, instead of being anxious about how to navigate through the online processes. By attending the tutorial, she was able to understand and appreciate the online processes.

Responses to Q7 revealed the sure way to align the online learning environment with a student's learning style was to integrate all of the learning styles together (or utilize the multimodal learning style) in the online format. Universities would also need to examine each new student enrolling online to discover the student's style of learning. Multimodal people make up the largest group of learners, 55% to 70% (Fleming, 2009).

Responses to Q8 showed both positive and negative influences on a student's preferred learning style while learning online in a higher education institution. The positive influences suggested a student's expertise with computers would expand, and as the student progresses from course to course, he or she would gain confidence. The student would also become a dedicated, independent, self-directed learner who would progressively change and adapt his or her learning style in adjusting to the online environment (Gilakjani, 2012) and the facilitator's teaching style. Negative influences could occur when a student believed he or she had proficient computer skills but overestimated his or her technical expertise (Mupinga et al., 2006; Perreault et al., 2008). A student could feel apprehensive, isolated, and completing coursework could be delayed if he or she was not proficient with the use of a computer. Thus, unwilling to seek professional help, the student would become disinterested with online learning due to this challenging experience that could be avoided once a student attended an orientation or tutorial program prior to learning online (Perreault et al., 2008). One participant believed another negative occurrence worth noting was the importance of a facilitator ensuring

that the telephone calls or emails from prospective online students did not go unanswered. Scholars have reported the feedback of a facilitator was considered more relevant to the student than the student's interactions with colleagues in the same course, since it is a significant part of the student's motivation and cognitive development (Daghan & Akkoyunlu, 2012; Rudestam & Schoenholtz-Read, 2010).

Responses to Q9. Students cited various situations indicating how students' learning styles could impact student performance. A student's learning style could impact his or her performance if he or she was not aware of his or her particular learning style. A student who is aware of his or her learning style becomes cognizant of his or her strengths and the ability to achieve online success (Gilakjani, 2012). This could be done by adapting to the online environment and teaching style of the facilitator. Facilitators must engage students' learning styles to ensure that learning takes place. A student admitted that even though learning styles have a direct effect on how the student learns and how coursework is presented, learning online independently could assist a student with becoming a self-sufficient, independent learner (Gulbahar & Alper, 2011).

Responses to Q10 indicated the majority of student participants' ($n = 10$) agreed that the implementation of an orientation or tutorial program would certainly benefit new students enrolling for the first time in an online program. Universities have a responsibility to their students to offer an orientation or tutorial for students attending online learning for the first time (McGlone, 2012).

Responses to Q11. Students ($n = 7$) asserted that they would recommend online learning to friends and family members. Other students ($n = 2$) indicated that they would not recommend online learning to friends or family members. The remaining students (n

= 4) based their decisions on contingencies concerning whether they would recommend family or friends to online learning, indicating that they would evaluate the proposed student's lifestyle to ensure an online university would be a good fit since they would not want a friend or family member to drop out. Universities that improve their services to students, by setting students' expectations and ensuring students are satisfied, will help to gain the recommendations of students who are indifferent and increase the student population.

Implications for Practice and Recommendations for Future Research

Although while conducting this research the examiner did not uncover any data about how students could change and adapt their learning styles to adjust to the online environment, prior research by professionals on the topic found that learning styles were changed during the process of learning online (Greenberg, 2009). This suggested further studies would be required to determine when changes to learning styles take place. It was not clear if the online student participants in this study had adapted and changed their learning preferences during the progression of their studies or if their learning preferences had never been changed during the growth of their learning. An approach to this kind of study might include a university capturing a student's learning style preference at the beginning of a scheduled course and then reexamining the student's learning preference at the end of the course or several courses to determine if the student's learning style preference had changed.

Also observed in this study was that none of the student participants (n = 11, open-ended questionnaire) actually had strong visual learning style preferences even though while interviewing the student participants they overwhelmingly noted (Q2. Most

compatible learning style in the online learning environment) that the visual learning style was the second most compatible learning style while learning online. Findings from this study conducted by the examiner revealed read/write was the major compatible learning style preference for students learning online. Again, this suggests additional research is required using a larger sample population, since prior studies have shown both read/write and visual learning style preferences as the dominant learning styles (Drago & Wagner, 2004; Moallem, 2008). Another subject not addressed in this study was how learning styles affect students' grades. Learning styles and grades should be compared to ensure learning styles produce successful outcomes. This will give some credence to how well learning styles assist students in succeeding online. Also not addressed in this study was the quality of service received from universities with online learning programs. This is actually a key element in producing satisfied online learners; therefore, additional research is needed in this area as well.

The limitation to this research project occurred when sampling the student population attending Concordia University Chicago. The sample was comprised of 31 students, which was lower than anticipated by the examiner due to the timing of the study, which was conducted during the 2014 summer session. During this time, there were 31 students available for the study. Planning was crucial since the spring or fall semesters could possibly bring about a higher sample population. Delimitations occurred as well during this study because of the design of the project that invited only student participants enrolled in the organizational leadership program. This also affected participant sample numbers. Another delimitation to this study involved students not checking their university emails to receive the emailed consent request to participate in

the study. Therefore, due to the limitation and delimitations during this study, the response rate from students attending Concordia University was considerably smaller than anticipated with seven actual responses to the VARK survey and demographic questionnaire presented for the study. Conversely, 15 students attending other various universities were solicited to participate in the specially designed open-ended questionnaire, VARK survey, and the demographic questionnaire. Thereby, of the 15 solicited students, 13 participants attending the other various universities participated in the VARK survey, 11 students participated in the specially designed open-ended questionnaire, and a total of nine students responded to the demographic questionnaire. Thus, there was also a delimitation involved with the number of participants completing all three instruments, since a total of actual participants responding to each instrument varied throughout.

Although the research data collected from the three instruments for this study portrayed a moderately small sample of participants ($n = 20$), the size of this prototype was considerably sufficient to address all three employed research instruments and concluding stages (Greenberg, 2009). By applying the three instruments to this study, truthfulness and cogency were complemented since the data collected illuminated online student participants' represented experiences while learning in an online setting (www.sage/pub., 2011; Yeasmin & Rahman, 2012). In summarizing, as technology advances and universities' online learning populations increase, colleges will need to determine ways to ensure their students are content and successful. In maintaining satisfied online students who have successfully achieved their goals, these outcomes

would certify new growth for universities' online populations while guaranteeing decreased attrition rates.

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APPENDICES

APPENDIX A**Demographic and College Information Questionnaire (Instrument #1)**

Please place an “X” on the answer that closely illustrates your response or give a brief descriptive answer.

1) Are you currently enrolled in a higher education advanced degree program?

Yes

No

2) What type of degree are you currently pursuing?

3) What academic year of your program are you currently in?

4) Are you in a program with classes that are 100% online?

Yes

No

5) Please choose the age group that comes closest to your age.

8-24

25-34

35-44

45-54

55+

6) Please identify your gender.

Male

Female

7) Which of the following do you identify as your computer skills?

Proficient

Adequate

Less than adequate

8) Please identify your race.

White

Hispanic

African-American

African-American, Hispanic

Hispanic

Asian Pacific Islander

Native American

Other

9) What is your experience with social networking sites?

Beginner

Intermediate

Advanced

10) Which social media sites do you use?

Facebook

LinkedIn

Twitter

YouTube

Blogs (reading or writing)

Other _____

- 11) What other sources of information besides social media did you use to research your current university?
- 12) What part did social media play in choosing your college and what was the importance of that social media information in your overall college choice?
- 13) What was the most helpful source of information to you when you were choosing a college?
- 14) To what extent are you aware of your university's Facebook page and do you utilize it?
- 15) Does your university have a blog and if so do you utilize it?
- 16) How do you feel about your colleges' social networking sites?

APPENDIX B

The VARK Survey (Version 7.2) (Instrument #2)

How Do I Learn Best?

Choose the answer that best explains your preference and circle the letter(s) next to it.

Please circle more than one if a single answer does not match your perception.

Leave blank any question that does not apply.

1. You are helping someone who wants to go to your airport, the center of town or railway station. You would:
 - a. go with her.
 - b. tell her the directions.
 - c. write down the directions.
 - d. draw, or show her a map, or give her a map.

2. You are not sure whether a word should be spelled “dependent” or “dependant.” You would:
 - a. see the words in your mind and choose by the way they look.
 - b. think about how each word sounds and choose one.
 - c. find it online or in a dictionary.

d. write both words down and choose one.

3. You are planning a vacation for a group. You want some feedback from them about the plan. You would:

a. describe some of the highlights they will experience.

b. use a map to show them the places.

c. give them a copy of the printed itinerary.

d. phone, text or email them.

4. You are going to cook something as a special treat. You would:

a. cook something you know without the need for instructions.

b. ask friends for suggestions.

c. look on the Internet or in some cookbooks for ideas from the pictures.

d. use a good recipe.

5. A group of tourists want to learn about the parks or wildlife reserves in your area. You would:

a. talk about, or arrange a talk for them about parks or wildlife reserves.

b. show them maps and internet pictures.

c. take them to a park or wildlife reserve and walk with them.

d. give them a book or pamphlets about the parks or wildlife reserves.

6. You are about to purchase a digital camera or mobile phone. Other than price, what would most influence your decision?

- a. Trying or testing it.
- b. Reading the details or checking its features online.
- c. It is a modern design and looks good.
- d. The salesperson telling me about its features.

7. Remember a time when you learned how to do something new. Avoid choosing a physical skill (e.g., riding a bike). You learned best by:

- a. watching a demonstration.
- b. listening to somebody explaining it and asking questions.
- c. diagrams, maps, and charts—visual clues.
- d. written instructions (e.g., a manual or book).

8. You have a problem with your heart. You would prefer that the doctor:

- a. gave you a something to read to explain what was wrong.
- b. used a plastic model to show what was wrong.
- c. described what was wrong.
- d. showed you a diagram of what was wrong.

9. You want to learn a new program, skill, or game on a computer. You would:

- a. read the written instructions that came with the program.
- b. talk with people who know about the program.

- c. use the controls or keyboard.
- d. follow the diagrams in the book that came with it.

10. I like websites that have:

- a. things I can click on, shift or try.
- b. interesting design and visual features.
- c. interesting written descriptions, lists and explanations.
- d. audio channels where I can hear music, radio programs or interviews.

11. Other than price, what would most influence your decision to buy a new non-fiction book?

- a. The way it looks is appealing.
- b. Quickly reading parts of it.
- c. A friend talks about it and recommends it.
- d. It has real-life stories, experiences, and examples.

12. You are using a book, CD, or website to learn how to take photos with your new digital camera. You would like to have:

- a. a chance to ask questions and talk about the camera and its features.
- b. clear written instructions with lists and bullet points about what to do.
- c. diagrams showing the camera and what each part does.
- d. many examples of good and poor photos and how to improve them.

13. Do you prefer a teacher or a presenter who uses:

- a. demonstrations, models or practical sessions.
- b. question and answer, talk, group discussion, or guest speakers.
- c. handouts, books, or readings.
- d. diagrams, charts or graphs.

14. You have finished a competition or test and would like some feedback. You would like to have feedback:

- a. using examples from what you have done.
- b. using a written description of your results.
- c. from somebody who talks it through with you.
- d. using graphs showing what you had achieved.

15. You are going to choose food at a restaurant or cafe. You would:

- a. choose something that you have had there before.
- b. listen to the waiter or ask friends to recommend choices.
- c. choose from the descriptions in the menu.
- d. look at what others are eating or look at pictures of each dish

16. You have to make an important speech at a conference or special occasion. You would:

- a. make diagrams or get graphs to help explain things.
- b. write a few key words and practice saying your speech over and over.

- c. write out your speech and learn from reading it over several times.
- d. gather many examples and stories to make the talk real and practical.

APPENDIX C

Neil Fleming Copyright for VARK Learning Style Survey

Hide Details

From

- Fleming Neil

To

- stephanie_banksmassey@yahoo.com

Dear Stephanie

Thank you for seeking permission to use VARK. We rely on the honesty of people to act in a professional way when using our copyright and trademarked materials. VARK is free for use by teachers and students in universities, colleges, and high schools. You may not place VARK copyright materials on any website or intranet or in resources made for sale.

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For Education Users

We can gather your data for you. Our VARK Subscription Service does not need any installation on your system. We capture the VARK scores for your research, your classes or for your whole institution (institutional subscription). You get to manage the site and to download the analyzed results. The subscription service is demonstrated on our website. The cost for six months is approximately \$US95 (individual teacher or student researcher) or \$US520 for a whole institution subscription.

Also available is a “pinged” profile that can be accessed after completing the VARK questionnaire. You or your students will immediately receive, on your browser a PDF file customized to your VARK scores with study strategies as well (help sheets).

If you are using VARK for research, please note that we have two scoring systems and one is designed specifically for research. The information about each is at these web addresses:

<http://www.vark-learn.com/english/page.asp?p=whatsnew>

www.vark-learn.com/english/page.asp?p=advice

Book Downloads

You may find the VARK books helpful. They are all available as downloads and recently reduced in price. The downloads are sent immediately payment is made so don't shut down your computer until the book arrives as a PDF on your browser.

Best wishes for your work.

Neil

Neil D Fleming

Designer of the VARK Questionnaire

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APPENDIX D

Specially Designed Open-ended Research Questionnaire and a Description of the VARK Learning Styles (Instrument #3)

- What are some of the main reasons higher education students enroll in online courses instead of traditional on-campus courses?
- What specific preferred learning style (refer to the VARK learning styles on page 3) is most compatible in an online learning environment? Why?
- Which one of the preferred learning styles (refer to the VARK learning styles on page 3) will be beneficial in assuring adult learners have a successful online learning outcome?
- Which one of the preferred learning styles (refer to the VARK learning styles on page 3) will affect an online student's perseverance and enthusiasm to continually learn in an online higher education environment? Why?
- How have technological advances in online learning affected a student's capacity to succeed in an online degree program?
- What can be done to adequately prepare students to use online course related resources and technologies? Should a preliminary technological tutorial be offered to new students learning online?

- How can the online learning environment be improved to align with a student's preferred learning style (refer to the VARK learning styles on page 3)?
- What influence or relationship does online higher education have on an adult's ideal learning style (refer to the VARK learning styles on page 3)?
- What impact does a learning style (refer to the VARK learning styles on page 3) have on the adult learner's performance in an online highly technical formatted educational setting?
- How would an orientation program explaining online learning processes, implemented by an online university, benefit a student during the initial enrollment in an online learning program? Should this type of training be offered at all online universities? Why?
- Would adult students recommend an online learning program in a higher education university to a friend or family member? Why or Why not?

VARK Learning Styles (Instrument #3)

Visual Study Strategies	Aural Study Strategies	Read/Write Study Strategies	Kinesthetic Study Strategies
uses pictures, posters, and slides	discusses lessons with colleagues and instructors	uses lists, headings, notes (often verbatim)	uses all senses; sight, touch, taste, smell, and hearing
uses flow charts, demonstrations	may use a tape recorder	uses dictionaries, glossaries	learns from field trips, field tours
uses underlining, highlighters with different colors	remembers the interesting lessons, examples	uses definitions, handouts, library	learns by application by hands on approach
uses books with diagrams and pictures	notes may be poorly transcribed since listening is a preference	uses the Internet, practices using multiple choice questions	learns from trial and error and from lectures with real-life examples
uses graphs, draws things, uses lists to organize thoughts	reads summarized notes aloud	uses repetition in writing words	may collect different kinds of rocks, plants, shells, etc.
uses symbols, is usually distracted by movement but noise does not disturb them	explains notes to others that like to listen	reads notes over and over again, takes notes when reading difficult material	learns from topics that are concrete and relevant
writes down exam answers as a method of study, likes seeing lessons visually	spends time recalling ideas	rewrites ideas and principles into words easy to understand	uses pictures and photographs that illustrate ideas
recalls by using pictures, can normally remember faces not names	speaks lessons aloud or inside head	arranges words into hierarchies and points	high energy, likes touching, moving, interacting with their environment
may also practice turning visuals into words	actually learns by listening	writes information into lists like; a, b, c, d, or 1, 2, 3, 4	Likes to watch and listen, but prefers not to be in a classroom setting
Can learn through descriptions	prefers working out problems by talking easily distracted by noise		recalls experiments or field trips learns best by doing, using hands on, movement

(Drago & Wagner, 2004; Fleming, 2011)

Overview:

Visual learners view the whole picture, being swayed by the appearance of something, possibly likes to draw.

Aural learners prefer to have the lesson explained to them, since words written on paper are not perceived as valuable as those heard.

Read/write learners emphasize using words and lists in which the belief is that words have meaning so writing it down on paper is important.

Kinesthetic learners must actually do things or experience something to understand better the exam or lesson.

Participant 8	Private office	Female	Graduate online student	Flexibility while using a laptop and connecting a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Read/write to learn, most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Read/write to learn, most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Students who are successful in organizations through online work are often more successful. The ability to read/write to learn will probably be more successful therefore performance and education will follow.	With technological advances most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	A preliminary technological tool would be a tablet that is portable and can be used anywhere. It would be a tablet that is portable and can be used anywhere. It would be a tablet that is portable and can be used anywhere.	This is a very difficult question because online learning is not a new concept. It has been around for a long time. The only difference is that now it is more accessible and easier to use. The only difference is that now it is more accessible and easier to use.	Early on the main issue was being able to read/write to learn. The only difference is that now it is more accessible and easier to use. The only difference is that now it is more accessible and easier to use.	Students who are successful in organizations through online work are often more successful. The ability to read/write to learn will probably be more successful therefore performance and education will follow.	This would depend upon the person's learning style and how well they understand the program. It is generally assumed that the person's learning style will be a good indicator of their success. It is generally assumed that the person's learning style will be a good indicator of their success.
Participant 9	Telephone	Female	Graduate online student	Flexibility and convenience. Most of the ability to learn by reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Read/write to learn, most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Read/write to learn, most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Students who are successful in organizations through online work are often more successful. The ability to read/write to learn will probably be more successful therefore performance and education will follow.	With technological advances most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	A preliminary technological tool would be a tablet that is portable and can be used anywhere. It would be a tablet that is portable and can be used anywhere. It would be a tablet that is portable and can be used anywhere.	This is a very difficult question because online learning is not a new concept. It has been around for a long time. The only difference is that now it is more accessible and easier to use. The only difference is that now it is more accessible and easier to use.	Early on the main issue was being able to read/write to learn. The only difference is that now it is more accessible and easier to use. The only difference is that now it is more accessible and easier to use.	Students who are successful in organizations through online work are often more successful. The ability to read/write to learn will probably be more successful therefore performance and education will follow.	This would depend upon the person's learning style and how well they understand the program. It is generally assumed that the person's learning style will be a good indicator of their success. It is generally assumed that the person's learning style will be a good indicator of their success.
Participant 10	Direct email	Female	Graduate online student	Flexibility and convenience. Most of the ability to learn by reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Read/write to learn, most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Read/write to learn, most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	Students who are successful in organizations through online work are often more successful. The ability to read/write to learn will probably be more successful therefore performance and education will follow.	With technological advances most online courses rely heavily on reading and writing. I also use a second monitor to help with reading and writing. I also use a second monitor to help with reading and writing.	A preliminary technological tool would be a tablet that is portable and can be used anywhere. It would be a tablet that is portable and can be used anywhere. It would be a tablet that is portable and can be used anywhere.	This is a very difficult question because online learning is not a new concept. It has been around for a long time. The only difference is that now it is more accessible and easier to use. The only difference is that now it is more accessible and easier to use.	Early on the main issue was being able to read/write to learn. The only difference is that now it is more accessible and easier to use. The only difference is that now it is more accessible and easier to use.	Students who are successful in organizations through online work are often more successful. The ability to read/write to learn will probably be more successful therefore performance and education will follow.	This would depend upon the person's learning style and how well they understand the program. It is generally assumed that the person's learning style will be a good indicator of their success. It is generally assumed that the person's learning style will be a good indicator of their success.

APPENDIX E

Specially Designed Open-ended Questionnaire Interview Guides (continued)

Participant ID	F004	F004	Endline online student	Identified difficulty for the comprehension of text	Does it would be the long-term or short-term work requires both reading and writing skill? If not, what reading or writing skill of the online writing did you use most often in this setting?	Agree, I believe the email with training tips will be most beneficial. I don't appear to use most other in this setting.	Probably both the readability and the knowledge training tips. Students need to be physically attracted to the content and the knowledge training tips can assist with this type of learning.	Technological advances have provided the opportunity to create better technology in general and to create better learning environments.	Yes, technical would be great for me as well.	A stimulating interactive learning environment would enhance a student's learning style.	Online learning can have great results, as long as a student completes their program. I found some classes very challenging.	Using all of the learning styles may be most effective in assisting students to become successful.	Learning comes out of a strong program. It should be a strong learning style and not with the rest of the class. The student should be able to ask questions about the online environment.	Yes, I would recommend online learning. I have experienced the benefits of online learning. It works for me!
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APPENDIX F**Demographic and College Information Questionnaire (SurveyMonkey) Guides**

Q1. Are you currently enrolled in an online higher educational advanced degree program?

Responses:

Participant #1: Yes

Participant #2: No

Participant #3: Yes

Participant #4: No

Participant #5: No

Participant #6: Yes

Participant #7: Yes

Participant #8: Yes

Participant #9: Yes

Participant #10: Yes

Participant #11: Yes

Participant #12: Yes

Participant # 13: Yes

Participant #14: Yes

Participant #15: No

Participant #16: Yes

Q2. What type of degree are you currently pursuing?

Responses:

Participant #1: Graduate Study degree in Human Resources

Participant #2: I have recently completed Governors State University's Online Teaching Program.

Participant #3: PhD Nursing

Participant #4: Recently completed a Master's Degree

Participant #5: Pediatric Dentistry

Participant #6: Masters in forensic psychology

Participant #7: Doctorate in Educational Psychology

Participant #8: Paralegal Certificate

Participant #9: Ed.D. in Org. Ldrship

Participant #10: Organizational Leadership

Participant #11: Leadership and Education

Participant #12: PhD - Organizational Leadership

Participant # 13: PhD Organizational Leadership

Participant #14: PhD in Organizational Leadership

Participant #15: I'm not enrolled in classes

Participant #16: Ed.D.

Q3. What academic year of your program are you currently in?

Responses:

Participant #1: My second year, last semester of the program

Participant #2: I have completed the program.

Participant #3: Year 3

Participant #4: I completed the program in March

Participant #5: Beginning 1st year

Participant #6: first year

Participant #7: First yr.

Participant #8: Last

Participant #9: 4

Participant #10: Currently writing my dissertation (year 4 of 5).

Participant #11: Second Year

Participant #12: 2nd

Participant # 13: 1st

Participant #14: 4th

Participant #15: I'm not enrolled in classes

Participant #16: Third

Q4. Are you in a program with classes that are 100% online?

Responses:

Participant #1: No

Participant #2: Yes

Participant #3: No

Participant #4: Yes

Participant #5: No

Participant #6: Yes

Participant #7: Yes

Participant #8: Yes

Participant #9: Yes

Participant #10: Yes

Participant #11: Yes

Participant #12: Yes

Participant # 13: Yes

Participant #14: Yes

Participant #15: No

Participant #16: Yes

Q5. Please choose the age group that comes closest to your age.

Responses:

Participant #1: 25-34

Participant #2: 55+

Participant #3: 35-44

Participant #4: 25-34

Participant #5: 25-34

Participant #6: 35-44

Participant #7: 55+

Participant #8: 55+

Participant #9: 44-54

Participant #10: 35-44

Participant #11: 35-44

Participant #12: 35-44

Participant # 13: 35-44

Participant #14: 55+

Participant #15: 25-34

Participant #16: 44-54

Q6. Please identify your gender.

Responses:

Participant #1: Female

Participant #2: Female

Participant #3: Female

Participant #4: Female

Participant #5: Female

Participant #6: Female

Participant #7: Female

Participant #8: Male

Participant #9: Male

Participant #10: Male

Participant #11: Male

Participant #12: Female

Participant # 13: Male

Participant #14: Male

Participant #15: Female

Participant #16: Female

Q7. Which of the following do you identify as your computer skills level?

Responses:

Participant #1: Adequate

Participant #2: Proficient

Participant #3: Proficient

Participant #4: Proficient

Participant #5: Proficient

Participant #6: Proficient

Participant #7: Adequate

Participant #8: Proficient

Participant #9: Proficient

Participant #10: Proficient

Participant #11: Adequate

Participant #12: Proficient

Participant # 13: Proficient

Participant #14: Proficient

Participant #15: Proficient

Participant #16: Adequate

Q8. Please identify your race.

Responses:

Participant #1: African American

Participant #2: African-American

Participant #3: African-American

Participant #4: African-American

Participant #5: African-American

Participant #6: African-American

Participant #7: African-American, Hispanic

Participant #8: African-American

Participant #9: White

Participant #10: White

Participant #11: African-American, Hispanic

Participant #12: White

Participant # 13: Asian Pacific Islander

Participant #14: White

Participant #15: White

Participant #16: African-American

Q9. What is your experience with social networking sites?

Responses:

Participant #1: Advanced

Participant #2: Intermediate

Participant #3: Intermediate

Participant #4: Intermediate

Participant #5: Intermediate

Participant #6: Advanced

Participant #7: Intermediate

Participant #8: Advanced

Participant #9: Beginner

Participant #10: Advanced

Participant #11: Intermediate

Participant #12: Intermediate

Participant # 13: Advanced

Participant #14: Advanced

Participant #15: Advanced

Participant #16: Beginner

Q10. Which social media sites do you use?

Responses:

Participant #1: Facebook, LinkedIn, Twitter, YouTube

Participant #2: Facebook, LinkedIn, Twitter, YouTube,
Blogs (reading or writing)

Participant #3: YouTube

Participant #4: Facebook, LinkedIn

Participant #5: Facebook, LinkedIn

Participant #6: Facebook, LinkedIn, Twitter, YouTube

Participant #7: Facebook

Participant #8: LinkedIn

Participant #9: LinkedIn, YouTube

Participant #10: Facebook, LinkedIn, Twitter, YouTube, Other (please specify)

TED.com

Participant #11: Facebook, YouTube

Participant #12: Facebook, LinkedIn, YouTube, Blogs (reading and writing)

Participant # 13: Facebook, LinkedIn, Twitter, YouTube

Participant #14: Facebook, LinkedIn, Twitter, YouTube

Participant #15: Facebook, LinkedIn, Twitter, YouTube, Blogs (reading and writing)

Participant #16: YouTube

Q11. What other sources of information besides social media did you use to research your current university?

Responses:

Participant #1: School Advisors, Friends, and Family

Participant #2: Word of mouth

Participant #3: U.S. News and World Report Best Colleges report- online

Participant #4: I used a simple google search to research the university.

Participant #5: Recommendations from prior colleagues and friends.

Participant #6: The University Websites

Participant #7: Verbal communication

Participant #8: On Line Website, Internet, and Library

Participant #9: school website

Participant #10: Google searches of the professors teaching within the program.

Participant #11: Google

Participant #12: Word of mouth, internet searches

Participant # 13: No social media was used, only Internet searches.

Participant #14: Institutional website

Participant #15: None

Participant #16: Word of Mouth Colleagues

Q12. What part did social media play in choosing your college and what was the importance of that social media information in your overall college choice?

Responses:

Participant #1: I learned the potential and cost of the Northern Illinois University to my future endeavors.

Participant #2: College selected because it was one of few accredited which offered my course of interest.

Participant #3: None

Participant #4: None

Participant #5: Although social media was not a component of my college choice, social media did aid in my choice of higher learning.

Participant #6: A major part

Participant #7: Social media played an important role in my overall college choice.

Participant #8: Social Media helped me find out a lot of information

Participant #9: it did not play a part

Participant #10: Little to none - I selected my University based upon past experiences/touch points. I was also interested in the ability to transition my studies into my parochial school I work at.

Participant #11: None

Participant #12: None

Participant # 13: None

Participant #14: None

Participant #15: None

Participant #16: None

Q13. What was the most helpful source of information to you when you were choosing a college?

Responses:

Participant #1: How much did the university cost? What major did they have available? What extra-curricular programs did they have to offer me? The location of the college?

Participant #2: The cost of the program and its accreditation.

Participant #3: U.S. News and World Report-Best Colleges

Participant #4: Looking at students reviews of the university.

Participant #5: Graduation rates, prior student experience, ability to prepare me for the medical field.

Participant #6: word of mouth

Participant #7: One of the most helpful sources of information was the program overview, contact persons, and tuition information.

Participant #8: The Quality and Standards of the College

Participant #9: program and cost

Participant #10: Phone calls from program professors

Participant #11: College Home Page

Participant #12: recommendation by former student and by professor at a university in Montana

Participant # 13: Program goals, cost, duration, and acceptance criteria.

Participant #14: Descriptions of program and courses

Participant #15: Price

Participant #16: Word of Mouth from Colleagues Graduates of Concordia

Q14. To what extent are you aware of your university's Facebook page and do you utilize it?

Responses:

Participant #1: I am aware of the university Facebook page but I have never utilized it.

Participant #2: I have very little knowledge of the university's Facebook page. No, I do not utilize the university's Facebook page.

Participant #3: Unaware

Participant #4: I located the school's Facebook page in my last quarter.

Participant #5: I do not utilize my University's Facebook page.

Participant #6: no

Participant #7: I am not aware of my university's Facebook page.

Participant #8: I am very much aware of the face book and I utilize it sometimes.

Participant #9: not interested

Participant #10: I don't utilize the University Facebook page (as an out of state student - not applicable). I might have used it if I lived near the campus.

Participant #11: Very aware, yes

Participant #12: wasn't aware - just looked it up.

Participant # 13: none

Participant #14: Very aware of the Facebook page. Utilize it rarely.

Participant #15: Was not aware

Participant #16: I do not use

Q15. Does your university have a blog and if so do you utilize it?

Responses:

Participant #1: I'm not sure if NIU has a blog and no I do not utilize it

Participant #2: I am not sure if the university has a blog. No, I do not use it.

Participant #3: Unsure

Participant #4: The university has a blog, but I do not use it.

Participant #5: Currently, my university does not have a blog.

Participant #6: yes it does but no I don't

Participant #7: No. My university does not have a blog.

Participant #8: yes

Participant #9: have no idea I would not use it.

Participant #10: I have no idea

Participant #11: yes, yes

Participant #12: probably. Blackboard is where I spend all my time - it does not have links to blogs, social media, etc.

Participant # 13: none

Participant #14: no

Participant #15: N/A

Participant #16: I do not use the blog or any sort of social media in reference to the University

Q16. How do you feel about your university's social networking sites?

Responses:

Participant #1: They are simplistic and not noticed for their presences on social networks.

Participant #2: I have no opinion at all.

Participant #3: Not familiar

Participant #4: The university's social networking sites just give general information about the school and it's students.

Participant #5: I am very open to participating in social networking sites with my university. I believe that using social networking online is an excellent way for students to interact educationally.

Participant #6: they are not user friendly

Participant #7: I believe that my university can improve on their social networking sites.

Participant #8: very good

Participant #9: not interested

Participant #10: The university does use a portal / blackboard program which does have some social networking layers. It's okay... But, again - not a major factor since I live out of state.

Participant #11: Neutral

Participant #12: well - now that I've looked at them, I think they will be helpful. It would be great if they provided more accessible

Participant # 13: I wouldn't use it.

Participant #14: They seem almost amateurish in comparison to other institutions.

Participant #15: N/A

Participant #16: Not Applicable/I do not use other than if there is a link in an email