Using Autonomy Supportive Teaching with Nontraditional Distance Learners

by
Tammy McClain-Smith

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Nova Southeastern University
2017

Approval Page

This applied dissertation was submitted by Tammy McClain-Smith under the direction of the persons listed below. It was submitted to the Abraham S. Fischler College of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

Michael Simonson, PhD
Committee Chair

Susanne Flannelly, EdD
Committee Member

Lynne Schrum, PhD
Dean

Statement of Original Work

I declare the following:

I have read the Code of Student Conduct and Academic Responsibility as described in the Student Handbook of Nova Southeastern University. This applied dissertation represents my original work, except where I have acknowledged the ideas, words, or material of other authors.

Where another author's ideas have been presented in this applied dissertation, I have acknowledged the author's ideas by citing them in the required style.

Where another author's words have been presented in this applied dissertation, I have acknowledged the author's words by using appropriate quotation devices and citations in the required style.

I have obtained permission from the author or publisher—in accordance with the required guidelines—to include any copyrighted material (e.g., tables, figures, survey instruments, large portions of text) in this applied dissertation manuscript.

Tammy McClain-Smith
Name

November 24, 2016
Date

Acknowledgments

Thank you to my mother, Lois A. McClain, and my father, the late Glen D. McClain. They both encouraged me to explore my interests and be a leader in whatever I chose to do in life. Even when deciding to continue my education as a nontraditional student, my mother supported me, made sure I was on track, as a mother would, and was delighted when I achieved various milestones. Though she became seriously ill before I could complete this great accomplishment, I still can recognize that she is proud of me and wants me to excel.

Forever thank you to Dr. Michael Simonson, my Dissertation Chairperson. He made me see that I had to think as a scientist, because I am. He also demanded that I do work that was great, not good. I cannot thank him enough for challenging me to do better and think deeper throughout my dissertation journey. This has carried over to areas of my professional career with success. So, no, Dr. Simonson, I continue to not be mad at you, even though you rejected my submissions on several occasions. Those disapprovals were necessary to set me on the right path.

I also would like to thank my friends and family, who encouraged me along the way and let me know how proud they were. Especially my sister, Darlene McClain, who often told me to go straight home after work to complete my dissertation. Additionally, my aunt, Nancy Purvis, who gave me numerous pep talks when I wanted to quit. I thank you both for looking out for me, when I wanted to do otherwise. Special acknowledgment goes to my son, Sgt. Wendell Roderick Smith, Jr., who suffered through my rushed and clandestine phone statements of, “I have an assignment to complete.” I hope you are proud of your mother.

Finally, I would like to thank God for giving me the strength to push through, even when I wanted to stop and pure joy when I saw progress. I did it!

Abstract

Using Autonomy Supportive Teaching with Nontraditional Distance Learners. Tammy McClain-Smith, 2017: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education. Keywords: online courses, instructional design, phenomenology, distance education, teacher effectiveness, higher education, motivation

This applied dissertation was designed to examine the impact of autonomy supportive actions on nontraditional distance education students. The writer conducted a phenomenological research study with volunteer participants from an international distance education and instructional technology organization. All participants were distance education students who were employed full-time with family responsibilities. The writer concluded that autonomy supportive actions have a positive impact on nontraditional distance education students' autonomy and their ability to persist. An analysis of the data revealed an additional area of autonomy support—time—that may be an area of future research.

Table of Contents

Tables

Chapter 1: Introduction

Statement of the Problem

The topic. Students need teachers; however, what about the distance learner, especially the nontraditional distance learning student? According to Choy (2002), 73% of undergraduate students are categorized as nontraditional. Nontraditional students have more at stake than their newly graduated high school counterparts. Many have families, full-time jobs, and their college matriculation to balance. To aid in their ability to manage their time, many enroll in classes that are offered through distance education. However, in some cases, this balancing act results in students who want to succeed in college, but do not have the ability to ensure their own success in a distance environment. To maximize their success rates, teacher actions may aid in increasing their ability to succeed.

The research problem. According to Choy (2002), nontraditional students typically possess one of the following characteristics: (a) delays enrollment, (b) attends college part-time, (c) is financially independent, (d) works full-time, (e) has dependents, is a single parent, or does not have a high school diploma. As a result of any one of these factors, nontraditional students tend to lack "social and cultural capital and academic preparedness, which can impact their development as students, as well as from complex lives that demand practicality in the educational process and emotional support from those who educate them" (Bush, 2010, p. 30). Consequently, distance education, in terms of online delivery, is a path that many nontraditional students take to address their educational needs.

In the online distance education environment, students tend to feel isolated.

Student motivation can be deterred if motivational support is not provided. Burbaugh, Drape, and Westfall-Rudd (2014) found that faculty communicative support improved motivation and student satisfaction. Communicative support comes in the form of "communication before the course and communication during the course" (Burbaugh et al., 2014, p. 345). When there is a lack of faculty communicative support, students feel frustration, which in turn impacts motivation. Simonson, Smaldino, and Zvacek (2015) state that, "the instructor needs to work with learners to establish goals for learning, ensuring that the standards or requirements are being met" (p. 193). By doing so, a foundation for learning is built.

Phenomenon of interest. Autonomy support consist of supportive actions which impact individuals intrinsically through extrinsic means. Sound personal autonomy ensures motivation of an individual. However, in traditional and online distance education classrooms, teacher support of autonomy can be applied to impact intrinsic motivation (Dennen, Darabi, & Smith, 2007). With nontraditional students this is especially important given the external stresses that impact not only their time, but also their motivation. As a result, an examination of the impact of internal course factors, such as class design and teacher interactions, on nontraditional online student autonomy was explored.

Background and justification. Nontraditional student persistence (completion of courses or programs), for both traditional and online delivery, is much lower than that of students who do not possess nontraditional student characteristics. According to the Shapiro et al. (2015), nontraditional students have dramatically lower graduation rates than traditional students. In cohorts that started in 2009, graduation rates were 39.20 %

for students aged 24 and above, compared to 58.6 % for those who started their program under the age of 24. With online students, studies have consistently shown that age is significantly more associated with dropouts. Patterson and McFadden (2009) drew a close correlation between older online students and student attrition. As a result, it is important that instruction within online courses does not impede upon a student's intrinsic motivation to achieve. "In order to motivate adult online learners, online course designers must ensure that the course and the facilitation meet the needs of the students" (Wuebker, 2013, p. 40).

While nontraditional students face non-course-related factors that may impact their persistence, there are also aspects of the learning environment that have an impact. According to Wuebker (2013), course design is impactful to student learning styles. Additionally, teaching presence has a negative or positive influence in the online environment. Teaching presence can come in the way of feedback, instructional style, clear communication, and the need for clarification. These aspects are associated with Garrison, Anderson, and Archer's (2000) community of learning, which enhances online student motivation. As a result, course design and teacher presence are impactful in the online environment. However, underlying motivational factors may impede student persistence in online courses.

As an extension of Self Determination Theory (SDT; Deci, 1971), autonomy supportive (Deci & Ryan, 1985) teacher behaviors may provide the motivation nontraditional learners require for success in a distance education environment. SDT (Deci, & Ryan, 1985) proposes that all humans are self-motivated in three areas: control of their own behaviors (autonomy), being able to learn and master skills (competence)

and having a sense of belonging (connection). Autonomy support is the interpersonal behavior teachers provide during instruction to identify, nurture, and build students' inner motivational resources (Deci & Ryan, 1985). With autonomy supportive teaching, students are motivated more by an instructor who interacts with supportive behaviors of individual actions, as opposed to controlling behaviors where the instructor drives all aspects of learning. Autonomy supportive teacher behaviors include adopting the student's perspective, creating a welcoming environment for student thoughts, feelings and actions, providing explanatory rationales, using non-controlling and informational language, showing patience with students with self-paced instruction, and acknowledging student expressions of negative effect (Reeve, 2009).

Deficiencies in the evidence. In the online distance education field, it has been established that student/student, student/content, and student/teacher interactions are important to the success, motivation, and satisfaction of students. According to the theory of transactional distance (Moore, 1993), learning is viewed as a teacher/student transaction that is impacted by structure, dialogue, and student autonomy. Structure "expresses the rigidity or flexibility of the course's educational objectives, teaching strategies, and evaluation methods" (Moore, 2013, p. 70). Dialogue occurs "as teachers exchange words and other symbols with learners aimed at the latter's creation of knowledge" (Moore, 2013, p. 70). Furthermore, in the context of transactional distance theory, Moore (2013) explained that autonomy is the learner's decision of what to learn, how to learn, and how much to learn. When faculty dialogue is high, student autonomy is low, and there is flexibility within the course. When faculty dialogue is low and the classroom is more structured, student autonomy is high. Furthermore, Dennen et al.

(2007) established that student satisfaction is tied to three factors of instructor communication: (a) frequency of contact, (b) classroom presence, and (c) clear instructor expectations.

However, even given previous studies and their conclusions, little research has been conducted to examine nontraditional online students and their need for autonomy support. This is an area where research shows deficiencies. It was the intent of this study to add to the scholarly body of knowledge in this research area.

Audience. There are several audiences that will benefit by this study's identification and examination of autonomy supportive teaching actions that influence nontraditional distance education students. These audiences include higher education administrators and faculty whose institutions attract nontraditional students. Studies have shown that student motivation has an impact on student persistence. Graduation rates, student persistence, and attrition are metrics that are examined by higher education administrations. If autonomy supportive teaching actions have an impact on student motivation, their utilization may have a positive impact on university persistence and graduation rates.

Nontraditional students are an additional audience that will benefit from the study. Nontraditional students have families, full-time jobs, and their college matriculation to balance. As a result, awareness of motivational practices may impact their ability to succeed in the distance education classroom.

Additionally, course designers will benefit from the results of this study. As course design decisions are made, autonomy supportive teaching actions or course structure based on support of student autonomy, may increase student motivation and, in

turn, persistence.

Research setting and researcher's role. Research was conducted through the use of a qualitative study using a phenomenological approach. Distance education students were invited to participate in the study through the use of their student membership in an instructional technology and distance education professional organization. Study participants included nontraditional distance education college students. Data were collected through the use of semi-structured interviews. By completing the study in this manner, actual experiences of nontraditional students who have experienced autonomy support in the online classroom were explored and analyzed.

Definition of Terms

This section has key terms that evolved from the problem statement and the study's research questions. Conceptual and operational definitions are provided for each of the terms. The following are the terms and their conceptual and operational definitions:

Nontraditional students. According to the National Center for Education Statistics (n.d.**),** Nontraditional students are defined as "a large, heterogeneous population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives" (n.p.). In this study, nontraditional students are defined as students who return to school after the traditional college age of 18–24 years old with family and work responsibilities.

Distance education. Distance education was defined as "institution-based, formal education where the learning group is separated and where interactive telecommunications systems are used to connect learners, resources, and instructors" (Schlosser & Simonson, 2010, p. 1). Distance education in this study was defined in the

same terms, however, specifically targeting online delivery of instruction.

Autonomy support. According to Deci and Ryan (1985), autonomy support includes interpersonal behaviors teachers provide during instruction to identify, nurture, and build students' inner motivational resources. Within this study, autonomy support was defined as instructional behaviors such as adopting the student's perspective, welcoming student's thoughts, feelings and actions, supporting and nurturing student motivational development, providing explanatory rationale, relying on non-controlling and informational language, displaying patience to allow time for self-paced learning, and acknowledging and accepting expression of negative effect (Reeve, 2009). Additionally, autonomy support was defined as specific online course design components which support the aforementioned.

Persistence. Hart (2012) defines persistence as "the ability to complete an online course despite obstacles or adverse circumstances" (p. 30). For the purpose of this study, persistence is successful completion of an online course. It is the opposite of attrition, which is non-completion of a course or, from a broader perspective, a degree program.

Purpose of the Study

The purpose of this study was to identify the impact of autonomy supportive teaching on nontraditional distance learners. Central concepts in this study were the major variables. The major variables in the study were nontraditional distance education students and autonomy supportive teaching actions. Central phenomena studied were autonomy supportive teaching actions used with nontraditional online distance education students. By examining these concepts and central phenomena, distance education instructors and instructional designers will have a greater insight on how their supportive

instructional actions or design impact intrinsic student autonomy of nontraditional students and in turn, student persistence.

Chapter 2: Literature Review Introduction

A search was conducted using the major search databases (e.g., ERIC, ProQuest, Firstsearch) to locate literature for this study. In the search, the focus was on locating peer-reviewed journals, current sources, and primary sources. The literature located was organized using the major variables found within the problem statement and the research questions. The headings of the literature review are: (a) nontraditional students, (b) autonomy support, and (c) online student motivation. Chapter 2 summarizes the literature review and describes the study's research questions.

Theoretical Perspective

The need for identification of autonomy supportive teaching behaviors that influence motivation of nontraditional online students is grounded in SDT. SDT was originally developed by Deci (1971) and was primarily used to study motivation within the field of psychology. SDT proposes that all humans are self-motivated in three areas: control of their own behaviors (autonomy), being able to learn and master skills (competence) and having a sense of belonging (connection) (Deci & Ryan, 1985). The application of the theory's major concepts has been successfully applied in policy decisions and program evaluations in the areas of politics, religion, and education.

In addition to SDT, the learning theory, andragogy also applies to nontraditional distance education students. Andragogy shifts the learning focus to the student, instead of the teacher. According to Knowles (1970), the theory of andragogy has four basic tenets: (a) adults want to be self-directing, (b) learning occurs as a result of experiences, (c) learners are ready to learn when they must meet their societal obligations or assume new roles, and (d) there is a learner need for immediate application of the gained knowledge.

Within the classroom, whether a traditional or distance class, these tenets should be considered when designing instruction and interacting with students. Nontraditional students have family obligations that require them to meet societal obligations. Additionally, there is a sense of immediacy in application with nontraditional students as they strive to gain new skills and knowledge to apply in their already commenced or needing to commence careers.

The application of andragogy, can be seen in education and training. However, while initially focused on adult learners, Knowles (1970) agreed that it can also be applied to younger learners as an alternative to pedagogical approaches. Implementation of andragogy in the classroom comes through means such as the climate of the learning environment, self- assessment, learner planning of their education through choice, learner/teacher collaborating through the educational process, and student evaluation of their achievements. Not only does andragogy apply to the nontraditional learner, aspects of self-determination theory—autonomy, competence, and connection—can be seen in its application.

Nontraditional Students

Control, competence, and connection are the three components that make up SDT. While all humans possess these areas of self-motivation, the application of each depends on an individual's circumstances. Nontraditional college students experience a variety of circumstances and experiences that affect their self-motivation. These experiences are a result of being older, employed, and in some cases having children. According to Chen (2014), from 2000 to 2009, the percentage of enrolled students under the age of 25 increased by 27%, while the percentage of enrolled students aged 25 and over increased

by 43% during the same period. This great increase has resulted in traditional students identified as the minority of college students in the United States. As the current majority of enrolled college students, nontraditional students bring to college the behaviors of adult learners.

Adult learner characteristics include being self-directed by their experiences. According to Chen (2014), nontraditional students in the traditional classroom respond to being self-directed and reflective in the classroom. Additionally, adult learners are reflective in their analysis of new knowledge. Finally, adult learners use their experiences to expand their knowledge during learning (Knowles, 1970).

Bush (2010) concluded that nontraditional students also require connectivity and continuity during their college experience. Additionally, Forbus, Newbold, and Mehta (2010) determined that nontraditional student interactions with faculty and staff helped reduce stress, which led to motivation and performance increases when compared to traditional students. Characteristics such as these may be related to the tenets of SDT and reactions to autonomy supportive teaching in the classroom.

Forbus et al. (2010) sought to examine how nontraditional students handle their situations when juggling school, family, and work. The purpose of their study was to examine the differences between nontraditional and traditional students with regard to stress factors and coping strategies (Forbus et al., 2010, p. 68). Nontraditional students have more stress than traditional students due to the demands of real life. These demands include being older, employed, with family obligations. As a result, they have more pressure to perform than traditional students do. However, because of the nature of their obligations to family, work, and school, they sought to find ways to cope with stress and

time limitations that are different than those implemented by traditional students.

Data collection in the Forbus et al. (2010) study was completed through the use of a survey tool at a 4 year university. Students were asked about attitudinal issues such as motivation for attending college, degrees of involvement in college sponsored activities, school/work life balance, feelings of academic stress, and coping behaviors. Student responses were sorted based on traditional and nontraditional characteristics. According to Forbus et al. (2010, p. 71), "preceding research might lead one to believe that a nontraditional student would experience more stress, and therefore display less satisfaction with the university experience. This study, however, proved that this is not true." Results reflected that there was no significant difference between a nontraditional student's overall satisfaction with the institution than that of a traditional student. Feelings of dissatisfaction are buffered by findings that nontraditional students have stronger relationships with administrators and place a greater value on faculty interaction than their traditional equivalent. As a result, students reported that interacting with faculty and staff was helpful in reducing stress (Forbus et al., 2010). Specific types of interaction may encourage more interaction than others, with an option being autonomy supportive teaching interactions

In addition to coping with stress, nontraditional students are also faced with technology issues. Many traditional students return to the school after being out of the classroom for many years. However, throughout the years, technology in education has increased and been enhanced. According to Jensk (2012), basic computer knowledge has now become a mandatory part of college curricula, and without it, the student's performance will undoubtedly suffer. With the increase of nontraditional students,

colleges must look at ways to engage nontraditional students in the area of technology in the traditional and online courses. A literature review completed by Jesnek (2012) demonstrated that it is imperative that practical application strategies in the form of "pre-enrollment computer competency placement testing and the implementation of required, degree-credit introductory computer courses" (p. 7) be established as a national initiative to support nontraditional students. Additionally, the structure and technology tools for engagement in online courses need to be such that nontraditional students have a positive student experience.

Additional researchers such as Chen (2014) examined the impact of programs specifically designed for nontraditional students. A phenomenological qualitative study was conducted to examine the population to understand experiences and interactions of adult students in a psychology course specifically designed with adult learning principles. The intent was to determine how adult learners responded to self-directed and transformative learning principles and to determine the impact of self-directive and transformative learning principles.

Within the psychology course, at the beginning of a term, students were asked to volunteer for semi-structured interviews to discuss their learning experiences. Ten out of 30 students agreed to participate. Interviews were held 3 weeks after the course ended. Interviews lasted 45 minutes to 1 hour and were audio taped. Based on the study's findings, it was confirmed that "the presence and utility of adult learning principles in the learning process of adult students" (Chen, 2014, p. 412) had a positive impact. Participants appreciated reflective thinking that occurred as a result of the application of self- directed and transformative learning principles.

Chen (2014) added to findings made by Bush (2010) when studying strategies used with nontraditional students in a propriety school setting. Bush (2010) hypothesized that "because proprietary schools produce higher completion and satisfaction rates while serving a similar nontraditional student population, community colleges may find useful lessons in their practices" (p. 3). As a result, a study was conducted to determine how the practices of postsecondary proprietary schools directly influenced nontraditional students. Within the study, several questions were presented, (a) what does college success mean to nontraditional proprietary school students, (b) what practices implemented by proprietary schools impact nontraditional student success, and (c) how have the same practices contributed to student success.

A qualitative phenomenological method was used to answer the study's research questions. The study was conducted at a postsecondary proprietary school with multiple campuses. The college agreed to participate in the study after solicitation of numerous postsecondary proprietary schools across the state of Texas. Within the institution, "students who were moderately or highly nontraditional" (Bush, 2010, p. 64) and were near graduation were sought. Six students, of 39 who returned the initial study query forms, were selected to participate in the study.

Interviews were used as the data collection method. An analysis of interview data identified that the selected nontraditional students viewed college as a personal journey. However, they felt that the school's strategies to promote student, staff, and faculty connectivity were what they sought to have an impact on their education and their lives. Additionally, students credited the school's ongoing practices with their success (Bush, 2010).

When providing an educational environment for nontraditional students, as noted in previously discussed studies, it is important that interactions and strategies align with the needs of students. Nontraditional student make up the majority of students in college. “With the increased growth of nontraditional students in higher education, instructors must reconsider their teaching and learning strategies to embrace nontraditional students’ demands” (Blankson & Blankson, 2008, p. 431). Interaction has been proven to be an important part of online learning, whether it be learner/learner, learner/teacher, or learner/content. When focusing on the learner/learner interaction and learner/teacher interaction, it is important to determine the most effective way for instructors to interact with students.

Blankson and Blankson (2008) focused on this problem by examining nontraditional student discussion board interactions and the effectiveness of integration online discussion boards in the synchronous classroom. They sought to determine (a) if students were satisfied with this strategy, (b) if the strategy provided an active and engaged learning environment, and (c) if students were comfortable participating in this manner. In order to obtain research data, a case study approach was used consisting of 15 nontraditional undergraduate students who took a blended teacher education course. A Likert-scale questionnaire with validated questions from the Current Student Inventory in the Flashlight Evaluation Handbook (Flashlight, Program, as cited by Blankson & Blankson, 2013) was used for data collection. Selected questions focused on the use of technology to aid teaching and learning practices. Students completed the questionnaire after their participation in course discussions.

Study results reflected that students were satisfied with the integration of

synchronous face-to-face online discussions. Analysis of student data concluded that online discussions with synchronous face-to-face class time "encouraged participation and student engagement when it was integrated with the face to face class session" (Blankson & Blankson, 2008, p. 430). Students were actively engaged in discussions and seemed to improve their efforts to participate, when had it been an in class only discussion, some would not have participated. Additionally, allocating time in class to complete discussions may be an effective strategy to increase participation. Implementing this type of strategy may prove helpful in not only a blended course or online course, but also a purely face-to-face course.

Autonomy Support

Autonomy supportive interactions influence intrinsic motivation in many different areas. "Autonomy is an experience of an internally locused, volitional intention to act that can be measured through self-reports of an internal perceived locus of causality, high volition, and a perceived choice over one's actions" (Reeve & Jang, 2006. pp. 208–209). In other words, when a person is autonomous, he or she intrinsically motivated by an internal choice to pursue an act, task, or goal. The pursuance of acts, tasks, or goals, as a result of autonomy supportive actions can occur in different settings. Areas of research, where the application and effects of autonomy support have been investigated are the work place, elementary and secondary education, and higher education. It is important to examine the expansive influence of autonomy support across areas other than higher education to understand how impactful the support of autonomy through relationships affects intrinsic motivation. Within the areas of employment workplace and K-12 education, autonomy supportive best practices, strategies, and correlations are discussed.

Work place. Relationships within the workplace are an important aspect of an employee's life. Employees interact frequently with customers (both internal and external), peers, and supervisors. These relationships are impactful and relative to employees completing assigned duties. In the work setting, "the interpersonal context is said to be autonomy-supportive when managers provide a meaningful rationale for doing the task, emphasize choice rather than control, and acknowledge employees' feelings and perspective" (Gillet, Gagné, Sauvagère, & Fouguereau, 2013, p. 451). The implementation of these actions in the workplace is typically not cohesively applied across an organization. As a result, the extent of the relationship of these actions from supervisors and the organization and the impact on motivation and satisfaction had not been holistically investigated. Gillet et al. (2013) sought to test a model that incorporated workers' perceptions of support in the areas of motivation, work satisfaction, and intentions to stay with the employer. Several hypotheses were tested that centered on positive and negative relationships derived from employee perceptions of organizational autonomy support, employee motivation, and turnover. The results of the investigation showed a holistic model of autonomy support that could be applied in the workplace.

A convenient sample of 735 employees from various companies was used to conduct the quantitative study. Participants completed a series of confidential and voluntary questionnaires within a packet. Questionnaires included a compilation of the Perceived Organizational Support Scale developed by Eisenberger et al. (as cited by Gillet et al., 2013) and the Global Motivation Scale (Gillet et al., 2013). An analysis of the collected data resulted in several correlations between organizational autonomy support, employee motivation, and turnover. It was found that "workers' perceptions of

organizational support and supervisor autonomy support were positively related to their autonomous work motivation" (Gillet et al., 2013, p. 451). Additionally, supervisor autonomy support and organization support result in increased motivation to work and increased satisfaction, which reduces employee turnover. When looking specifically at a supervisor's relationship with an employee, the aforementioned results, confirmed and added to additional research in the areas of worker creativity, tasks persistence, emotional impacts, increased learning, superior performance, and effective coping (Jungert, Koestner, Houlfort, Schattke, 2013).

Employee/supervisor relationships are viewed as vertical support. However, employees also have work relationships with other employees. Employer/employee relations are viewed as horizontal relationships. According to Jungert et al. (2013), horizontal autonomy supportive relationships may also be impactful in comparison to vertical autonomy supportive relationships.

Through the use of two quantitative studies, the relationship between manager and coworker autonomy support was investigated to determine employee impacts. Impacts of each type of support were compared. Motivation, self-efficacy, and expectations of self-advocacy were examined. Study participants included 1,343 employees who worked in three 5-member teams. Data were collected through a compilation of The Work Motivation Scale and the Occupational Self-Efficacy Scale (Jungert et al., 2013).

Upon collection, examination, and analysis of the collected data, it was determined that work motivation and internalization of work related norms and guidelines correlated with the supervisor's autonomy support (Jungert et al., 2013). However, co-workers perceived greater autonomy support from their fellow co-workers

than what was perceived from their supervisors. This resulted in great self-efficacy or belief in the employee's abilities. Study results confirmed that while a supervisor's autonomy support was effective, co-worker perceptions of autonomy support are also impactful.

Employee/employee autonomy support has also been proven to have impact in additional areas. Liu, Shu, Wang, & Lee (2011) examined the impact of autonomy support amongst team members in the area of employee turnover. By quantitatively investigating relationships amongst team members, study objectives were to examine individual team member disposition based on autonomy support of team leaders and team peers, along with the context and impact of identified effects on employee turnover. Hypotheses used within the study focused on (a) team member autonomy and its relationship to work related empowerment, (b) the relationship of peer autonomy support and its relationship to fellow team members, (c) team leader autonomy support of an individual team member, and (d) team member autonomy support of an individual team member.

In order to study the aforementioned hypotheses, 1,703 members from 168 teams in a manufacturing factory were invited to complete an initial survey to collect demographical data, along with information on autonomy orientation and autonomy support from the team leader and peers (Liu et al., 2011). Initial surveys were returned at a 71% return rate. Four months after the initial survey, participants were provided an additional survey that addressed emotional well-being. Each survey included a compilation of questions from standard self-determination, autonomy support research instruments: the General Causality Orientations Scale, the 15-item scale on autonomy

support in the organizational context to measure a team leader's autonomy support, and the Psychological empowerment scale (Liu et al., 2011). Four months after the last survey, voluntary turnover data was obtained from the company's human resources department. Study results reflected a positive correlation between empowerment, autonomy support, and team member retention. According to Liu et al. (2011, p. 1312), "results also underscore the importance of employees' relationships with team leaders and coworkers to employees' experience of autonomy." Results from the investigation of team members in the work place further expanded on the role of autonomy support within the areas of organizational actions and team member actions.

To further explore autonomy support in the workplace, investigators also examined the impact of mentoring/protégé autonomy supportive programs within the workplace. Liu and Fu (2011) examined relationships between protégés and mentors within the social context of protégé personal learning. Goals of the study included (a) examining autonomy supportive team climates, (b) mentor support of protégé autonomy, and (c) individual protégé perception of their own autonomy. It was hypothesized that there would be a positive correlation between an autonomy supportive climate and protégé personal learning, mentor autonomy support and protégé personal learning, and protégé perceptions of their autonomy and their personal learning, along with an additional hypothesis related to protégé personal learning and job climate.

The study was conducted at a multinational insurance firm in Hong Kong. Sales teams were targeted as study participants. The company had an 18-week sales team protégé and mentoring program where pairs were requested to meet at least 3 hours per week. Mentors were responsible for guiding protégés to improve performance as the

industry constantly changed. A quantitative study was conducted consisting of three phases of data collection, using surveys. The study's survey return rate was 84% with 417 of 498 surveys completed. Results "revealed that an autonomy-supportive team climate accentuated the positive effects of the autonomy support that a protégé´ received from his or her mentor and the protégé's own autonomy orientation on his or her personal learning in the team" (Liu & Fu, 2011, p. 1204). Additionally, it was found that employee learning is magnified when they are matched with an autonomy supportive mentor.

K-12 autonomy support strategies. In the non-education workplace, the positive impact of autonomy supportive interactions and relationships has been confirmed. Within the educational arena, perception of autonomy support by teachers has been considered. Previous research confirmed that "autonomy support may help to reduce feelings of burnout, anger, and anxiety and that it lays a foundation for effective teaching and learning" (Collie, Shapka, Perry, & Martin, 2015, pp. 2–3). Accordingly, Collie et al. (2015) deduced that teachers require a higher amount of autonomy support than many professions, since teachers are constantly modifying and adapting their actions as a result of student needs and school changes. In their study, they sought to explore teacher psychological function at school, in the area of needs satisfaction. This was done by examining the relationship of autonomy, relatedness, and competence; all key components of self-determination theory. In doing so, they hypothesized that these areas would have a positive impact in teacher wellbeing and job satisfaction.

To study this area, data were collected from 485 Canadian teachers using a quantitative study through a district's teacher association. Study participants completed an online survey instrument distributed through the association. The survey instrument

was used to “measure need satisfaction for autonomy, competence, and relatedness with colleagues’” (Collie et al., 2015, p. 5), well-being, teacher motivation job satisfaction, and organizational commitment. An analysis of the study’s data drew correlations between teachers’ perception of autonomy support and their belief of whether their needs were met professionally. This in turn correlated with teacher motivation and as a predictor of job satisfaction and commitment. These results show a cause and effect thread that are impactful to a teacher’s performance within the classroom.

According to Katz and Shahar, (2015), as teachers carry their perceptions into the classrooms, these same perceptions can serve as predictors of the extent of autonomy support provided in the classroom. It was hypothesized that a teacher’s own motivation and beliefs about student motivation are predictors of a tendency to opt for an autonomy-supportive rather than a controlling style. During the study, the intent was to show the relationship between teacher motivation and student autonomy support with students.

Through the implementation of a quantitative study, 154 teachers at several K-12 school levels were surveyed using a 5-point Likert questionnaire. Results from study data showed that teachers that teach out of interest and enjoyment are more likely to implement autonomy supportive behaviors (Katz & Shahar, 2015, p. 583). Additionally, teachers who positively perceived autonomy support were more likely to use an autonomy supportive style instead of a controlling style.

Within the K-12 environment, teachers with a positive perception of autonomy support implement supportive actions that encourage student decision making and ownership. Stefanou, Perencevich, Dicinto, and Turner (2004) sought to identify actions that specifically distinguished autonomy support when practiced. It was proposed that

autonomy support could be reflected in three separate ways:

> Organizational autonomy support (e.g., allowing students some decision-making role in terms of classroom management issues), procedural autonomy support (e.g., offering students choices about the use of different media to present ideas), and cognitive autonomy support (e.g., affording opportunities for students to evaluate work from a self-referent standard). (Stefanou et al., 2004, p. 97)

A qualitative study using teacher narratives was implemented to specifically identify these actions. From teacher narratives, it was confirmed that choice and decision making are important as an aspect of autonomy supportive behavior. However, simple choice about tasks and roles have the greatest influence when it comes to cognitive engagement. Additionally, organization and procedural autonomy actions are needed, however they do not provide a significant impact on student engagement and intrinsic motivation. Finally, cognitive autonomy support is the essential factor needed in order to maximize student motivation and engagement (Stefanou et al., 2004). Study results confirmed the role and positive impact of specific types of autonomy support and student choice.

Choice is one of the key components of self-determination theory and is identified as a key element “to supporting feelings of autonomy, motivation, and healthful functioning” (Patall, Cooper, and Wynn, 2010, p. 1). Stefanou et al. (2004) narrowed the use of choice in education when addressing that the impact of choice was limited to simple choice tasks and roles. However, Patall et al. (2010) sought to discover to what extent choice was impactful to students. The purpose of the study was to identify the effectiveness of choice when used with additional teaching practices and to identify

choice's role in autonomy support in the classroom. Study participants were 207 high school students in Grades 9-12. Experimental lesson treatments and training were provided to teachers. Students were presented with lessons that included homework choices. Choices were self-select and random drawing. Over a 4-week period, questionnaires were issued regarding each student's background, demographics, and learning habits. Questionnaire items were related to intrinsic motivation. Once data were collected and analyzed, it was found that students felt more interested in and enjoyed homework more with choice, than if they had not had a choice. Additionally, assessment scores were higher when homework assignments supporting the assessment were based on choice. According to Patall et al. (2010), "the choice of homework options is likely to have given students an opportunity to engage in the homework task that was reflective of their personal interests and goals" (p. 17). In regard to additional instructional actions to be implemented along with providing choice, it was also concluded that providing students with a rational for tasks is essential to enhancing intrinsic motivation.

Reeve and Jang (2006), further explored autonomy supportive actions at the K-12 level by narrowing down instructional behaviors that positively and negatively impact autonomy support. The basis of their study was 11 autonomy supportive behaviors that were preferred by teachers with an autonomy supportive style, correlated with 10 behaviors that were preferred by teachers with a controlling style. The objective of the study was to determine which actions "actually promote or interfere with students' experiences of autonomy" (2006, p. 212).

During the mixed methods study, Reeve and Jang (2006) had the participation of 26 preservice teachers. Participants were randomly assigned the role of teacher or

student. Students completed puzzle patterns. Teachers were provided with instructions for completion of a puzzle and worked with each student to complete their puzzle. After completion, a questionnaire was provided to each participant which assessed the areas of interest-enjoyment, engagement, and performance using a self-report intrinsic motivation scale (Williams, Wiener, Markakis, Reeve, & Deci, as cited by Reeve & Jang, 2006).

Study results revealed that several instructional behaviors positively correlated with student autonomy. These actions include:

> Listening, creating time for independent work, giving the student opportunities to talk, praising signs of improvement and mastery, encouraging the student's effort, offering progress-enabling hints when the student seemed stuck, being responsive to the student's questions and comments, and acknowledging the student's perspective and experiences. (Reeve & Jang, 2006, p. 215)

However, the highest correlations came from teacher acts of attunement, such as acknowledging time listening, time for student talking, and communicating perspective-taking statements (Reeve & Jang, 2006). Even though these instructional actions were the highest correlated, the remaining actions also correlated with being positively autonomy supportive.

In addition to the application of specific autonomy supportive teacher actions, intervention programs based on autonomy support have also been studied. Cheon and Reeve (2015), supposed that autonomy support interventions could be taught as part of new teacher program along with the application of other theoretical educational strategies. During their research, they sought to confirm their hypotheses that teachers using an autonomy-supportive intervention program (ASIP) would rate higher when

evaluated by trained raters of autonomy support and their students. Additionally, they hypothesized that students of teachers that participated in the ASIP, when compared to teachers who did not, would report higher autonomy, competence, and satisfaction, along with displaying more classroom engagement and less student amotivation.

The study consisted of 15 teacher participants. Teachers received ASIP training in a three-part workshop. After the workshop, students and teachers were split into the control group and intervention group. Students of these teachers were to complete questionnaires during the first week of class. Teachers then completed their lessons using ASIP methods. Students took a total of three surveys throughout the study. Once survey data was analyzed, it was determined that the ASIP was successful based on the rating of raters and students who reported their perceptions of the teacher's motivating style. As a result, both study hypotheses were confirmed. Teacher participants reported that "ASIP helped them improve their classroom motivating style, and it did so in a way that produced a strong sense of importance, usefulness, and satisfaction" (Cheon & Reeve, 2015, p. 109). Results from this study further support the relationship of autonomy support of students as an intervention program in the classroom.

Types/effects of autonomy supportive relationships. Research findings concerning autonomy support in the classroom are clear in describing the positive effects. However, Furtak and Kunter (2012) sought to distinguish how categories of autonomy supportive behaviors can support different types of instruction. As noted previously by Stefanou et al. (2004), autonomy supportive behaviors are categorized into two distinct categories, procedural autonomy support, where a student chooses and handles their own resources and cognitive autonomy support, where it is possible for students to find

various ways to solve the same problem. During the study, the following questions were addressed, (a) how do students' experience of autonomy in the science lessons affect their achievement and functional motivation? (b) what are the effects of cognitive and procedural autonomy-supportive science teaching on student achievement and motivation, and (c) do cognitive and procedural autonomy support show additive or interactive effects?

Forty-eight students participated in the study where teachers taught a lesson using a template based on autonomy supportive actions. Study data were collected through the implementation of an experimental design using pre and post questionnaires. The pre-questionnaire was used to collect data regarding motivation. The post-questionnaire was used to collect data on student perception of the teacher's instruction. Students were also given a follow up test 3 months later. An analysis of the collected data concluded that students did not learn more or report high intrinsic motivation as a result of cognitive autonomy-supportive actions. However, there were gains noted from procedural autonomy support actions. Furtak and Kunter's (2012) results confirmed results, previously determined by Stefanou et al. (2004).

In addition to the impact of the types of autonomy supportive behaviors, there is also the question of the number of autonomous supportive relationships and their impact on students. The most common types of autonomous supportive relationships are father-child, mother-child, and teacher-student. Individually, these relationships have impacts on student learning outcomes. The intent of the study implemented by Guay, Ratelle, Larose, Vallerand, and Vitaro (2013) was to investigate whether or not there are correlations in having one versus several autonomy supportive relationships. Autonomy

supportive relationships examined were father-child, mother-child, and teacher-student relationships. It was hypothesized "that receiving autonomy support from many significant individuals (i.e., mother, father, and teacher) would better sustain motivation, perceived competence, and achievement over receiving autonomy support from only a few individuals" (Guay et al., 2013, p. 375).

The study was implemented using a random sample of 4,000 high school students from one school year. Students and their parents were mailed a consent form and a 16-item questionnaire. Questionnaire items addressed student's autonomy support perceptions of their teacher, mother, and father, academic competence, and motivation. Additionally, academic achievement information was obtained through school transcripts. Study results reflected that students who perceived that all sources, mother, father, and teacher were autonomy supportive showed better achievement, showed greater motivation and perceived themselves more competent than students who reported non-autonomy supportive behaviors. Study results correlated with previous studies reflecting the same. Additionally, results further confirmed the positive impact of autonomy support on students.

With so much positive evidence reflecting that autonomy supportive actions are immense classroom influencers, the role of structure within the classroom has been questioned. Jang, Reeve, and Deci (2010) stated that "when students engage in classroom learning, there is almost always some aspect of the teacher's behavior that plays a role in the initiation and regulation of the engagement" (p. 588). However, these behaviors are not exclusive to autonomy support actions. Classroom structure is also a part of the equation. Autonomy support and structure are usually offered as separate from one

another in relation to student learning. Jang et al. (2010) hypothesized that the two were actually interrelated. Their study objectives were to address, (a) how do autonomy support and engagement relate to one another in regards to teacher style, and (b) do both autonomy support and structure positively support student engagement.

To conduct the quantitative study, school principals gave researchers permission to visit classrooms in order to observe teachers and implement an observation rating scale and student surveys. Observers asked each teacher to reserve time at the end of class to administer an anonymous student questionnaire. For the observations, observers used a rating sheet which provided varying levels and behaviors of autonomy support and structure. Eighty-four of 133 teachers allotted the requested time at the end of the observation period. Compilation and analysis of data collected from the teacher rating scale and student questionnaires reflected that autonomy supportive and control actions coexisted. Reeve and Deci's (2010) findings reflected that autonomy support positively influenced students' collective and individual self-engagement, while structure predicted collective behavioral engagement. Conclusions support that teacher structure and autonomy support positively co-exist in the effective classroom.

In classrooms using digital resources, structure must be considered as well. Some strategies associated with autonomy support are providing choice and student rationale. However, in a digital environment, the nonlinear element that occurs with choice may result in students not making deep cognitive connections that are needed to master learning outcomes. As a result, structure is also needed. Van Loon, Ros, and Martens (2012) investigated the impact of autonomy support on digital learning tasks. This was compared with digital learning tasks that provided structure only. Digital learning

environments examined included problem based learning where students had to solve a complex problem in a hypermedia environment. However, in these environments there are increased demands on learning by the way of extensive information and options (Van Loom et al., 2012). As a result, students can become distracted from learning activities needed to master learning objectives. Additionally, in some cases problems are poorly structured and designed. The goal of the study was to determine what should be contained in a digital problem solving learning environment, in relation to improving learning and motivation through autonomy support and structure of said environment.

The study was implemented through the use of an experimental design using a random selection of students. One of four design conditions was randomly assigned to 320 fifth-grade students, at schools where students were accustomed to working independently and where computers were integrated into the curriculum. Learning conditions were identified as Learning Condition 1–4. Learning Condition 1 included autonomy support and structure; Learning Condition 2 contained structure without autonomy support; and Learning Condition 3 contained autonomy support without structure. Learning Condition 4 did not contain either. After completing a problem-based digital lesson using one of the aforementioned conditions, students completed the Intrinsic Motivation Inventory (IMI) (Van Loom et al., 2012). Additionally, student learning outcomes were measured based on presentations presented by students (PowerPoint or Word). Independent reviewers scored student presentations. Study results confirmed that "students provided with autonomy support experienced a greater sense of autonomy, and students provided with structure experienced a greater sense of competence" (Van Loom et al., 2012. p. 1027). Additionally, digital learning tasks using

both autonomy support and structure had a positive effect on motivation. When either are used, motivation is increased. However, when each are used in conjunction with the other, the result is high motivation. Finally, the study also confirmed that digital tasks using both autonomy support and structure positively impact learning outcomes.

While it has been confirmed that autonomy support and structure support each other within the classroom, control is an area that does not support student autonomy. Students exhibit a myriad of behaviors in the classroom. Some of these behaviors include self-handicapping, which includes procrastination actions such as delayed studying and failing to study as justification of poor performance (Shih, 2012). Finding the root of these behaviors and determining remedies to limit such negative behaviors has been a goal of previous studies. Shih's (2012) study examined relationships between psychological controlling teacher behaviors and student avoidance strategies in comparison to the same behaviors with autonomy supportive teaching strategies.

During the study, data was collected through the participation of 735 ninth-grade students in 14 junior high classes. Each school provided permission, and participants were invited to complete a self-report survey during their class. The survey was a compilation of survey instruments that measured student perception of autonomy support, psychological control, student burn out, work engagement, help avoidance, and self-handicapping. The study confirmed conclusions from previous studies that "when students' need for autonomy is met through teachers' provision of autonomy support, their true self-esteem is nurtured. They do not continuously have to fulfill some standards of performance to feel worthy" (Shih, 2012, p. 341). As a result, defensive coping methods such as self-handicapping and avoidance are less likely to be used. Additionally,

these same students are more likely to seek help when needed as compared to students of teachers with controlling behaviors.

Traditional higher education classrooms. Within traditional and online classrooms, nontraditional learners face some of the same challenges when taking college courses. However, within the traditional classroom, nontraditional students have the benefit of face to face interactions with their instructor. Without learner/instructor interaction there may be negative occurrences which may be positively impacted by autonomy supportive teaching actions. Tze, Klassen, and Daniels (2014) studied the relationship of autonomy support, student boredom, and engagement. A qualitative study was conducted to correlate student boredom with levels of student engagement, and autonomy supportive instructional behaviors. It was hypothesized that boredom (learning-related and class-related) would increase during a course of study and student engagement (vigor, absorption, dedication, and effort regulation) would show a decrease over time (Tze et al., 2014).

Student participants were selected from a participant pool at a Canadian university. Participants completed an online questionnaire, five separate times, over a series of weeks within the fall semester. The study's questionnaire was a compilation of associated questions from previously developed and validated questionnaires. Autonomy support was evaluated using Williams and Deci's (Tze et al., 2014) six-item scale from the Learning Climate Questionnaire (LCQ). Learning-related and class-related boredom scales were measured using the Academic Emotions Questionnaire (Tze et al., 2014). Cognitive, affective, and motivational engagement were measured by the shortened version of the Utrecht Work Engagement Scale for Students (Tze et al., 2014). Of the 158

student participants, 144 student responses met the criteria of the study.

Through analysis of data collected during each administration of the study's questionnaire, it was found that as class time went by, overall student boredom increased. However, boredom when studying the content did not. Additionally students' general perceptions of support provided by their university instructors for autonomous learning, negatively predicted the initial level of boredom in class. Negatively perceived autonomy support also predicted the corresponding class-related boredom (Tze et al., 2014, p. 185). In other words, in order to decrease student boredom, autonomy support must be increased.

Online higher education classrooms. Within the online college classroom, autonomy supportive teacher behaviors can also have a role in the motivation and engagement of students. Within a hybrid online learning environment, Butz, Stupnisky, Peterson, and Majerus (2014, p. 212) explored the relationship between "how students' motivation can be supported to increase their achievement in synchronous hybrid learning environments." Through the lens of SDT, the goal was to determine how specific psychological elements affect student motivation in synchronous hybrid learning environments. Within the study, student autonomy was examined as a result of instructor actions within an online and hybrid graduate program. The study's research questions were (a) Do online and on-campus students in synchronous hybrid programs perceive need satisfaction differently and (b) How are these perceptions of need satisfaction associated with SDT-based motivation, and in turn perceived success (Butz et al., 2014).

Participants in this quantitative study were graduate students in a hybrid and an online MBA program at a Midwest United States university. The sample size was 112

participants within the ages of 20 to 59 years old. Student participants in each learning environment were required to complete a survey tool developed to measure the areas of needs satisfaction, student motivation, delivery mode perceptions, and perceived success. Based on an analysis of survey data, it was concluded that there was little difference in the amount of needs satisfaction between online and hybrid traditional students. Additionally, results confirmed previous findings that online students often feel isolated compared to traditional education students. However, in a mixed, hybrid environment, feelings of isolation can also be found. As a result, educators teaching in a synchronous hybrid learning environment should make a concerted effort to encourage online and on-campus students to form connections with their classmates" (Butz et al., 2014, p. 220). Finally, it was found that in relationship to SDT, online students had a higher perception of needs satisfaction within their course compared to hybrid students. As a result, strategies which provide needs satisfaction may be useful when designing hybrid courses.

Few studies have examined self-determination theory and autonomy support in the online classroom. However, those that have, have shown that student perceptions in an online environment are different than those in a face to face environment. Differences in perception were related to students' motivation, course satisfaction, and student learning (Chen & Jang, 2010). According to Lee, Pate, and Cozart (2015), autonomy support can be implemented successfully in a distance education environment by following three guidelines: (a) provide choices where students may select assignments based on preference, (b) provide rationale of the importance of the course, content, assignments, and (c) provide opportunities for personalization by allowing flexibility (2015). These guidelines are rooted in the results of Chen and Jang's (2010) extensive

study to relate self-determination theory to distance education.

The purpose of Chen and Jang's (2010) study was to validate self-determination theory in the online environment. Specifically, the relationship between needs support in the online classroom, which includes autonomy support, competency support, and needs satisfaction was examined. It was hypothesized that online learners' self-determination positively predicts learning outcomes.

Two online certificate programs were used to conduct a quantitative study. Two hundred and sixty-seven students participated in the study. A compilation of three research tools was used to collect data. These tools were compiled into a single questionnaire that was administered during the last week of the term. Additionally, student grades and learning management system usage data were collected.

Based on the analysis of the data, it was concluded that support of autonomy and competency positively affected online students' perceived autonomy, relatedness, and competency, which resulted in the satisfaction of the three basic needs for motivation. Students' need for satisfaction, in turn, "positively affected online students' self-determination" (Chen & Jang, 2010, p 744). As a result, online students are supported effectively when strategies are used to support autonomy, relatedness and competency.

Studies have shown that autonomy support of students has impact in various ways within the traditional and online classroom. Specifically with online students, there is a need to abate the feeling of isolation to ensure motivation and persistence. Without intrinsic motivation and satisfaction, students may be at risk in their quest to complete their courses or program.

Online Student Motivation

Kuo, Walker, Schroder, and Belland (2013) sought to rank types of interactions in online classrooms and determine how specific interaction types influenced student satisfaction. The primary research question was "To what extent does each predictor variable (learner–instructor interaction, learner–learner interaction, learner–content interaction, Internet self-efficacy, and self-regulated learning) correlate with student satisfaction?" (p. 38).

Through the use of the quantitative method of research, 990 undergraduate and graduate students were queried, with a 22% response rate from the sample. Participants were surveyed using an online survey instrument that included "questions on demographics, five predictor variables and the outcome variable of student satisfaction" (Kuo, et al., 2013, p. 39). Participating instructor's offered participants completion of the survey through their online course at the end of the scheduled course time period. Based on student responses, results revealed the following rankings of interaction types based on satisfaction level: (a) learner/content, (b) learner/instructor, and (c) learner/learner. Learner/content interaction was revealed as the most significant type of interaction. A significant find in this study was that learner/learner interaction did not have a significant influence on student satisfaction. As a result of these study findings, it was recommended that online courses be designed with more focus on learner/content interaction since they brought more student satisfaction.

While Kuo et al. (2013) concluded that learner/content interactions are the most important in regards to student satisfaction and motivation, learn/instructor interactions are also important in an online learning environment. In particular, the communication

and learning style of both instructor and learner are important factors in online student motivation. Hassanein (2015) implemented a mixed method study to compare the learning style of Saudi university students to the learning styles of their non-Arabic speaking eLearning instructors. As online learning became more prevalent, government funding for expansion of eLearning in Saudi Arabia greatly increased. As a result of the expansion, many non-Arabic speaking faculty members were hired to teach Saudi students. However, Saudi students appeared to be unwilling to participate in online courses in comparison to the size of the eLearning expansion. The goal of the study was to determine if the underlying reason for lack of student participation was the conflict between instructor learning style preferences and the learning styles of Saudi students.

> Non-Arabic speaking EFL faculties use their learning style preferences that almost certainly mismatch those of their Saudi students in the design and delivery of the instructional content of e-learning courses. This mismatch between the learning styles of the faculties and the predominant learning styles of their students often results in greater learning difficulties among students and consequently refraining from participation in e-learning. (Hassanein, 2015, p. 8)

In the quantitative portion of their mixed method study, a probability approach was used with a random and convenience sampling strategy. Twenty-seven faculty members and 74 students of these faculty members participated in the study. In the qualitative portion of the study, purposeful sampling was implemented, using a homogeneous sampling strategy. This resulted in 29 student participants. These students were students of faculty members in the quantitative portion of the study.

When implementing his study, Hassanein (2015) conducted the study in two

concurrent phases where qualitative data and quantitative data were collected at the same time. In the first stage, non-Arabic speaking faculty were randomly selected and contacted to administer the questionnaire. Upon agreement to participate, each faculty member was sent an e-mail with the study's questionnaire and a cover letter with instructions. The same procedure was used for student participants in the quantitative stage of the study.

In Stage 2 of the study, students of faculty members who completed the questionnaire were randomly selected to participate in semi-structured interviews. Twenty-nine students agreed to participate in the interviews. Students were broken up into six subgroups of 4 to 6 students. Students were asked two questions within the group and were allowed to expand upon their answers and discuss their answers with other participants. Upon completion of each stage's data collection, data was interpreted to explain their results and draw conclusions.

Upon completion of data analysis, it was concluded that faculty members and students have different learning styles. "Drastic mismatches do exist between non-Arabic speaking EFL faculties and their Saudi EFL university students in most of their learning style preferences" (Hassanein, 2015, p. 22). Saudi students prefer auditory and group learning styles. "Individual learning is the first and the most preferred major learning style for non-Arabic speaking EFL faculties as compared to group learning which was rated as a negative style by them" (Hassanein, 2015, p. 23). The awareness of these conflicts in learning style preferences can be used to drive the design of online courses for Saudi students. As a result of this study, the research problem where Saudi students have a negative view of online courses can be addressed in order to increase eLearning

enrollment. Once addressed appropriately, student motivation may increase.

Online motivation is not solely an effect of learning environment or a learner's attributes. There may be intrinsic motivation factors, such as learner autonomy, that may influence online students. Hartnett, St. George, and Dron (2011) sought to examine the impact of autonomy in the motivation of online students by identifying what types of motivations existed in the study's learners. The primary study question was, "What is the nature of motivation to learn in online contexts" (Hartnett et al., 2011, p. 24).

The study was conducted using the mixed methods using case studies with purposeful sampling. Two cases were used from the same program within the same institution. Participation required courses to be web based and students were required to participate within the online course. During one semester of instruction, data from 21 participants were collected using online questionnaires, interviews, archived online data (including online asynchronous discussion transcripts and usage statistics), achievement data, and course resources. The online questionnaire was divided into three categories: demographic information, a motivation scale, and open ended questions (Hartnett et al., 2011). The motivation scale was self-report using the situational Motivation scale (Guay, Vallerand, & Blanchard, as cited by Hartnett et al., 2011).

Study results concluded that situational influences impact online student motivation. Within Case Study 1, half of study's participants had positive motivational scores, while the remaining half had negative scores. Positive scoring participants saw value in the course's learning activities. These students reported high intrinsic motivation. Negative scoring participants were not motivated by the activities or intrinsically. Instead they were motivated by external factors. Within Case Study 2, all

participants had positive motivational scores and found value in assigned tasks. As a result of inconsistent results of what motivates and what does not motivate online students, Hartnett et al. concluded that "practitioners need to be cognizant of the important role they play in influencing learner motivation when designing learning activities" (2011, p. 33). Not all online students are intrinsically motivated as previous studies reported. There is a mixture on intrinsic and extrinsic motivation. The study reinforced the need to provide rationale, student choice, and frequent communication with traditionally delivered online students.

In distance education, nontraditional massive open online courses (MOOCs) have become popular. MOOCs allow an unlimited number of students from anywhere in the world free access to courses often delivered by world renowned experts (Durksen, Chu, Ahmad, Radil, & Daniels, 2016). Autonomy-supportive learning environments lead to "better outcomes (when compared with a controlling climate) and that an absence of autonomy support can substantially decrease students' satisfaction of basic psychological needs" (Deci & Ryan, as cited by Durksen, Chu, Ahmad, Radil, & Daniels, 2016, p. 244). However, it is reasonable to state that individual autonomy supportive interactions and relationships are not always possible with MOOCs as a result of their high number of students. Durksen et al. (2016) sought to identify the relationship of self-determination theory with MOOCS, breaking out the areas of competence, relatedness, and autonomy.

Data were collected during a Canadian university's first offering of a MOOC, Dino 101. Participants were recruited through a voluntary link posted on the main page of the Dino 101 course website. The link was available for approximately 1 month, from the last week of the course until the official end of the course. Any student registered in Dino

101 who logged in during that time had access to the link regardless of how frequently they had participated in Dino 101 (Durksen et al., 2016). The data collection questionnaire was a compilation of several instruments used to collect data at the end of the course. Questionnaire items were related to achievement, academic motivation, and tasks values. Results reflected that many participants possessed high autonomy. Additionally, results confirmed that competence and autonomy are closely related. However, the needs of one aspect of self-determination theory, relatedness, were not met within the MOOC. These findings can be inferred to conclude that within a MOOC, autonomy supportive actions may not be needed, as students who take these types of courses have high personal autonomy which results in high motivation.

Summary of Literature Review

Findings summarized in the aforementioned studies show that nontraditional students have specific needs within higher education settings. Students need opportunities to reflect and require frameworks that provided appropriate support and motivation. Student motivation is impacted by multiple factors that include learning style, and student/content, and student/instructor interactions.

Student/instructor interactions may be influenced by the type of support provided by instructors. While autonomy supportive behaviors in support of SDT have been identified as having positive influences in the workplace, K-12 education, and the traditional classroom. Influence has been shown in the types of autonomy supportive relationships, the number of relationships, the most effective autonomy supportive actions, along with teacher motivation and perceptions. However, there is little research to support the influence of autonomy support in the online classroom. With online

students in general there is a need to foster content/learner and instructor/learner interactions. Autonomy supportive actions and influences to course design positively influence the online environment (Lee et al., 2015). However, with further research within the target population of online nontraditional students, the few positive findings of the impact of autonomy supportive behavior in the online environment may be found to specifically motivate these students as well.

Research Questions

The research study had three research questions. These research questions were framed by SDT, which helps to justify each question. The research questions are also reflected in the key works of other researchers, such as Deci (1971), Deci and Ryan (1985), and Chen and Jang (2010). The following are the study's research questions:

1. Does Autonomy Supportive teaching actions provide adult learners with competing priorities the flexibility they need in a distance education learning environment?
2. How did instructors implement Autonomy Supportive teaching actions with nontraditional distance education students?
3. How do Autonomy Supportive teaching strategies impact nontraditional distance education students?

Chapter 3: Methodology

Aim of Study

The purpose of this phenomenological research (Moustakas, 1994) was to determine autonomy supportive teacher actions that encourage autonomy within nontraditional distance education students. Data on the nontraditional student population present evidence that this population is at risk as a result of external factors that impact their education. However, factors specific to the online instructor and classroom may mitigate these factors by positively impacting student motivation. As a result, students may choose to persist in particular online courses.

Enrollment in online courses has been consistently high at universities over the last several years. Additionally, the growth of nontraditional student enrollment has outpaced enrollment of traditional students within universities. This study provides strategies to enhance online courses for universities and course designers which offer online courses to nontraditional students.

Qualitative Research Approach

Through the use of phenomenological research studies, researchers are provided a window to view experiences of their study participants. The application of phenomenological research is best suited when there is a need to determine shared experiences that occur as a result of an identified phenomenon.

Creswell (2013) states that, “a phenomenological study describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon” (p. 76). Data are collected through the use of interviews in which participants relay and expand upon their experiences. According to Entwistle (1997), “the interviews which

provide the data are designed to encourage respondents to reflect on their own experience" (p. 29). Through analysis of participant reflections, new discoveries not ascertained using other methodologies, may be derived. During "phenomenological studies the investigator abstains from making suppositions, focuses on a specific topic freshly and naively, constructs a question or problem to guide the study, and derives findings that will provide the basis for further research and reflection" (Moustakas, 1994, p. 46). Since research of the impact of autonomy support on nontraditional distance education students is limited, conducting a phenomenological study in this area may open doors to additional areas of study for the same topic. The central phenomena that were studied are autonomy supportive teaching behaviors and course design elements.

Participants

The implementation of the phenomenological study elicited experiences of autonomy supportive teaching behaviors and course structure from the point of view of nontraditional online students. The numbers of nontraditional online students has increased substantially as online distance education has expanded. For this phenomenological study, nontraditional students was defined narrowly as those being above the age of 24 and possessing family and work responsibilities. Qualifiers for family and work responsibilities include working full time and/or has dependents, or is a single parent. These qualifiers are a partial list of characteristics as defined by Choy (2002). However, the identified qualifiers have the most substantial impact on persistence of nontraditional students.

Criterion sampling of study participants occurred to ensure that all participants had experience with the study's phenomenon. According to Creswell (2013), criterion

sampling works well with phenomenological studies and ensures that the best data are derived. As a result, upon solicitation of study participation, criteria for study participation were clearly defined. All study participants fell into the criteria used to define nontraditional students. These criteria included students who returned to school after the traditional college age of 18–24 years old with family and work responsibilities. Additionally, participants must have taken an online class within the last year or was currently enrolled in an online distance education course.

Creswell (2013) concludes that the phenomenological study group must be heterogeneous and may vary in size from 3–4 individuals to 10–15. In an effort to generalize results, 10–15 interviews were attempted. If 10–15 participants could not be achieved, the study would be based on at least five interviews. However, with the low number of five, it would be difficult to generalize results. The completed study concluded with a total of 10 study participants.

Study Site

Study participants were recruited through a large international instructional technology and distance education organization with student members. The organizations research protocol was used. Nontraditional distance education students selected for study participation were provided instructions regarding the purpose and use, means, time commitments, and timeframes of the study. The study was conducted virtually through internet conferencing. Specifically, Zoom conferencing was the tool of choice. Through the use of Zoom, study participants received a conference link and remained anonymous if they chose. Additionally, the Zoom conferencing tool had the ability to record interviews for transcription and further analysis.

It was planned that initial and follow up interviews would use the web conferencing tool. However, follow up interview questions and responses through email was also an option. Initial interviews were conducted through web conferencing over a 2-week time period. Follow up interviews were to occur over a consecutive 2-week time period with 1 week in between to analyze initial data.

Data Collection

Data collection overview. Throughout the study, the implementation of semi-structured interviews was the foundation of data collection. Interviews were planned in such a way to place participants at ease. As noted by Moustakas (1994), "often the phenomenological interview begins with a social conversation or a brief meditative activity aimed at creating a relaxed and trusting atmosphere" (p. 113). The initial conversation should engage the participant in such a way that reassure interest in what they have to say and any personal experiences with the topic (Rubin, 2012). A relaxed and trusting atmosphere is critical when presenting participants with opened ended questions that require elaboration. If participants are not relaxed during their interview, there is a risk that collected data will not be thorough and/or useful.

Interviews were recorded and notes were taken as a backup to recorded interviews. Prior to the recorded interview, participants were provided with an informed consent form for study participation and notification of recording of the initial and the follow-up interview. However, during the actual interview, recording started once initial social conversation was completed and the participant notified.

Data collection tools. Data required for each aspect of the study were collected using two formal data collection instruments. The first instrument was the invitation

notice for study participants. The invitation was presented by distance education associations with student members based on their research protocol. The invitation contained a description of the study, participation criteria, participation confirmation, and researcher contact information. The invitation was used to prescreen participants to ensure all participants met the study's criteria.

Data collection method. Initial data collection occurred through the use of semi-structured one-on-one interviews. Through the use of these interviews, the second data collection instrument was presented, the study's interview questions. During each semi-structured interview, participants were presented with open ended research questions. Initial broad questions were (a) What was your experience with the use of autonomy support measures in your online classes? and (b) How have autonomy supportive actions impacted your online course experiences? Prior to asking the initial questions, examples of autonomy support measures were provided to participants. Sub-questions included (a) Describe how you were provided with choice among assignments within a distance education course, (b) How has choice within a distance education course impacted your course success, (c) Describe how a course or assignment's rationale was presented in your distance education course, (d) Explain how being presented with assignment rationales impacted your course success, and (e) Explain welcoming actions presented by an instructor within your distance education course. However, as participants responded to each open question, deviation was allowed to elicit new questions and explore new ideas presented by each participant. Conducting the initial interviews using this method allowed the discovery of new ideas related to autonomy supportive actions which previously may not have been considered.

Analysis of data conducted during initial semi-structured interviews may have elicited new questions to be asked in semi-structured follow-up interviews. Follow-up interviews used the same strategies to obtain participant responses. However, questions were associated with answers provided to initial interview questions.

Procedures

Upon obtaining Institutional Review Board (IRB) approval, the study was conducted based on established phenomenological research procedures. Under the broad research phases of preparing to collect data, collecting data, organizing, analyzing, and synthesizing data, and summarizing and determining outcomes and implications, Moustakas (1994) added specific components needed to conduct valid phenomenological research.

Phenomenological researchers, just as with most qualitative studies, collect data using some form of participant interview. However, key procedural steps that are unique to phenomenological studies are the use of Epoche (Husserl & Gibson, 1962) to set aside the researcher's personal experiences and views of the phenomenon during data collection and the use of two broad questions to initiate the interview. Epoche is a Greek word meaning to refrain from judgment, to abstain from or stay away from the everyday, ordinary way of perceiving things (Moustakas, 1994). As research is conducted, the investigator must take a fresh perspective toward the phenomenon that will be investigated (Creswell, 2013). To achieve Epoche, the investigator must describe their experiences with the phenomenon and bracket out their view to keep them separate from study views. Once Epoche is achieved there is still the risk that the researcher's views may be included in the study's findings by way of data interpretation (Creswell, 2013).

As a result, special care must be taken in all aspects of the study.

When implementing phenomenological research, interviews are started with two broad questions which may elicit further questions (Moustakas, 1994). Interview questions are framed around the phenomenon and participant experience with the phenomenon. Additional questions or prompts flowed from initial answers participants provide to each question. As a result, research data is obtained based on participant experience.

Procedural steps. During the implementation of IRB approved research procedures, the steps that follow were used to examine the phenomenon of autonomy supportive teaching actions with nontraditional distance education:

1. Submitted application for research study to the identified distance education organization
2. Upon acceptance, submitted research invitation to potential study participants
3. Identified research participants from accepted study invitations
4. Obtained participant consent through a prepared informed consent form
5. Scheduled interviews and distributed interview schedules to participants
6. In parallel with the aforementioned steps, Epoche was applied to ensure preconceived views of the research problem were not imposed when conducting data collection.
    a. Reflected on personal perceptions of the study and bracketed these perceptions
7. Implemented initial semi-structured interviews
    a. Initiated pre-interview conversation to put each participant at ease

   b. Informed participants when recording of the interview began
   c. Asked prepared interview questions, rewording any question that was not be clear to the participant, and allowed the participant to elaborate as needed without interrupting
   d. After each question, asked any needed follow up questions as a result of participant responses.
8. Transcribed notes from initial semi-structured interviews
9. Reviewed data from initial interviews to determine needed follow-up questions.
   a. Reviewed bracketing of personal perceptions of the phenomenon to ensure personal perceptions did not influence data review
10. Contacted participants as needed for follow-up interviews
11. Conducted follow-up interviews: Web conferencing or email
12. Reviewed and analyzed data
   a. Reviewed bracketing of personal perceptions of the phenomenon to ensure personal perceptions did not influence data review

Interview protocol. The primary type of data collection for the study was semi-structured participant interviews. The two broad interview questions guided the direction of all interviews. As a result, it was essential that appropriate conversational guides were crafted. Rubin (2012) states that "conversational guides—protocols, jottings, question matrices/checklists, or outlines—remind you of what main questions to ask and of whom you want to ask them. Sometimes the guides include possible follow-up questions" (p. 125). For this study conversational guides included potential follow up questions based

on potential directions of participant responses.

The conversational guide was the basis of the interview protocol. According to recommendations by Jacob and Furguson (2012), the interview protocol should ensure questions are grounded in research, a script is used to begin and end the interview, questions are open ended, interviews start with basic information and then implement questions guided by the topic's literature, start with easy questions and then move to more difficult questions, implement the phrase, "Tell me about," use expansive questions and prompts, limit time for the interviews, practice of interviewing before participant interviews, and include flexibility and willingness to change the protocol as needed by the participant.

Initial prompts were written as scripts that initiated informal conversation prior to the study interview questions. Additionally, follow up questions based on potential responses and closing conversation topics, and scripted closing statements were documented and submitted for IRB approval.

Data Analysis

Data analysis included reviewing of transcripts and recordings to "highlight significant statements, sentences, or quotes that provide an understanding of how the participants experienced the phenomenon" (Creswell, 2013, p. 82). These statements formed the basis of participant experiences and settings. Commonalities amongst participants were identified to obtain the essence of the phenomenon (Creswell, 2013). Initially, to assist with this, it was planned to use qualitative data analysis software such as QDA Miner, Weft QDA, or NVivo in order to organize, trend, and extrapolate data. However, it was determined that due to the study's population size, the use of these tools

was not necessary.

Specifically, common autonomy supportive actions or course design features were identified and categorized. Additionally, student perceptions and course achievement were correlated with the identified and categorized actions and design features. By completing these actions, research questions were answered and study conclusions were drawn.

Ethical Considerations

Throughout the phenomenological study, care was taken to ensure ethical safeguards were implemented. Participants were informed of the nature of the research, methods used, timeframes and how research data was to be used prior to their participation. Participants provided their informed consent to participate in the study. Additionally, any recordings were made only with participant consent before the recording is initiated. Confidentiality of participants was also ensured. Study data was not shared with participant identifiers. Interview responses were coded to remove specific user identifications data. The aforementioned safeguards protected participants and ensured their privacy.

Trustworthiness

When compared with a quantitative study, the implementation of a qualitative study differs in the usage of validity and reliability. According to Creswell (2012), validity refers to an instrument's ability to test what it was intended to test, while reliability refers to consistency of results. When conducting a quantitative study, validity and reliability are essential. However, qualitative studies, such as this study's phenomenological inquiry, rely on credibility authenticity, transferability, dependability

and confirmability (Lincoln and Guba, as cited by Creswell, 2013).

As a result, it was the goal of this study to ensure the aforementioned to insure results can be confirmed with additional studies and a catalyst for additional research. Throughout the study there was a resolve to ensure conclusions regarding autonomy supportive actions with nontraditional distance education students were credible, authentic, transferable, dependable, and confirmable. In order to accomplish these goals, study procedures were stringently adhered to and confirmed before moving to the next procedure step. Additionally, results were verified before drawing study conclusions.

Potential Research Bias

During the preparation and implementation of the study, there was an earnest effort to avoid personal assumptions and opinions concerning the phenomenon. As a past traditional education and current distance education instructor, the researcher has experience teaching in a distance education environment and has implemented variants of autonomy supportive actions without prior knowledge. Implementation of these actions proved successful and popular with students. However, these personal experiences have not and were not be used as the foundation of the study's questions, data analysis, or conclusions.

Limitations

The ability to generalize research findings were limited due to the study's potential sample size. The goal was to obtain 10–15 study participants. With a broader sample size, it was possible that results would be more generalized. Additionally, the study relied heavily on participant experiences, which in turn relied on a clear recollection of instructor actions and course features. If students refer to course

experiences that have occurred in the past, it is a chance that participant memories may have faded. As a result, it was concluded that both a larger sample size and a requirement to be currently enrolled in a course or enrolled no more than a year prior would lead to more accurate results.

Chapter 4: Findings

Participants

Study participants were recruited through a large international distance learning and instructional technology organization. During a 30-day time period, study participants were recruited using the organization's research initiative. The research initiative allowed members of the organization to submit a research proposal to the organization's board of directors. Upon approval, the organization assists in recruiting participants by posting the study on their web site and mass emailing the recruitment notice to their membership body.

Over a 2-week time period, 29 participants agreed to participate in the research study. Upon acceptance of initial participation consent through the organization, participants were provided a link to a scheduling application where they could view the primary investigator's calendar and schedule their interview at available times. Once a participant scheduled an interview time, the primary investigator was auto-notified of the booked appointment via email. Most interviews occurred during the first week of the study. At the beginning of the second week of the study, the primary investigator sent a reminder email for those that had volunteered to participate, but had not scheduled an interview time. As a result of the reminder email, four additional interviews were scheduled for the same week. Additionally, as a result of the reminder, there were responses from volunteer participants who had scheduling conflicts or determined after re-reviewing the criteria, that they did not meet participation qualifications.

Once interviews commenced, 2 of the 29 volunteers were determined to be ineligible. Of the remaining volunteers, 12 recruits scheduled interview times and

returned the study's informed consent form. Of the 12 volunteer participants, 10 participated in their scheduled interview. There were two no-shows. Interviews were expected to last no longer than 30 minutes. However, interview times were scheduled for 45 minutes to allow time to address any technical issues with the web conferencing software or the participants' computers. The actual times for interview completion ranged from 20 to 30 minutes, depending on the amount of detail participants provided in their responses.

At the start of each semi-structured interview session, rapport was established while discussing each participant's characteristics as nontraditional online students. The initial conversation also resulted in descriptive data of each participant in regards to identifiers as a nontraditional student. Student levels ranged from students who were undergraduate online students to current and past graduate students at the master's and doctoral level. Participants included nine females and one male. All participants met the study criteria of working full-time, currently taking an online college course or had taken one within the last year, and having family responsibilities. Prior to asking the two designated study questions, an interview protocol was followed. The protocol included an explanation of the study and autonomy supportive actions that participants used as a frame of reference when answering interview questions (see Appendix A). Participant questions about autonomy support were answered prior to the initiation of targeted questions.

Participant experiences with autonomy support in their online courses varied vastly. This was reflected in the diversity of the design and implementation of participant online programs. Program delivery types were a mixture of asynchronous, where the

instructor only served as a facilitator with a self-paced structure, synchronous, which required live sessions, blended, with portions of the online course being synchronous and other portions asynchronous, and hybrid programs where participants were expected to take a portion of the course online and other portions in an actual classroom. No matter what the distance education delivery type, each participant's experience fell within the definition of distance education, "institution-based, formal education where the learning group is separated and where interactive telecommunications systems are used to connect learners, resources, and instructors" (Schlosser & Simonson, 2010, p. 1).

Interviews

During phenomenological research, subjects are presented with a limited number of broad questions dealing with their experience with a certain phenomenon. For this study, there were two broad questions, (a) What was your experience with the use of autonomy support measures in your online classes? and (b) How have autonomy supportive actions impacted your online course experiences? Participants were interviewed using an online web conferencing tool. Prior to each interview, researcher Epoche (Moustakas, 1994) statements were reviewed to ensure researcher experiences and opinions would not taint the researcher's responses to interview questions.

When responding to questions, participants were encouraged to speak as long as they felt comfortable sharing their experiences. They were also encouraged to provide examples which supported their responses. While each participant answered interview questions, notes were taken when the participant added information that was particularly profound or if a statement was stated with a certain emotion behind it. Due to the rapport and comfort level that was established between each participant and the primary

investigator, all participants were very willing to share their experiences in detail, both positive and negative. Participant interviews were recorded and then transcribed and reviewed over a 2-week period. Transcribed interview questions and individual participant responses are in Appendix B.

The initial review of each interview sought to determine gaps in information that required a follow-up session. Of the 10 interviews conducted, none required follow up interviews. Once this was determined, study participants were provided a notice of study participation completion and a $10 retail gift card by email. There were a few participants who stated that because of the study topic, they would have participated in the interview without the gift card for participation. Their incentive was that they were eager to help with adding to the field's body of knowledge.

Data Analysis

According to Creswell (2013), there are six steps that must be followed when analyzing phenomenological research data: (a) describe personal experiences with the study's phenomenon, Epoche (b) develop a list of significant statements made by study participants, (c) group significant statements into larger units of information, themes, (d) write a description of "what" participants experienced using verbatim example, textural description, (e) write a description of "how" the experience happened, structural experience, and (f) write a composite description of the phenomenon incorporating both the textural and structural description, the essence.

Epoche. Following Creswell's (2013) steps, once all interviews were transcribed, previously developed statements of researcher Epoche (Moustakas, 1994) were again reviewed. There were three statements based on the researcher's prior experience that

were bracketed so that study data would not be influenced. Statements included (a) providing rationales and relevance are important considerations when developing all learning materials, (b) student personalization causes confusion and lack of structure within a course, and (c) autonomy support has the same positive impact on nontraditional students as with all students. These statements were referred to at various points during the study to ensure the researcher focused on each participant's views only.

Development of significant statements. All transcripts were compiled into one document, separated by each labeled participant's answer to each research question (see Appendix B). During reviews of the compiled transcript document, significant statements made by each participant were identified. Additionally, notes that were taken during each participant's interview were reviewed to determine if there were specific areas of the interview that needed to be closely scrutinized. If there was an area of an interview that needed to be revisited within the transcript, an additional review was completed, and new statements were identified as needed. As a result, transcriptions were reviewed numerous times to ensure all impactful statements were recognized.

Of the 10 research participant interviews, all resulted in significant statements that were used during data analysis. Depending on the amount of detail provided by a participant, the number of significant statements made by a specific participant varied. Additionally, there were several statements that were made that generated considerations that the researcher had not considered, but were pertinent to the study's audience, nontraditional distance education students.

Coding categories. In order to organize statements for comparison and contrasting, codes and code definitions were determined. Significant statements were

categorized by codes. Table 1, depicts the study's code categories and code category descriptors. Category names were (a) patience, (b) welcoming environment, (c) acknowledgement of negative expressions, (d) rationale, (e) personalization, (f) choice, (g) flexibility, and (h) structure/actions that respect time. All coding categories, except for structure/actions that respect time, were all previously identified as general and online specific autonomy supportive teaching actions.

Table 1

Coding Categories and Descriptions: Using Autonomy Supportive Teaching With Nontraditional Distance Learners

Coding categories	Category descriptions
Patience	understanding a student's situation, extra help, feedback and corrections, explanatory feedback, firm in expectations but willing to work with the students
Welcoming environment	community building, availability, constant communication, encouragement, accommodating course structure, responsiveness, supportive of family/career, eagerness/enthusiasm
Acknowledgement of negative expressions	understanding frustration and providing assistance
Rationale	relevance to future use, relevance to current use
Personalization	Use of personal experiences in assignments, use of materials that were of personal interest
Choice	choice of topics within a structure, choice of format
Flexibility	working ahead, adjusting due dates due to situation, working at will
Structure/actions that respect time	short meetings, condensed schedules, allowance to work independently based on schedule, multiple means of contact and availability, well-paced activities, appropriately timed activities, access to all course materials

The category of patience is represented by a participant's experience with an instructor, who understands the participant's personal situation and takes actions to

promote student success while working within the situation. This includes an instructor's action of being firm with course requirements, but being willing to work with the student. Additionally, patience is also reflected by an instructor's willingness to provide students help and allow submission of assignments for feedback and resubmission.

A welcoming environment includes participant experiences that promote community building amongst the class, availability of the instructor to students, providing student encouragement, support of a student's family or work situation, and instructor eagerness and enthusiasm towards the class or course topic. Additionally, within the online environment, the welcoming environment category includes the creation of an accommodating course structure and/or organized presentation of materials.

Acknowledgment of student expressions is described by an instructor's willingness to acknowledge when students have negative feelings or reactions to learning activities. In acknowledging negative expression, the instructor responds to the student in a way that validates their expression, while at the same time motivating the student to completion.

The rationale category includes student experiences where course, content, or assignments were presented with rationales of the importance of the particular topic, course, or learning activity. Additionally, instructor actions related to how topics were relevant to the student are included. This includes the connection between topics and job or career application.

Personalization is the allowance of a student's personal experiences in assignments. This also includes the participant's experience with course materials that are

of personal interest. Within their course, this category also includes when students are given the ability to explore areas of interest within the structure of a course's goals and objectives.

The coding category, choice, includes participant experiences where they were allowed to choose from topics of study or individual assignment deliverables or formats. Within the course, specific structure was provided, which allowed students the ability to choose from a given selection.

Flexibility includes study participants' online class experiences where class members were allows to work ahead of the official class schedule. This includes early submission of assignments. Conversely, this also includes being allowed to submit assignments beyond the official due date when needed. Self- pacing also falls within the flexibility coding category. Self-pacing is the student's ability to work on a course's learning activities at will, within the confines of the courses schedule.

The final coding category, structure/actions that respect time is not one of the previously identified general and online specific autonomy supportive course actions. However, upon review of participant transcripts, a trend of experiences involving respect of student time, both positive and negative, was identified. Often, these experiences were related to the student's nontraditional student status. The category encompasses experiences where asynchronous course meeting times were monitored, schedules were condensed, or students were allowed to work independently based on a schedule they provide to their instructor. Additionally, means and time to contact instructors were varied to accommodate student needs. Within the course structure, activities are well-paced, appropriately timed and all materials for the entire course were accessible to

students throughout the course.

The aforementioned code categories provided a structure for data organization. Each code category's significant statements were color coded for ease of identification. Color coding helped organize data for quick reference to the type of code and code definition. Once data was organized under each of these codes, the next phase of phenomenological data analysis commenced, grouping of categories to create themes.

Themes. Data themes were determined by analyzing all coding categories and coding category descriptors to determine commonalities amongst codes. Once commonalities were identified, codes were grouped together under a common theme (see Table 2). Theme titles were determined based on the most significant commonality found within each code category description. Three data themes were determined: (a) Support, (b) Personal Relevance, and (c) Time.

Support includes coding categories of patience, welcoming environment, and acknowledgement of negative expression. Commonalties determined for each Support theme code entailed experiences where students felt supported emotionally and encouraged by instructor and peers.

Personal Relevance included coding categories, rational, personalization, and choice. Commonalities derived between these code categories include experiences where participants were able to make personal connections between what was being taught and life in their current or future career area or cognitive preferences or interests.

The data theme, Time, includes coding categories, flexibility and structure, and actions that respect a student's time. Experiences that fall under this theme were those that spoke to the ability of a student to fit or not fit learning into their personal schedule

or situation based on course actions.

Table 2

Data Themes, Coding Categories, and Category Descriptions: Using Autonomy Supportive Teaching With Nontraditional Distance Learners

Data themes	Coding categories	Category descriptions
Support	Patience	understanding a student's situation, extra help, feedback and corrections, explanatory feedback, firm in expectations but willing to work with the students
	Welcoming environment	community building, availability, constant communication, encouragement, accommodating course structure, responsiveness, supportive of family, eagerness/enthusiasm
	Acknowledgment of negative expressions	understanding frustration and providing assistance
Personal relevance	Rationale	relevance to future use, relevance to current use
	Personalization	Use of personal experiences in assignments, use of materials that were of personal interest
	Choice	choice of topics within a structure, choice of format
Time	Flexibility	working ahead, adjusting due dates due to situation, working at will
	Structure/actions that respect time	short meetings, condensed schedules, allowance to work independently based on schedule, multiple means of contact and availability, well-paced activities, appropriately timed activities, access to all course materials

These three themes provide the overall umbrella of all study experiences. By examining what and how participants experienced these themes within the auspices of autonomy supportive teaching with nontraditional distance education students, the essence of these student's experiences can be extrapolated.

Thematic Experiences

Within the study's themes, participant interview transcripts were used as evidence of implementation or lack thereof of each theme. All code categories within each theme were treated equality. However, a tally of significant statements associated with each code was derived. The count was taken as a result of numbering that occurred in order to confirm that a particular statement was not redundant or an extension of a previously made statement (see Table 3). The tally of the statements made within the Time theme were significant due to the fact that all items in the coding category were not associated with previously identified autonomy supportive instructional actions. Specifically the respect of time code is a newly identified area, which was repeated throughout participant interviews. Other than the welcoming environment coding category, which included 23 significant statements, structure/actions that respect time, had the second highest number of significant statements with 19 statements.

Based on participant responses, study themes are ranked as follows. Time is noted as the theme with the most significant participant statements, accounting for 48%. The Support theme came in second with 39%, while the Personal Relevance theme had 13% of identified personal statements.

Support theme. The Support theme includes participant experiences in the areas of patience, welcoming environment, and acknowledgement of negative expression. Examples of a welcoming environment were extensive in participant responses. Actions that helped build a community among class members were prevalent. These generally came in the form of student and faculty member introductory activities. Participant 5 stated,

> One of the classes I took in May, a very simple act that an instructor did… of course they asked us to introduce ourselves, something that made us more engaged. They asked us to write three things, with one thing not true. Example, I am American, I have three kids, I have a dog. So we have to kind of guess. It's a little silly, but at the end it was quite interesting. We kind of knew people quite well at the end of the course.

Table 3

Count of Coding Categories: Using Autonomy Supportive Teaching With Nontraditional Distance Learners

Coding categories	Category count	Theme	Total theme count
Patience	9	Support	34
Welcoming environment	23		
Acknowledgement of negative expressions	2		
Rationale	6	Personal Relevance	11
Personalization	5		
Choice	6		
Flexibility	16	Time	41
Structure/actions that respect time	19		

This statement dovetails with the example provided by Participant 10, "They would try to make that first assignment and that first synchronous meeting about building an online community; getting us to get to know each other" and Participant 14,

> In all of my courses I was very fortunate to have eager instructors. Actually, at the

> beginning of each course, on Day 1, we were supposed to post a video of ourselves based on the topic given; for instance share your hobby or talk about your country and post a picture.

These described actions were initiated at the beginning of the identified participant's courses and were reinforced throughout the course's time frame. However, Participant 17 stated, "as far as creating a welcoming the environment, it depended on the instructor. Some did a good job and did some type of here's the syllabus welcome, everyone post a little bit about themselves." As a result, while introductory activities were prevalent, on occasion participants would encounter instructors who were not consistent with this strategy.

Welcoming environment also includes experiences where an instructor was responsive and available to students using multiple means. Participants 10, 5, and 7 were in agreement that their instructors were responsive when contacted, with one describing their access to forum area where questions could be asked. Participant 10 explained, "One of the things that really was helpful was our professors made themselves very available," while Participant 5 repeated that the same behavior was witnessed, "Pretty much most of our courses, the instructor's responded." Participant 7 explained,

> In both courses, both instructors were very responsive. They responded right away. They gave you information about themselves, so you would feel you were dealing with real people. There was a space where we could go and ask questions. So what they did, they would immediately get back to us fairly quickly and give us additional steps or repeat the steps in a way that we could understand them.

Within the theme of Support, study participants also referenced examples of

instructor patience. When examining experiences of patience, participants often referenced specific ways in which their instructor tried to work with their individual situation. Participant 2 experienced this first hand during a particular family situation which was impactful to her course. “It ended up my father passed away a few days before my baby was born. The professors were very helpful and patient with letting me continue and additional time to complete. I ended up completing everything on time because I was able to do it at my own pace.” Participant 10 had the same experience with instructors having patience with a student’s personal situation.

> They set deadlines and tried very much to hold us to them. However, if we went to them and said, my kids sick, I have a work crisis. If you were proactive in addressing any type of barrier to participation, they were very understanding and bent those deadlines without a whole lot of trouble, if essentially you weren’t blowing them off carelessly.

Even when students did not face a personal family issue, study participants continued to receive instructor supportive actions. Participant 10 also stated, “They showed enormous patience and tried to assist all of those folks that needed some extra support and encouraged us to support each other as well.” Encouraging behavior was also mentioned by Participant 14 when describing discussion board interactions, “The instructor didn’t say we were wrong or right. So the instructor posted encouraging comments only helping us to think further or read further. But not saying we were wrong or right.”

> Additionally in the area of support, the ability to submit, receive feedback, and resubmit was critical. Participant 29 stated, “I contacted the instructors about the

> feedback I had received on a couple of assignments because I thought I had hit the nail on the head. I thought I did pretty well. Based on the feedback that I got from him, it wasn't what I thought. It wasn't the grade that I expected. And he did. It's helping me to consider the next assignment, in other words, the assignment that I am currently working on."

Being able to resubmit after feedback was an experience that seemed to be impactful to students even though it is time consuming to instructors. Participant 5 stated,

> One thing, showing patience with self-paced instruction was key. We did a group assignment. Yeah that was a mess. We missed the whole point for the project. The instructor was very nice and said you didn't do it right at all, so I am going to let you do it again. I just want you to go fix it. I think the patience and not just giving us a 0. That helps us a lot.

Also as reflected by Participant 11, the patience of re-reviewing an assignment for a new grade was a way to send a message of student support.

> If we completed them in enough time, she would review them and provide comments as many times as necessary until we got it right. I guess that falls into the category of patience. She was just so patient. If we would meet her more than half way, she would certainly meet us there and then some.

Even with showing patience, participants remained responsible for course requirements. However, the instructor continued to encourage students and press them to successfully complete assignments. As an example, Participant 27 stated,

> She said the work still had to be done. She was firm. She understood, but gave us allowances that it was just two of us creating this relational database, which was

> huge. We still had to complete the assignment. She encouraged us, but we still had to complete all the work.

Participant 27 added, “But I had good instructors that knew how to keep me motivated. They were always pushing us to do the best that we could do.” In addition to encouragement, Participant 11 also added the addition of activities that students could look forward to as impactful to completing the course. Participant 11 described,

> Had it not been for this professor’s encouragement and fun little games and stressing how it could be used later, I don’t know what would have happened. In addition, the environment was not only encouraging, but also engaging. There was a chance that students would want to complete the course.

As noted by Participant 18, “The course was very, very engaged. I didn’t have to take the course. However, I was always looking for free time to go back to my course.”

Additionally, within the Support theme, the area of course structure that contributed to a welcoming environment was addressed. Participant 2 described the impact of this action with several points. Participant 2 explained,

> I think structure and planning for their course. The more information they gave from the start, the more we were able to plan.
>
> I think a lot of times, the way the instructor formatted the course helped us become more autonomous. They often made it clear in introductory videos, they made the class more welcoming and make it so that we know that we could contact them if we had a situation come up. Because of the fact that they planned it out so well with a clear structure, they made it very well organized for us.

Course organization experiences were described as impactful to some students’

experiences.

The final area of the Support theme is the area of expressions of negative effect. This area was the least identified significant statement. However, for the student who described their experience, it was impactful. Participant 7 said,

> Some of us complained about it….to the expression of negative effect. Complained about how convoluted it seemed to go through these multiple steps to get it uploaded. The instructors had graduate students in there to help and so they had to respond to our complaints and said they understood and you know those types of thing. That was helpful.

The idea of helping the student as evidenced by experiences with the Support theme was a consistent strand that overall had a positive impact. When support was not provided, participants would rally as a class to support each other. Participant 11 indicated,

> I would always try to point how we were going to use it later and why it was important, even though we weren't supported by our instructor. If it was an important thing that we needed to learn about and we needed to get through it and help each other. We all just kind of rallied around each other to get it done.

Within the theme of personal relevance, choice was a frequent experience. In the area of choice, students able to make a selection of topic or format within the confines of assignment requirements. Participant 7 stated, "You could choose the type of data that you wanted to study, so that at the end you would have something that you could actually use in your particular environment." Participant 29's experience in the area of choice was similar, "the fact that students can select the assignments, meaning that there are three trigger questions that he poses for the reflection journal." Additionally, Participant 17

described the same option, **“**Selecting assignments based on preference were based on us being allowed to select our topic. Not assignments but topics.” The action of having choice was not only in standard course assignments, participants also experienced this option in major projects and discussion forums. Participant 14 explained the role of choice within a course project:

> There were some assignments where there was flexibility. They mentioned on the syllabus that we would be familiar with all presentation tools. However, we were able to select the tool of our choice. If we didn’t actually have the tool, we could write a paper about it.

With discussion forums, Participant 5 stated, “The other one, providing choices for us to do our assignments, we actually in some of our discussions were provided three questions and allowed to choose one that we can discuss. That gives us choice.”

Continuing with the theme of personal relevance, the action of providing course, assignment, or topic rationale was experienced by study participants. Participant 7 stated that instructors, “Provide rational or the importance of course, assignments… they spent a bunch of time with that.” Participant 27 described, “the instructor stressed the importance of the material and because at that point I wasn’t aware that I had to take the class.” Choice was also described by Participant 10,

> All of the professors had a very strong focus, certainly at the beginning of the course, and most of them throughout the course, tying all the coursework back to job and work specific competencies that the assignment was tied to.

Participant 11explained,

> She always let us know what skill we were developing so that later when we’re

> researching something, we would know how to use it. That really helped put it in perspective. She did a good job with this kind of stuff.

Participant 7 added,

> Both of those were relevant to me because they were providing me with tools to help me on my job. So that helped me with my motivation because they were providing me with tools to use on my job. So relevance of the course helped with motivation.

Participant 10 described the powerful effect of choice within her online program on study,

> The fact that my coursework often dovetailed with my work, it felt like I was hitting two birds with one stone was another very important component. So having a strong connection between the rationale for the course work and again that very real work connection and the possibility of completing my assignment with a very real work related need was very important for me continuing. This was the strongest effect, the strongest reason for me continuing and not giving up.

Within the area of personalization within the theme of personal relevance, study participants shared, how they were able to integrate their personal interests or experiences within their classes. When describing an assignment, Participant 10 stated, “We were allowed to pick the theory and we were allowed to pick the approach to writing up the theory.” Additionally, Participant 7 had the same experience in her course, “So based on your interest, you had to read the article and then you had to respond to other’s posts and provide them with feedback for their work.” Although there was the ability to personalize, study participants were required to stay within the confines of a particular

assignment. Participant 29 described,

> Although it may be tied to a particular subject matter, the student can bring their own experience to the assignment.

She added,

> But it's based on a combination of our personal experiences and based on the reading itself. It not structured where you are answering a set list of questions. You are allowed to bring in your own experiences in the writing assignments and reflection journals.

Finally, continuing with the area of personalization, students described how personalization could also extend to their current or future career interest. According to "Participant 10, "many of us were allowed the option to customize our assignments so that it not only allowed us to do school work, but we could then use it in our jobs as well."

Time theme. The theme of time related to experiences of nontraditional students in online courses was an area of autonomy support that was not initially considered by the researcher. Areas of consideration were those that were previously identified in evidenced based research. However, with nontraditional students, experiences dealing with their time and their ability to manage their online courses were evident. As stated by Participant 2, "I guess allowing personalization by allowing flexibility; that was always the case because you could log on Sunday night or Saturday at 5 am, that was up to you based on the timing of your life." This is similar to a statement made by Participant 17, "That flexibility of being able to take all of the circumstances that could happen and be able to do them anywhere, at a kid's rehearsal, in the car driving somewhere, at lunch

during my job, on the treadmill." Additionally, there were experiences where students could work ahead in order to manage their school, family, and work schedules. This is evidenced by the experiences of Participants 2 and 5. Participant 2 stated, "If we wanted to work on something a little bit ahead of time, they were okay with that. I was able to talk with the professors ahead of time, to work ahead a little bit more to account for that." Participant 5 explained, "We were able to move ahead of our schedule in terms of schedule and handing in our assignment."

In addition to working ahead within class, continuing with the theme of time, students also had experiences or knew of experiences where students worked behind with permission of the instructor. Participant 17 stated, "There were lots of opportunities for students who had medical issues or who fell behind to submit things late, to do those types of things." Additionally Participant 2 described,

> I know that there was a lot of flexibility with for example, we had one student in our cohort was a practicing Jew and could not go to class meetings on Saturdays or with times of the year the student might have difficulty getting work done due to fasting and the inability to complete work at those times.

Furthermore, even with students that may have been advanced within a course, there were experiences where the instructor provided flexibility. As stated by Participant 27,

> As far as how my instructor used autonomy support, he gave me a lot of flexibility. He knew that I knew the materials but he did stress that I did require this for degree completion. There was flexibility but it was also important for me to get all of the content for that assignment.

In an example from a blended class with online and on ground delivery components, Participant 29 described, how having the option of online class components, allowed the ability to have flexibility,

> The instructor I find is allowing the flexibility, which is one of the points you mentioned. The flexibility is important because as working adults, all the students are working in their profession in some aspect. So it does allow flexibility and the personalization because we do have the six sessions on ground and that's where the personalization comes in. We are still able to receive the instruction online.

The ability to complete course activities based on their schedule, was an experience described by study participants. Participant 29 described "Self-pacing is good. You are not tied to a particular timeframe." Additionally, Participant 17 explained, **"**assignments were structured, they were usually due on the weekends. So those of us who were slammed had the opportunity to, on a Saturday or Sunday, work on something that had to be turned in."

Continuing with the flexibility area of the Time theme, study participants were able to submit and resubmit. This area also ties in with the Support theme area of patience. In relation to course quizzes, Participant 18, "They were multiple choice, but if you got it wrong you could keep trying until you got it right". Participant 11 added, "Just the sheer ability of being able to submit and resubmit until we got it right and her working with us until we got it right was really how I got to it." From the statements of these two students, there is value to allowing students to retry activities for a new grade.

Participant experiences with the respect of time, focused on how course or instructor actions respected or did not respect their time as a nontraditional student. The

respect of student time was described as an area that was impactful to participant's ability to complete their online courses. Participant 2 explained, "I was able to consider my own circumstances when having a baby, the fact that I would be missing some time." Participant 11 added,

> As you know it's really hard to find long lengths of time to sit down and really absorb this information. So, it was hard to get the assignments complete. But it did help me to know that I could try it and if I didn't get it right, I could try it again. I would know exactly when I could set time aside. She had a really organized schedule. So, I would set time aside to do that.

Experiences with regard to time also dealt with the pacing of a course. Participant 14, stated, "It was well paced. We had weekly assignments and we had enough time to complete them. There was enough time to complete, but there were discussions where we had to post 3 times within the week." Participant 5 explained, "That helps a lot because it helped us to be focused and helped us to…and complete the courses on time, hopefully." Participant 2 also described,

> Three weeks in there's going to be a project and then a paper and then a big project. If I knew that in the beginning, regardless of if I was able to start on these things it gave me the ability to plan out my time and know if I needed to start something early. I'm going to start on this project weeks before it's due and I will start on another at another time.

If a participant wanted to move forward faster, in some cases these could. Participant 2 described that with her experience, she "felt like anyone could contact the professor to get things to work on and they appreciated that we make sure we completed

things." With discussion boards, Participant 5 explained, "I was able to do my part but had to wait for others to do it, but that was okay, because at least I could get some time. So yeah, I can move ahead."

With the availability of course materials, participants had conflicting experiences within their online courses. Participant 14 explained,

> Some professors would open everything for the entire course. However, some units were opened week by week. Actually, I liked that better (open all) because we were able to see what was in the future and we could just follow it.

Participant 27 provided a good description of how not being able to see the entire course created angst due to the participant's time constraints.

> He did work with me. I would have liked him to [put learning activities up all at once] because if I was off on the weekend I was working on schoolwork. I would have liked to see everything up front so I could work down the list. I don't know why he didn't post it. I requested it, but I don't know why everything wasn't posted at one time. Different professors are different. Some will post it all and some won't. In the back of my mind, I was a little worried, because I didn't know when I would find the time to do them.

As described by participants, synchronous sessions were mostly viewed negatively. Whether there was one of many synchronous sessions, most participants who experienced synchronous sessions described how they felt rushed to fit them in or how they impeded on their already critical time.

Participant 17 stated,

> Usually, there was at least one synchronous session per course, every couple of

> weeks. Tuesday night 8 pm - 10 pm or Thursday night at 6 pm - 8 pm or something along those lines every couple of weeks. Those were manageable for me for the most part because I work during the day. It was just enough time to come home put something in the microwave, get the kid to bed and then sit down in front of the computer.

Participant 2 described at length the impediment of time she experienced with synchronous sessions.

> It can already be boring to sit through a lecture, but to sit through a lecture at your own computer with a lot of distractions at a time that might not be ideal to you can be very frustrating. I think I didn't gain a lot from those experiences. It was frustrating with the timing. I was one of the few people on a different time zone. So that made it even more difficult because the timings of the sessions were based on the university. For most people that worked out well, but for me it did not work out well. Sometimes it felt like wasted time. It was frustrating. Part of the reason for choosing an online program is because you want to be able to get things done at a time that's good for you.

Participant 17 also explained,

> Most of my online courses that I have taken in this program, with the exception of one instructor who seems to really know what he is doing, seem to be moving the face to face online, with the occasional weekly synchronous meeting, where we all showed up and at it often ended up being basically a 2 hour lecture, just as it would have been in a face to face class room, just online.

Additionally, Participant 17 stated,

> So just time management and respecting the fact that we are nontraditional students and we are getting together on a Tuesday at 8 pm going to 10 pm, spread across the county for some of us that's 10 pm at night, while others it was midnight and others it's 6 pm.

There were few positive experiences with synchronous sessions. However, Participant 17 stated, "I had one instructor that was very strong with online instruction, in that he was able to make the time spent synchronous online very valuable and you could tell that he was thinking about it from our perspective." Participant 2 added, "However it's a Saturday course and we have to meet at 8 am, it's not really an online course, and a lot of it does not support autonomy because you are an online student. A lot of professors were good with keeping that in mind.

Nontraditional Online Student Autonomy Supportive Theme Impacts

Instructor impact. Autonomy supportive experiences of nontraditional online students varied across three themes, Support, Personal Relevance, and Time. When describing their experiences with these themes, study participants found the actions within these areas impactful to their ability to persist within their online courses. The majority of experiences described by students dealt with instructor actions, while others dealt with how their courses were structured.

Instructor actions varied by individual instructors. This resulted in a participant's experience being based on the instructor a student was assigned to. As stated by Participant 17, "As far as creating a welcoming the environment, it depended on the instructor. Some did a good job and did some type of here's the syllabus, welcome, everyone post a little bit about themselves." Additionally, Participant 11 explained "some

of my instructional technology courses that were asynchronous, didn't have any autonomy supportive actions whatsoever." Participant 27 also referenced this when speaking about an instructor's decision to open or not open all course materials to students.

Additionally the instructor's training and experience with online delivery or lack thereof, impacted the participant's experience with autonomy supportive actions. Participant 17 also added, "Watching very experienced professionals in the field not use the practices that we discussed or were designing with was probably as informational and useful for me than anything else."

Course structure. The way courses were structured, as far as content layout and availability, learning management system (LMS) functionality, and organization were impactful to participant experiences. As participants stated in previous comments, they were inclined to appreciate having all course units and materials available up front so that they could plan appropriately or work ahead if needed. Additionally, layout and functionally of a course within a particular learning management system contribute to the welcoming environment that contributes to autonomy support. One participant relayed her experience with instructors who were unfamiliar with the functionality of their designated learning management system. Participant 17 stated, "Things that were delivered in Blackboard often got extremely confused since some of the instructors were not fluent in Blackboard, so things were lost and were difficult to find." This describes a problem that is two-fold: Instructor knowledge of the LMS and the layout of the course. Both work against the nontraditional student's ability to complete their course smoothly and efficiently in their limited amount of time.

Phenomenological Essence

All autonomy supportive actions with nontraditional distance education students result in relationships amongst themes. All autonomy supportive themes overlap one another in some aspect of an online course with nontraditional student. The prevalence of the Support theme may be an indicator that the nontraditional student's time will be respected. The respect of time is an indicator within the Time theme. This comes as a result of the flexibility and encouraging actions that are associated with the Support theme. Most of these actions allow the consideration of the student's personal situation and action is taken accordingly. Personal Relevance also overlaps with the theme of Time since by providing opportunities for nontraditional students to personalize learning activities or select activities based on topic or career interest, the student is maximizing their time by producing deliverables that can be used outside of their online class.

As a result, the phenomenon of autonomy supportive actions with nontraditional distance education students results in varied experiences. While it would be ideal for all distance education students to have the same experience, due to the differences amongst schools, delivery types, and individual instructors that is impossible. However, with the understanding of the need for nontraditional student to have respect in the areas of time, need for support, and the need for personal relevance, nontraditional online student's intrinsic motivation can be impacted significantly.

Chapter Summary

Within this chapter, an extensive examination of study data, experiences, and themes were presented. Research implementation was examined, participant interviews dissected, and phenomenological themes identified. Additionally, "what" students

experienced and “how” they experienced these occurrences within the identified themes were detailed.

Data analysis resulted in the themes of Support, Personal Relevance, and Time. While implementation of these themes in support of nontraditional distance education autonomy support varied, all theme areas revolve around the phenomenon essence, Respect of the Nontraditional Student. Most identified actions resulted in positive student impacts in the area of motivation to persist in spite of external life factors.

In conducting the research study, there were three primary research questions that were to be answered. Below are the questions and findings from the research study.

1. Does autonomy supportive teaching actions provide adult learners with competing priorities the flexibility they need in a distance education learning environment? Yes, all study participants stated that autonomy supportive teaching actions allowed flexibility for them as nontraditional students in an online environment.

2. How did instructors implement autonomy supportive teaching actions with nontraditional distance education students? Autonomy supportive teaching actions were implemented in various ways based on the experiences of study participants. Learning activities and teacher actions that involved patience, welcoming environment, acknowledgement of negative expressions, course, topic, assignment rationales, personalization, flexibility, and choice were previously identified autonomy supportive actions that are both general and online specific. However, actions or course structure dealing with the respect of nontraditional student’s time is newly identified as an area which significantly impacts the nontraditional student’s ability to remain intrinsically motivated through autonomy and persist with their courses. Examples of time related

actions are, short meetings, condensed schedules, allowance to work independently based on schedule, multiple means of contact and availability, well-paced activities, appropriately timed activities, and access to all course materials

3. How do Autonomy Supportive teaching strategies impact nontraditional distance education students? Based on the experiences described, nontraditional distance education students are impacted positively by autonomy supportive behaviors. It was concluded that in most cases, these actions help mitigate external stressors that may result in student attrition. During the study, 8 of the 10 interview participants were asked an unplanned question along the lines of whether autonomy supportive actions implemented in their courses helped them to mitigate or ease any external work or family stressors that may keep them from completing their course. Seven participants responded that these actions were helpful in this area. The eighth participant misunderstood the question. Since this was not a planned question, the primary investigator decided not to follow up on the participant's response.

Responses to these questions shed light on the nontraditional distance education student and ways in which their personal autonomy can be supported. In the chapter that follows, relevance, meaning, and study implications are described.

Chapter 5: Discussion

The purpose of this study was to identify the impact of autonomy supportive teaching on nontraditional distance learners. As traditional college students who are under the age of 25 and go to college directly from high school become the minority of college populations, university's must implement strategies to increase motivation and in turn persistence of nontraditional students. In addition to the large increase in the number of nontraditional students, increased by 43% between 2000 to 2009 Chen (2014), colleges have also increased their distance education offerings. Data increasingly reflect trends that graduation rates for nontraditional college students are lower than traditional college students. As Shapiro et al. (2015) have reported, cohorts that started in 2009 had graduation rates of 39.20 % for students above 24, compared to 58.6 % for those who started their program under 24. For online students, Patterson and McFadden (2009) drew a close correlation between being an older online student and student attrition. As a result, universities are faced with two student persistence impactors—nontraditional student external stressors and the intrinsic motivation needed to be a successful online student. Universities must find ways to address these areas inside and outside of the classroom or face decreases in student persistence. This study examines factors within the online classroom that are impactful to students' intrinsic motivation, specifically autonomy supportive actions.

While studies have concluded that autonomy supportive actions are impactful across many areas such as employment, home life and all levels of education, this study specifically addressed impacts to nontraditional students in the online college classroom. Autonomy supportive actions have been identified in the literature as having positive

impacts to on-ground and online college students (Chen & Jang, 2010; Lee et al., 2015; Tze et al., 2014). Within college courses, Tze et al. (2014) found a correlation between student boredom and courses where autonomy supportive actions were not implemented. Within online college courses, Lee et al. (2015) found that autonomy support can be successfully implemented in a distance education environment by following three guidelines, (a) provide choices where students may select assignments based on preference, (b) provide rationale of the importance of the course, content, assignments, and (c) provide opportunities for personalization by allowing flexibility. These results were rooted in Chen and Jang's (2010) findings that there is a relationship between needs support in the online classroom, which includes autonomy support, competency support, and needs satisfaction. It was hypothesized that online learners' self-determination positively predicts learning outcomes. However, the specific impact of these actions with nontraditional online students has not been examined as far as the primary investigator has identified at the time of this study.

Previous studies identified characteristics that were common to nontraditional students. Bush (2010) concluded that nontraditional students require connectivity and continuity during their college experience. Forbus et al. (2010) concluded that nontraditional students benefited more from interactions with faculty and staff when compared to traditional students. Jesnek (2012) found that the structure and technology tools for engagement in online courses need to be such that nontraditional students have a positive student experience. Chen (2014) concluded that nontraditional students appreciated learning activities that required reflective thinking that occurred as a result of the application of self-directed and transformative learning principles. These

characteristics, viewed holistically, create a picture of the nontraditional traditional that requires specific actions to be embraced when addressing this student population.

As a result of this study, specific autonomy supportive actions impactful to nontraditional distance education students were identified. Autonomy supportive actions are grouped based on the themes of support, personal relevance, and time (see Table 4). The theme, Support, includes actions implemented that resulted in online nontraditional students feeling supported emotionally and encouraged by instructor and peers. The theme, Personal Relevance, includes actions where online nontraditional students were able to make personal connections between what was being taught and life in their current or future career area, cognitive preferences, or interests. The theme, Time, includes actions where online nontraditional students were able to fit or not fit learning into their personal schedule or situation based on course actions. These actions form the foundation of the study's phenomenological essence, respect of the nontraditional students need for support, personal relevance, and time. Due to the external stressors faced by nontraditional students, the feeling that they are respected in these areas help mitigate some of the external stressors they may have. As a result, participant experiences point to them being motivated to complete their online courses.

The study's phenomenological essence correlates with the tenets of the study's theoretical perspectives of andragogy and self-determination theory. Within andragogy, (a) adults want to be self-directing, (b) learning occurs as a result of experiences, (c) learners are ready to learn when they must meet their societal obligations or assume new roles, and d) there is a learner need for immediate application of the gained knowledge (Knowles, 1970). Within the study's findings, student experiences included self-pacing,

personalization of assignments and activities, the ability to tie course work with their careers and interests, and the juggling and prioritization of their roles within their family and school responsibilities, to name a few, fall within the tenants of andragogy.

Table 4

Autonomy Supportive Behaviors for Nontraditional Distance Education Students by Themes

Autonomy supportive nontraditional student themes	Autonomy supportive teaching actions behaviors
Support	understanding a student's situation, extra help, feedback and corrections, explanatory feedback, firm in expectations but willing to work with the students
	community building, availability, constant communication, encouragement, accommodating course structure, responsiveness, supportive of family, eagerness/enthusiasm
	understanding frustration and providing assistance
Personal relevance	relevance to future use, relevance to current use
	Use of personal experiences in assignments, use of materials that were of personal interest
	choice of topics within a structure, choice of format
Time	working ahead, adjusting due dates due to situation, working at will
	short meetings, condensed schedules, allowance to work independently based on schedule, multiple means of contact and availability, well-paced activities, appropriately timed activities, access to all course materials

Additionally, these experiences also connect with self-determination theory, in which

autonomy is one of the key components. Within self-determination theory, Deci and Ryan (1985) proposed that all humans are self-motivated in three areas; control of their own behaviors (autonomy), being able to learn and master skills (competence), and having a sense of belonging (connection) (Deci & Ryan, 1985). Within the study's findings, student experiences reflected the need to control their behavior with their interactions with instructors, peers, and within the learning management system, make connections with their instructors and peers, and show competency in what was being taught within their online course. Autonomy was an area where learning activities, interactions, and status within the online course impacted the remaining tenants of connection and competence. The tenants of both andragogy and self-determination theory form the foundation of autonomy supportive actions that impact nontraditional students within online classes.

The study's primary investigator came into the study with statements of Epoche (Moustakas, 1994) that may have been impactful to the design, implementation, and analysis of data, and study conclusions. Statements included (a) providing rationales and relevance are important considerations when developing all learning materials, (b) student personalization causes confusion and lack of structure within a course, (c) autonomy support has the same positive impact on nontraditional students as with all students. Throughout the study, care was taken to ensure that at each stage, these statements were reflected on and were not impactful to the study. Once all data were collected, analyzed, and results determined, each statement of Epoche was reviewed to determine if findings resulted in a confirmation or denial of each statement. Providing rationales and relevance was confirmed by the study's results. The statement that

personalization caused confusion was denied. Participant experiences reflected that this was a positive strategy that could be managed well by a prepared instructor. The statement that autonomy support has the same impact on nontraditional students as traditional students was partially confirmed. This comes as a result of the addition of the Time theme. As a newly identified area, it is unique to the nontraditional student when compared to the traditional students.

Conclusions and Recommendations

As a result of the examination of autonomy supporting teaching on nontraditional distance education students, practitioners within the distance education field need to take a close look at ways to bring consistency amongst distance educator instructor training and course design practices when educating nontraditional students. If consistency is not brought to the field, it is possible that persistence of nontraditional online students will continue to decrease.

Study participants shared that their experiences with autonomy support within their online classes varied from instructor to instructor depending on the instructor's experience with online instruction and/or if they received training in how to teach online. Instructor actions are seen with the themes, of Support and Time. By being trained on and then implementing actions associated with these two themes, instructors will find that student experiences will be more positive, which in turn will result in positive impacts to student persistence.

Course design practices are impacted as a result of the role of certain design decisions that may be impactful to student's experiencing autonomy support within the online classroom. These practices include providing students with choice and

personalization of activities when designing learning activities. Also, making all course materials available throughout the course is helpful for student management of time and self-pacing. This practice can also be addressed by the instructor within the LMS. Additionally, ensuring that there are integrated course, topic, and assignment rationales throughout the course will prove beneficial to students as they attempt to make connections between their course work and their career. Finally, the inclusion of synchronous sessions when designing a course appears to have a negative impact on nontraditional students within an online course. As a result, this practice should be limited. If used, instructors should be cognizant of the needs of nontraditional students in the area of respecting their time.

By addressing these areas consistently, nontraditional students will have stable experiences that correlate with their needs, especially time. Consequently, traditional students will benefit as well, since many of the identified autonomy supportive actions are also effective for traditional students. Special care needs to be taken when making institutional strategic, instructor, or course design decisions which impact the limited time that's available to nontraditional students. This is an area that study participants discussed frequently and passionately. While the decision to become a student requires a student's time commitment, colleges should be cognizant of practices that negatively impact nontraditional students in this area.

Summary

Study results are profound with the discovery of a new area of impact on autonomy supportive actions with nontraditional online students, respect of time. Study participants were very open and detailed in sharing their experiences and the impacts of

their experiences with autonomy supportive online course actions as nontraditional students. Many nontraditional students enroll in online courses with the expectation that online delivery is the best way for them to manage their courses and their life. Participant 2's statement powerfully reflects this sentiment, "Part of the reason for choosing an online program is because you want to be able to get things done at a time that's good for you." Without consistent actions that support her statement, it is difficult for nontraditional students to make school and life work in parallel. The results of this study reflect that when implemented consistently, autonomy supportive actions are impactful to motivation and persistence of nontraditional distance education students.

Readers should consider that the study was conducted with 10 study participants. Ten is an acceptable participant population when making generalizable conclusions within a phenomenological study. It was the researcher's desire to have a significantly higher number of study participants. It is recommended that additional studies be conducted with a greater population. An additional recommendation for future research is to explore more extensively the impact of the Time theme with nontraditional students. Since this is a previously unidentified autonomy supportive area, diving deeper into further strategies to enhance this area with nontraditional students in the distance education classroom may prove enlightening.

References

Blankson, J., & Kyei-Blankson, L. (2008). Nontraditional students' perception of a blended course: Integrating synchronous online discussion and face-to-face instruction. *Journal of Interactive Learning Research, 19*(3), 421–438.

Burbuagh, B., Drape, T., & Westfall-Rudd, D. (2014). A descriptive account of factors affecting student satisfaction in an online master's degree in agriculture and life sciences. *NACTA Journal, 58*(4), 341–348.

Bush, F. (2010). Meeting the needs of nontraditional college students? Student perspectives on proprietary school practices. Retrieved from http://ir.library.oregonstate.edu/xmlui/handle/1957/19061

Butz, N. T., Stupnisky, R. H., Peterson, E. S., & Majerus, M. M. (2014). Motivation in synchronous hybrid graduate business programs: A self-determination approach to contrasting online and on-campus students. *Journal of Online Learning and Teaching, 10*(2), 211–227.

Chen, J. (2014). Teaching nontraditional adult students: Adult learning theories in practice. *Teaching in Higher Education, 19*(4), 406–418. doi:10.1080/13562517.2013.860101

Chen, K. C., & Jang, S. J. (2010). Motivation in online learning: Testing a model of self-determination theory. *Computers in Human Behavior, 26*, 741–752.

Cheon, S., & Reeve, J. (2015). A classroom-based intervention to help teachers decrease students' amotivation. *Contemporary Educational Psychology, 40*, 99–111.

Choy, S. (2002). *Findings from the condition of education 2002, nontraditional undergraduates.* Alexandria, VA: National Center for Education Statistics.

Collie, R. J., Shapka, J. D., Perry, N. E., & Martin, A. J. (2015). Teachers' psychological functioning in the workplace: exploring the roles of contextual beliefs, need satisfaction, and personal characteristics. *Journal of Educational Psychology*, *108*(6) 788–799. http://dx.doi.org/10.1037/edu0000088

Creswell, J. (2012) *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology, 18*(1), 105–115.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.

Dennen, V. P., Darabi, A. A., & Smith, L. J. (2007). Instructor-learner interaction in online courses: The relative perceived importance of particular instructor actions on performance and satisfaction. *Distance Education, 28*(1), 65–79.

Durksen, T., Chu, M., Ahmad, Z., Radil, A., & Daniels, L. (2016). Motivation in a MOOC: A probabilistic analysis of online learners' basic psychological needs. *Social Psychology of Education: An International Journal, 19,* 241–260.

Entwistle, N. (1997). Introduction: Phenomenography in higher education, *Higher Education Research & Development, 16*(2), 127–134.

Forbus, P., Newbold, J. J., & Mehta, S. S. (2010, October). A study of nontraditional and traditional students in terms of their time management behaviors, stress factors,

and coping strategies. *Allied Academies International Conference: Proceedings of the Academy of Educational Leadership (AEL)*, *15*(2), 67–71.

Furtak, E., & Kunter, M. (2012) Effects of autonomy-supportive teaching on student learning and motivation. *Journal of Experimental Education*, *80(*3), 284–316, doi:10.1080/00220973.2011.573019

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education, 2*(2–3), 87–105.

Gillet, N., Gagné, M., Sauvagère, S., & Fouquereau, E. (2013). The role of supervisor autonomy support, organizational support, and autonomous and controlled motivation in predicting employees' satisfaction and turnover intentions, *European Journal of Work and Organizational Psychology*, *22*(4), 450–460.

Guay, F., Ratelle, C., Larose, S., Vallerand, R., & Vitaro, F. (2013). The number of autonomy-supportive relationships: Are more relationships better for motivation, perceived competence, and achievement? *Contemporary Educational Psychology, 38*(4), 375–382.

Hart, C. (2012). Factors associated with student persistence in an online program of study: A review of the literature. *Journal of Interactive Online Learning.* Retrieved from www.ncolr.org/jiol

Hartnett, M., St. George, A., & Dron, J. (2011). Examining motivation in online distance learning environments: Complex, multifaceted, and situation-dependent. *International Review of Research in Open & Distance Learning*, *12*(6), 20–37.

Hassanein, O. (2015). E-learning instructional design and the mismatch between e-

learners and e-educators' learning styles. *International Journal on ELearning, 14*(1), 5.

Husserl, E., & Gibson, W. R. B. (1962). *Ideas: General introduction to pure phenomenology*. New York, NY: Collier Books.

Jacob, S., & Furgerson, S.P., (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report, 17*(42), 1–10.

Jang, H., Reeve, J., & Deci, E. (2010) Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology, 102*(3), 588–600.

Jesnek, L. M. (2012). Empowering the nontraditional college student and bridging the "digital divide." *Contemporary Issues in Education Research, 5*(1), 1–8.

Jungert, T. Koestner, R. Houlfort, N., & Schattke, K. (2013). Distinguishing source of autonomy support in relation to workers' motivation and self-efficacy. *The Journal of Social Psychology*, *153*(6), 651–666.

Katz, I., & Shahar, B., (2015). What makes a motivating teacher? Teachers' motivation and beliefs as predictors of their autonomy-supportive style. *School Psychology International, 36*(6), 575–588.

Knowles, M. S. (1970). *The modern practice of adult education: Andragogy versus pedagogy*. New York, NY: Association Press.

Kuo, Y., Walker, A., Schroder, K., & Belland, B. (2014). Interaction, internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *Internet and Higher Education, 20*, 35–50.

Lee, E., Pate, J., & Cozart, D. (2015). Autonomy support for online students. *Tech trends*, *59*(4), 54–61.

Liu, D., & Fu, P., (2011). Motivating protégés personal learning in teams: A multilevel investigation of autonomy support and autonomy orientation. *Journal of Applied Psychology*, *96*(6), 1195–1208.

Liu, D., Shu, Z. Wang, L., & Lee, T. (2011). The effects of autonomy and empowerment on employee turnover: Test of a multilevel model in teams. *Journal of Applied Psychology, 96*(6), 1305–1316.

Moore, M. G. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical Principles of Distance Education* (pp. 22–38). New York, NY: Routledge.

Moore, M. G. (Ed.). (2013). *Handbook of distance education*. Mahwah, NJ: Erlbaum.

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications.

National Center for Education Statistics. (n.d.).Nontraditional undergraduates: Definitions and data. Retrieved from https://nces.ed.gov/pubs/web/97578e.asp

Patall, E. A., Cooper, H., & Wynn, S. R. (2010). The effectiveness and relative importance of choice in the classroom. *Journal of Educational Psychology, 102*(4), 896–915. doi:10.1037/a0019545

Patterson, B., & McFadden, C. (2009). Attrition in online and campus degree programs. *Online Journal of Distance Learning Administration*, *12*(2).

Reeve, J., (2009). Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. *Educational Psychologist, 44*(3), 159–175.

Reeve, J., & Jang, H. (2006). What teachers say and do to support students' autonomy during a learning activity. *Journal of Educational Psychology*, *98*(1), 209–218.

Rubin, H. (2012). *Qualitative interviewing* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Schlosser, L. & Simonson, M. (2010). *Distance education: Definition and glossary of terms* (3rd ed.). Bloomington, IN: Association for Educational Communications and Technology.

Shapiro, D., Dundar, A., Wakhungu, P.K., Yuan, X., Nathan, A., & Hwang, Y. (2015). *Completing college: A national view of student attainment rates—fall 2009 cohort (Signature Report No. 10).* National Student Clearinghouse Research Center. Herndon, VA. Retrieved from https://nscresearchcenter.org/signaturereport10/

Shih, S. (2012). The effects of autonomy support versus psychological control and work engagement versus academic burnout on adolescents' use of avoidance strategies. *School Psychology International*, *34*(3), 330–347.

Simonson, M., Smaldino, S., & Zvacek, S. (2015). *Teaching and learning at a distance: Foundations of distance education* (6th ed.). Charlotte, NC: Information Age.

Stefanou, C., Perencevich, K., DiCintio, M., & Turner, J. (2004) Supporting autonomy in the classroom: Ways teachers encourage student decision making and ownership. *Educational Psychologist*, *39*(2), 97–110.

Tze, V. M. C., Klassen, R. M., & Daniels, L. M. (2014). Patterns of boredom and its relationship with perceived autonomy support and engagement. *Contemporary Educational Psychology, 39*(3), 175–187.

Van Loon, A., Ros, A., & Martens, R. (2012), Motivated learning with digital learning

tasks: What about autonomy and structure? *Education Tech Research Dev, 60,* 1015–1032. Association for Educational Communications and Technology.

Wuebker, M., (2013). Adult learners: Improving persistence and performance in online learning environments. *Journal of College Literacy and Learning, 39,* 38.

Appendix A

Interview Protocol

Interview Protocol

For each participant, the inteview protocol below was used using the study's web conferencing tool.

Primary Investigator: [Conversational discussion of how the participant meets study criteria]

Primary Investigator: I want to thank you again for taking time to participate in this study. As a fellow nontraditional student, I totally understand your responsibilities and time constraints. The interview basically has two parts. I will first provide some background information about the research topic and problem. I will then ask you questions related to your experience with the research problem. Recording will start after the introduction of the topic.

Figure 1 was displayed on the screen throughout the implementation of study questions. Participants used this as a frame of reference with answering interview questions.

Autonomy Support Actions

General Autonomy Support Actions (Deci & Ryan, 1985)	Online Specific Autonomy Supportive actions (Lee, Pate, & Cozart, 2015):
• Adopting the student's perspective • Creating a welcoming environment for student thoughts feelings and actions • Providing explanatory rationales • Using non-controlling and informational language • Showing patience with students with self-paced instruction • Acknowledging student expressions of negative affect	• Provide choices where students may select assignments based on preference • Provide rationale of the importance of the course, content, & assignments • Provide opportunities for personalization by allowing flexibility

Figure 1. Autonomy Support Actions: General and Online

Interview Questions

1. What was your experience with the use of autonomy support measures in your online classes?
2. How have autonomy supportive actions impacted your online course experiences?

Appendix B

Transcript of Interviews

Transcript of Interviews

Interview Question 1. Based on autonomy supportive actions, what has been your experience with these types of autonomy support measures in online classes?

Participant 2. If I am looking at these specific things, I can't think of a lot. I think there was more autonomy when I could do assignments when fitting it into my schedules. I don't know if we necessarily had a choice of assignments. Rationale was not necessarily provided, but I understood why courses were important and why assignments were important. I am not sure if that was based on being told that or not. I guess allowing personalization by allowing flexibility; that was always the case because you could log on Sunday night or Saturday at 5 am that was up to you based on the timing of your life.

Well, one example would be last fall when I was in classes, I had a different type of schedule we had two eight week courses, instead of over the 16 weeks. But I was pregnant and due a week or two into the second course. So, I didn't know when that might occur. I don't know…if I was in a normal face to face class and I was expecting a baby a week in, that would have been extremely difficult. I was able to talk with the professors ahead of time, to work ahead a little bit more to account for that. It ended up my father passed away a few days before my baby was born. The professors were very helpful and patient with letting me continue and additional time to complete. I ended up completing everything on time because I was able to do it at my own pace. I was able to consider my own circumstances when having a baby, the fact that I would be missing some time.

I know that there was a lot of flexibility with for example, we had one student in our cohort was a practicing Jew and could not go to class meetings on Saturdays or with

times of the year the student might have difficulty getting work done due to fasting and the inability to complete work at those times. So, we could always… I felt like anyone could contact the professor to get things to work on and they appreciated that we make sure we completed things. So, if we wanted to work on something a little bit ahead of time, they were okay with that. But I think in some ways it's based on circumstances, because if you have students so far ahead, they are not having that collaborative experience. However, they wanted everyone to complete the work. So, if you have a circumstance you let them know and you get that information to them, they can get you the assignments ahead of time.

Participant 5. One of the classes I took in May, a very simple act that an instructor did… of course they asked use to introduce ourselves, something that made us more engaged. They asked us to write three things, with one thing not true. Example, I am American, I have three kids, and I have a dog. So, we have to kind of guess. It's a little silly, but at the end it was quite interesting. We kind of know people quite well at the end of the course. That is something the instructor did for the course. Another thing that the instructor did that was quite supportive, was chopping up the course into small infos, so we would not have one big assignment at the end. Pretty much at the end of that assignment is pacing. We have an eight-week course, we just kind of pace everything we did in the first several weeks together and become one big assignment. That helps a lot because it helped us to be focused and helped us to…and complete the courses on time, hopefully.

At one point I had to travel and I didn't have internet access at all. We were able to move ahead of our schedule in terms of schedule and handing in our assignment. For

the discussions, I could respond to a post, but I had to wait for other people, because no one posted ahead time because there was no reason to. I was able to do my part but had to wait for others to do it, but that was okay, because at least I could get some time. So yeah, I can move ahead.

Participant 7. I think that the welcoming environment… they allowed us to get into Canvas. They used Canvas. They gave you a chance to go in and set up your space. You had to create your own website almost. There were multiple steps to do that and they got you in there to create that so that you had your own space and you created your own link. So, each week when you created your assignment, you sent the link that would lead people to your own space and as you went along you added to that space. So, at the end of the course you had your own mini website with all your materials, all your answers, and all uploads. Some of us complained about it….to the expression of negative effect… complained about how convoluted it seemed to go through these multiple steps to get it uploaded. The instructors had graduate students in there to help and so they had to respond to our complaints and said they understood and you know those types of thing. That was helpful.

There was a space where we could go and ask questions. So what they did, they would immediately get back to us fairly quickly and give us additional steps or repeat the steps in a way that we could understand them. Sometimes, you see the instructions but sometimes you miss a step or misunderstand a step. So, they were there to say, "1, 2, 3, this is how you do it and this is how it should look like." Just providing that additional support and feedback.

I think ...the other thing is that they gave us a choice. The class that I took was educational data analysis. So, they gave us the theories of the various types of data analysis and based it on where you are. So, I was more of an administrator/director at a college, so my interests were different than someone that was an instructional technologist or had a different role. So, you could choose the type of data that you wanted to study. So that at the end you would have something that you could actually use in your particular environment. So, I like the idea of choice.

Providing rational of the importance of course, assignments… they spent a bunch of time with that. Because data analysis has been up and coming and big now, we hear about everything being data driven and evidence based. They really talked about the history of that, the importance of it. They let us know that we would not be expert data analyst from this course, but we would have a good background in data analysis to go forward and perhaps use other resources.

Participant 29. Its interesting right now, the class I am taking is a hybrid. It's a combination of on ground and online. Really, the next couple of weeks is online. So I think out of the 15 weeks that I am taking the class, there are only six that I am taking the class and the rest of the time is online. The instructor I find is allowing the flexibility, which is one of the points you mentioned. The flexibility is important because as working adults, all the students are working in their profession in some aspect. So, it does allow flexibility and the personalization because we do have the six sessions on ground and that's where the personalization comes in. We are still able to receive the instruction online. In addition, with the online instruction, it's kind of what we are doing here with the video and the PowerPoint lectures and also you have reflection journals that are due

based on the reading for the week. It does allow the flexibility and uh… which is a good thing. And the fact that students can select the assignments, meaning that there are three trigger questions that he poses for the reflection journal. But it's based on a combination of our personal experiences and based on the reading itself. It not structured where you are answering a set list of questions. You are allowed to bring in your own experiences in the writing assignments and reflection journals. So, it does consider your background and experience with completing those assignments. Which is a good thing. I think that's it for that one.

Participant 10. Most of courses that I have been in have been very competency based. All of the professors had a very strong focus, certainly at the beginning of the course, and most of them throughout the course, tying all the coursework back to job and work specific competencies that the assignment was tied to. It also helped that the entire course of study was designed around problem based and contextualized learning. For example, four of the semester long courses I took had as their focus designing online learning for online clients. So, we had extremely clear relationships between what we were doing and how this was building our skills toward the goal of becoming instructional designers. We were instructional designing for real people and real situations. So the rational for all of our assignments were extremely clear and connected to real life tasks. Yes, that provided not just motivation because it was real, but for those of us that were working full time, especially for those of us that wanted to get better at our jobs or expand in our jobs, many of us were allowed the option to customize our assignments so that it not only allowed us to do school work, but we could then use it in our jobs as well. So as an example, I was asked to design an online course and what I

chose to design was something that was accepted by a federal funder and I have rolled it out and it has now become part of what the federal government, because I work for a grant project. That is an offering for adult educators across the country. We were often given a broad outline for assignments for lots of the course, and essentially asked how we wanted those assignments to be customized. So for example, we need to research an adult development theory or we needed to research an educational theory in general. We were allowed to pick the theory and we were allowed to pick the approach to writing up the theory. We were given an enormous amount of choice in making an assignment our own. The professors provided guidance in that. One of the things that really was helpful was our professors made themselves very available. I can say over the course of the years, all but one, made themselves very available for questions, by phone, Zoom, email. However, we wished to customize or get feedback. They would reign us in when we were too broad or reign us in when we went too narrow. That takes care of choices and flexibility.

In part, because we were essentially in a program focused on creating online learning skills, all of the instructors were extremely careful to make the first assignment and first synchronous meeting. Almost all courses were blended, with both asynchronous and synchronous component. They would try to make that first assignment and that first synchronous meeting about building an online community. Getting us to get to know each other throughout the course. For all courses, there were a number of collaborative activities where we had to get together with our peers and conduct group projects as part of our assignments. Synchronous work often included some time where we were broken into groups via the meeting tool and had to discuss things within groups and what not. So, creating a sense of online community amongst our peers, and sense of teacher presence in

the asynchronous and synchronous environment was very strong. Our professors were very aware that people in the program began in different technological levels and different backgrounds and came from different fields. We had folks from Aggie extension, we had folks from nursing, and we had folks like me that were online educators. We had educators with little technical background at all, who wanted to get into it. They showed enormous patience and tried to assist all of those folks that needed some extra support and encouraged us to support each other as well.

It's a relatively narrow course of study. There are less than a dozen professors in the course of study…in the courses anyway. They were extremely focused on supporting a wide range of nontraditional adult learners to be successful in online learning. But that was their course of study, so one would think they would.

Participant 11. Well it depends. The most recent online course I took was a quantitative analysis course and it was asynchronous. The instructor was always…she sent emails, and she sent brief video messages that were for encouragement. She would offer games to get us engaged and offer extra credit. She always let us know what skill we were developing so that later when we're researching something, we would know how to use it. That really helped put it in perspective. She did a good job with this kind of stuff. But some of my instructional technology courses that were asynchronous, didn't have any autonomy supportive actions whatsoever. Luckily, I am extremely extrinsically motivated and I was able to persevere. But I heard the rumblings of that from my colleagues of not feeling accepted or supported.

Just persevering and I am kind of a cheer leader. I would always try to point how we were going to use it later and why it was important, even though we weren't

supported by our instructor. But it was an important thing that we needed to learn about and we needed to get through it and help each other. We all just kind of rallied around each other to get it done. [Overcoming lack of autonomy supportive actions]

Participant 14. It was kind of a ridiculous program. It was an eighteen-month master's program. I found that I was able to do all the course requirements. Some of my classmates had a problem. However, some courses had more required assignments. But it was rare. It was under our control. It was well paced. We had weekly assignments and we had enough time to complete them.

There was enough time to complete, but there were discussions where we had to post three times within the week. However, most of us posted every day. So, I don't think that it was a huge burden on anybody because the discussion questions were simple enough, at the same time they were along with the learning process.

Some assignments were papers where we had to follow the given guidelines. However, there were some assignments where there was flexibility. They mentioned on the syllabus that we would be familiar with all presentation tools. However, we were able to select the tool of our choice. If we didn't actually have the tool, we could write a paper about it. So that was an option.

In my case, I did not know how to use these presentation tools. So, each time one come up, I wanted to learn how to use each one. I wanted to know how to use these tools. Most of my classmates knew how to use these tools and as a result, I wanted to keep up with my classmates.

Actually, what was a favorite; in the LMS previous work of alumni was shared. We were able to see wonderful presentations that were made. For those in the class like

me, we tried to learn them like that. Some used Articulate or Captivate. These examples were the motivating factor. We wanted ours to be like theirs.

[Instructor actions] The instructor didn't say we were wrong or right. So, the instructor posted encouraging comments only helping us to think further or read further. But not saying we were wrong or right. However, the way they responded gave us more ideas, and made us exchange more ideas. Sometimes the discussion question went to 100 – 150 responses. It was very good, we enjoyed the discussions. All of us had a collaborative environment where we learned from each other. They didn't say we were wrong or right [Instructor]. We learned a lot from the discussion question. They helped us to exchange ideas and we came up with our own models.

The instructor was well versed in how to define the instruction. The course was in Blackboard for eight weeks and very well laid out and took us step by step from week 1 through week 8. We had different types of assignments for each week. The links…I don't know how to explain it really. I didn't have any problem navigating the course. Some professors would open everything for the entire course. However, some units were opened week by week. Actually, I liked that better (open all) because we were able to see what was in the future and we could just follow it. Also, we would receive reminders by email of assignments that were due. Each week the professor would give an explanation of what would be covered and what reading we would have to do, videos we had to see, and our homework. It was always like this and there was a link to the discussion. So, we were doing the assignments and posting in the discussions. I didn't have any problems.

[Instructor actions] They would say read two chapters of the book; they would give us the pages and they explained with examples. So, as we read, it was easy to follow. Sometimes they summarized the entire lesson, which was a good starting point.

Participant 17. In the program that I am currently finishing up, I can honestly say that there are very few autonomy support actions in most of the courses. Um, because it is a doctoral program almost everything is seminar driven. Most students are expected to come to the table with project or a particular topic and develop it on their own. It may be connected by a particular theme, whether the course is qualitative, quantitative, emerging technologies, that sort of thing. As far as the instructor taking the perspective of the student and designing the course in that manner, I had one instructor that was very strong with online instruction, in that he was able to make the time spent synchronous online very valuable and you could tell that he was thinking about it from our perspective. Not just time and the way the class was being delivered, but also having useful activities during those synchronous activities. So just time management and respecting the fact that we are nontraditional students and we are getting together on a Tuesday at 8 pm going to 10 pm, spread across the country. For some of us that's 10 pm at night, while others it was midnight and others it's 6 pm. So, experiencing the kind of actions you are talking about was mostly channeled across a few specific courses and it was mostly about respecting your time.

As far as rationales expressing the importance of the course, I don't know that I have experienced that at all. The expectation was that if you were enrolled in this program that you already understand or accept the importance regardless. Selecting assignments based on preference were based on us being allowed to select our topic, not

assignments but topics. With most of the courses there was a paper submission at the end. With personalization I suppose it could be the same way. But as far as the general autonomy supportive actions, most of the instructors have been very patient. There were lots of opportunities for students who had medical issues or who fell behind to submit things late to do those types of things; the same way that they would have been able to in a regular classroom. I don't know if there has been any difference given the online component. But most of my online courses that I have taken in this program, with the exception of one instructor who seems to really know what he is doing, seem to be moving the face to face online, with the occasional weekly synchronous meeting, where we all showed up and at it often ended up being basically a two hour lecture, just as it would have been in a face to face class room, just online.

The school itself uses Blackboard. However, since because the department I was working with is through the Learning Technology, College of Information Sciences, we had a number of professors use whatever Learning Management System they felt like. So there were times some would use Schoology, some would use Canvas, or we might use something else not provided by the university. Sometime we knew that before the classes started, sometimes we just got an email telling us where to go. However, all of them were delivered in Blackboard, Canvas, and Schoology. I think there were actually several in Moodle as well. It was hit or miss as far as what the instructor wanted to do. As far as creating a welcoming the environment, it depended on the instructor. Some did a good job and did some type of here's the syllabus, welcome, everyone post a little bit about themselves. In fact, that was pretty consistent across the program. By the end we started getting really creative with it since it was the same cohort going through. So, we started

making things up and putting it in our introduction to see if anyone would catch it. But there is usually some sort of introductory activity. The best one, and I don't remember the course, it wasn't one of our standard ones, and it was one I took outside, we had to do a video, audio or anything using multimedia to introduce yourself, but it couldn't be text. So, we had some real fun videos, music, and kind of a combo. Some people used Xtranormal or whatever it is now, you know the animation software. So an introductory activity of some sort. But as far a welcoming that was about it. Usually it was something …or synchronous session where they introduced themselves. But it wasn't anything beyond that.

I am trying to think of anything else structure wise, umm, it just depended on the course. Things that were delivered in Blackboard often got extremely confused since some of the instructors were not fluent in Blackboard, so things were lost and were difficult to find. Instructors using Canvas did so because they were familiar with the platform. That looked a little more structure and easy to find the flow of the course. Moodle was a mess. But again, that was more instructor driven other than the platform. But yeah, beyond the introduction there really wasn't anything thing else that was welcoming.

[Instructor experience] I am actually part of the second cohort that has gone through this program. They have had if not at least a full year... they have done a little bit or parts. Many of them do not like it. And so, whether or not they... In fact, some of them would want to combine it with their face to face class. Two of them did Adobe Connect to deliver with their face to face class, where the meetings would be their face to face class, where we were basically participating with the face to face class and that was very

slippery. It was interesting because the job that I do is, I actually do online course design and I do a lot of work with… So watching very experienced professionals in the field not use the practices that we discussed or were designing with was probably as informational and useful for me that anything else. But yes, they all had online teaching experience, yes. But as far as if they had training in online instruction, I do not know. But I suspect that most of them did not.

Participant 18. I don't think that they provided choices, since the assignments were already there. We could answer…we had discussion boards. However, it was open, it was not the professor asking a question and everyone had to answer. It was more for comments.

The topic was astronomy and physics. It wasn't much to add to share viewpoints. It was comments, like what conditions other planets have that are similar to the earth. We believe that we can create life in those planets. It was mostly like that.

The interactions were from other students. There were assignments also, but we weren't obligated to do that. In my case, I took the course because I like to know about astronomy. But I skipped the formulas about physics because I was not interested in learning them. We did not have access to the professor.

[Choice of assignments] I did not complete them. I only did the quizzes. They were multiple choice, but if you got it wrong you could keep trying until you got it right.

[Environment] They used a smart screen where the professor could write actually. I could also read the captions. I could read it in Spanish since that was my native language. But I didn't do that, I didn't use the caption. I could print if I wanted to. I did that in one class. Just a portion. What's it called when it's just a section, not the whole

class? Units, that's the name. Some lasts seven, some ten or twenty minutes, I could repeat the units. We were supposed to complete the course in twelve weeks, but I could take longer. They had the syllabus and I saw the topics I was interested in and I wanted to skip physics. I like physics but I didn't want to invest the time.

Participant 27. The online class that I took within the last year… but I took two. The one that sticks out is CIS122 Storyboarding for animation. But as far as how my instructor used autonomy support, he gave me a lot of flexibility. He knew that I knew the materials but he did stress that I did require this for degree completion. It was a requirement. So, I knew what was expected of me. So, the importance of the content and assignment, but at some point, I didn't feel I needed to read the materials. But the instructor stressed the importance of the material and because at that point I wasn't aware that I had to take the class. For the assignments, to make them my own, I was able to be creative.

For storyboarding you are breaking information into sectors. One example for an example, we had to take the university's home page and make something different, but at the same time it had to meet certain criteria too. There was flexibility but it was also important for me to get all of the content for that assignment. [Flexibility] I still had constraints for the assignment.

I had the instructor several times. I had him for several courses. We'd met before and then CIS136 was set up. He knew I was busy and he worked with my schedule. I just was appreciative that he didn't throw everything up there. There were times when I wanted him to put everything up. However, he knew I worked fulltime and was completing an externship. So, he did work with me. I would have liked him to [put

learning activities up all at once] because if I was off on the weekend I was working on schoolwork. I would have like to see everything up front so I could work down the list. I don't know why he didn't post it. I requested it, but I don't know why everything wasn't posted at one time. Different professors are different. Some will post it all and some won't. In the back of my mind, I was a little worried, because I didn't know when I would find the time to do them. I would have appreciated it if they all would have been posted, so that I could budget my time better.

Interview Question 2. How have autonomy supportive actions impacted your online course experiences?

Participant 2. I think a lot of times, the way the instructor formatted the course helped us become more autonomous. They often made it clear in introductory videos, they made the class more welcoming and make it so that we know that we could contact them if we had a situation come up. I think also the opportunity to get to know some of the professors. When I had the situation with my daughter and my father, the professor I had was the director of our program and was someone I had as a professor several times. I felt very comfortable with her. She had given us those opportunities to have discussions and given us collaborative work where I felt I had built more of a relationship with her and I think she understood what was going on. I think it varied greatly by professor. Some of the synchronous sessions we had were not necessarily supportive of autonomy. It sometimes felt as if they were taking a class they had taught face to face and shoved it in an online environment. However, it's a Saturday course and we have to meet at 8 am, it's not really an online course, and a lot of it does not support autonomy because you are an online student. A lot of professors were good with keeping that in mind. Some tried to

work with us and kept that in mind. Some tried to do too many synchronous sessions because they felt more comfortable in that role.

It can already be boring to sit through a lecture, but to sit through a lecture at your own computer with a lot of distractions at a time that might not be ideal to you can be very frustrating. I think I didn't gain a lot from those experiences. It was frustrating with the timing. I was one of the few people on a different time zone. So that made it even more difficult because the timings of the sessions were based on the university. For most people that worked out well, but for me it did not work out well. Sometimes it felt like wasted time. It was frustrating. Part of the reason for choosing an online program is because you want to be able to get things done at a time that's good for you. However, there were some students that didn't feel that way. They wanted the synchronous course. Many of them were frustrated when there weren't synchronous sessions. They wanted that. I don't know if they felt like it was more like a traditional course and that was more comfortable for them. They felt more connected. I think it was based on how the synchronous course was run. Some were just the instructor giving a lecture, while others were more collaborative.

I am guessing it would vary based on each person. There were some that did not want the online class. From what they stated, it sounds like they just wanted the interactions. I think sometimes it's just a security blanket. I teach college courses online now and I think some students are just nervous and want to talk to the professor. They don't feel comfortable emailing and they think the email won't be returned on time. Or they just have this security speaking with the person or having that nervousness about the assignments.

[Most impactful] I think structure and planning for their course. The more information they gave from the start, the more we were able to plan. Three weeks in there's going to be a project and then a paper and then a big project. If I knew that in the beginning, regardless of if I was able to start on these things it gave me the ability to plan out my time and know if I needed to start something early. I'm going to start on this project weeks before it's due and I will start on another at another time. Because of the fact that they planned it out so well with a clear structure, they made it very well organized for us. Some even provided the rubrics at the beginning of the course, even if we couldn't complete it, it gave use the ability to plan our time.

Participant 5. I think cutting it into bite pieces that we were able to do within a week, even though some bite size were very large, but it was still possible in a sense. And I think the support from the instructors is very important. Pretty much most of our courses, the instructor's responded. I think that one of the things that really helps since we are really in a long distance learning. So, the support to respond, let's say that I have a question and I email my instructor, the response rate ...and I don't mean like instant messages at least like within a day, because I had one instructor that went out of town but didn't tell us about it. He didn't respond to my question on the assignment for in three to four days. I was like whoa, what am I going to do. This is really a big deal. But that was one incident that happened. But he came back and apologized. But the response and communication between the instructor and student is very important. [Most important factor] I think is communication.

One thing, showing patience with self-paced instruction was key. We did a group assignment. Yeah that was a mess. We missed the whole point for the project. The

instructor was very nice and said you didn't do it right at all, so I am going to let you do it again. I just want you to go fix it. I think the patience and not just giving us a 0. That helps us a lot. We thought we did great and that we did everything, but we actually missed a few lines. Of course, a welcoming environment would be very nice. That was very nice to have. The other one providing choices for us to do our assignments, we actually in some of our discussions were provided three questions and allowed to choose one that we can discuss. That gives us choice. Choice is good because not every single question is our preference, but we had choice to do that. Some of the discussion questions were based on working experience. Let's say I teach science, but if you want me to talk about language, I would have a hard time. I would have to make up for lost time. Letting us choose our discussion topic is good. But that choice will come with those that may not have a lot of people. So, let's say we have a class of 20 so that with three discussion questions and choose one, but only one person chooses and it's me! So, then there is no one to discuss with me. That happens. That may be another drawback. There is nothing you can do about. Sometimes the instructor would jump in to discuss with me. She would make some comments and have a little dialogue with me.

Participant 7. Well it was important for me continuing the course, because that one course was 12 weeks, a full semester. Yeah, it was a lot of work. You had to select articles that were posted as resources. So based on your interest, you had to read the article and then you had to respond to other's posts and provide them with feedback for their work. If someone responded to your post. You have to respond to their response. An online course is a lot of work. So the fact that they gave us these choices and gave you

feedback if you were in a snag, that was very important for your completion of the entire course.

In both courses, both instructors were very responsive. They responded right away. They gave you information about themselves, so you would feel you were dealing with real people. So, they were involved with the course. They didn't just put the course and leave you to like a self-paced course. They actually… as I did a project, the director for the overall course would come in and respond. He was kind of like a name in the field. So, for them to respond was very key, that they weren't just leaving it to the graduate students, that they were actually responding in the course…the actual professor. When you do online courses, that's pretty key. Sometimes there is a complaint if it's just graduate students. Most students want the professor, because they have the expertise and possibly the graduate students don't. So he was also in there responding. This was pretty important.

The one course was data analysis and the other was how to support online faculty. At our university we are starting to do these online courses. We were hiring adjuncts to do it. As a director it was important that I support online faculty that were going to be teaching our online course. Both of those were relevant to me because they were providing me with tools to help me on my job. So that helped me with my motivation because they were providing me with tools to use on my job. So, relevance of the course helped with motivation.

Participant 29. They all kind of link to each other for me for a certain degree. The environment itself is a forum for people to share their thoughts and feelings about a particular topic…the environment itself. In the online environment you have a diverse

group of students. They come from a different background. So, it's important for the online environment to be conducive to that certain thing. Sometimes in the on-ground classroom you only have a certain amount of time to teach your subject on a weekly basis. In the online environment, it's more conducive. Self-pacing is good. You are not tied to a particular timeframe. Although the four hours, once a day, once a week environment is different online because you have that flexibility. Of course, you have a deadline to complete an assignment, such as a discussion question, but you have that flexibility. And you're able to share more because the environment only allows you do to that. Again, the flexibility of allowing the student to be more flexible is important and having a choice of assignments. Although it may be tied to a particular subject matter, the student can bring their own experience to the assignment. Again, going back to the reflection journal, it's reflecting on my experience and background while yours may be different. I do like that we are allowed to do that.

[Most impactful] I would say for me, the opportunity for personalization and flexibility because I could personalize the assignments based on my background and experience. That has helped me in a previous class that I had. Personalization was the key for me. And of course, the environment. It's more conducive to my background and where I am as far and work/life balance and all that stuff.

[Instructor actions] The course that I am taking now, I had to ask the instructor or …I contacted the instructors about the feedback I had received on a couple of assignments, because I thought I had hit the nail on the head. I thought I did pretty well. Based on the feedback that I got from him, it wasn't what I thought. It wasn't the grade that I expected. And he did. It's helping me to consider the next assignment. In other

words, the assignment that I am currently working on. The feedback has been a benefit to me because I need to incorporate it into this particular assignment. The feedback is motivating me to do better on this assignment. It's expected that once I get the grade, I will be able to see the difference from the last one. His feedback is definitely motivating me to work harder, to take the time to really think about how I want to approach this assignment from a different perspective that I hadn't considered before. Even to the point that I did some additional research online to see how I can make improvements to this assignment. So coupled with the feedback and the additional research, my approach to completing this assignment will help me to get the grade I deserve because of the additional time I am spending improving this assignment.

Participant 10. Certainly the welcoming nature. Um, I think that… I was very driven to get this degree. Me, personally, I had been waiting for this program to be available for four or five years. When it finally became available, I leapt all over it. However, it took me four years to complete. Somewhere around the middle, I became very tired of it. So, the connections and relationships formed with not only my instructor, but also my peers was a good motivator. That was part of that creating a welcoming environment. The fact that my coursework often dovetailed with my work, it felt like I was hitting two birds with one stone was another very important component. So having a strong connection between the rationale for the course work and again that very real work connection and the possibility of completing my assignment with a very real work related need was very important for me continuing. This was the strongest effect, the strongest reason for me continuing and not giving up.

One of the things that I didn't touch on, but that question or the way it was phrased reminded me is that the professors in these courses were very aware that the vast majority of students were non- traditional students who worked full time. They set deadlines and tried very much to hold us to them. However, if we went to them and said, my kids sick, I have a work crisis. If you were proactive in addressing any type of barrier to participation, they were very understanding and bent those deadlines without a whole lot of trouble, if essentially you weren't blowing them off carelessly. If you were a conscientious student and attempting things, they were flexible. And I think that this was component that was really important. It had nothing to do with the course of study. A whole lot of what I said had to do with how the course of study was structured. But this last component turned up being really important, not just for myself, but also a lot of my peers. For the professors understanding that the online learning students, that were often nontraditional and needed support related to family and work, and bending deadlines and expectations was really, really critical.

Participant 11. Well it definitely gave me a more positive attitude about quantitative analysis. That is definitely not my area of expertise and I found it overwhelming. Had it not been for this professor's encouragement and fun little games and stressing how it could be used later, I don't know what would have happened. It was rough. It was a rough class. In fact, I took three of those classes. I only needed to take one. But that was in part to the supportive environment that teachers set up.

We had due dates for that course. If we completed them in enough time, she would review them and provide comments as many times as necessary until we got it right. I guess that falls into the category of patience. She was just so patient. If we would

meet her more than half way, she would certainly meet us there and then some. I will say that when I went into the first course, saying I am not a quantitative person and I will take this first quantitative course because I have to and that's it. But I ended up taking all three and wrote a quantitative dissertation and I don't think I could have done that had it not been for this supportive environment.

Just the sheer ability of being able to submit and resubmit until we got it right and her working with us until we got it right was really how I got to it. I did learn to appreciate quantitative analysis. If it's possible for anyone to be passionate about quantitative analysis, this woman was. It was infectious.

As you know it's really hard to find long lengths of time to sit down and really absorb this information. So, it was hard to get the assignments complete. But it did help me to know that I could try it and if I didn't get it right, I could try it again. I would know exactly when I could set time aside. She had a really organized schedule. So, I would set time aside to do that. I schedule everything. I knew that even though the assignment was submitted, I knew I needed to schedule additional time until the due date, to make sure I had time for each revision. And then if it turned out that I passed it on the first try, then I just had some extra time.

Participant 14. Yes, because the homework was not so much that I couldn't handle. I had an advantage in the sense that my children are grown up and I had more time on my hand. However, some classmates that had small children had a time crunch. But I was able to work and spend time on my lessons. My children didn't need me to help them with their lessons, and I was free to do my work.

In all of my courses I was very fortunate to have eager instructors. Actually, at the beginning of each course, on Day 1, we were supposed to post a video of ourselves based on the topic given; for instance share your hobby or talk about your country and post a picture. As a result, we were able to learn about each other. We knew you like this, I like that; building a team like thing. We were able to talk about and to each other. This helped with our discussions. In the discussion forums, the instructor wasn't very formal. However, he made sure that students were taking part of the entire discussion. Most students had a very good relationship with the instructors. They also encouraged me to go into the Ph.D. program as well. So since taking these classes I have been doing very well with those instructors, after having them for two months. We also have exchanges about my family and I also knew what was happening with them. There was a very friendly environment with some of them, not all of them.

The environment created by the professors, through the instruction and the discussion forums... I am from India and when I first started the program I was living in Dubai. I was different from other students who were doing the course from the U.S. They were very friendly. My English was a little different. But through watching the other students, I changed my style. The entire environment was supportive, the professors and my classmates, they made the environment so friendly. The friendly environment supported me a lot. The first course later became so friendly, that eventually we all met in person and we really had a good time. The online environment really made this happen. I feel very close to my online friends, my virtual friends I call them. So I feel very close to them. Most of them are in touch through Facebook and workshops and things like that. So, the supportive environment was most important to my success.

Participant 17. I could not have completed it any other way. The majority of the time, taking two courses, I had writing assignments due once a week. Sometimes you got feedback. Sometimes you didn't. Usually, there was at least one synchronous session per course, every couple of week. Tuesday night 8 pm - 10 pm or Thursday night at 6 pm - 8 pm or something along those lines every couple of weeks. Those were manageable for me for the most part because I work during the day. It was just enough time to come home put something in the microwave, get the kid to bed and then sit down in front of the computer and because of the way that the assignments were structured, they were usually due on the weekends. So those of us who were slammed had the opportunity to on a Saturday or Sunday work on something that had to be turned in. The other thing that worked for me because I also work in the evenings, a couple times a week when I have rehearsals and music commitments, I studied everywhere in the car. I attended classes on my phone as I was driving to a rehearsal. Tuesday night is typically rehearsal night for me so when those would line up, I would be on my phone and my professors were very good about the fact that they knew I may drop off a call if I am driving 160 miles to a rehearsal on a Thursday night. I would do what I can.

A good part was that the time things were recorded, so if I missed something critical, I could go back and watch to the recording. That flexibility of being able to take all of the circumstances that could happen and be able to do them anywhere, at a kids rehearsal, in the car driving somewhere, at lunch during my job, on the treadmill. I got a lot of reading done, on the treadmill. …while I was trying to do other things. So for me, that as far as how the course structure being able to do my work anywhere, anytime because it was primarily digital, I am the type of person that prints everything out, so

when there were assigned readings, it was printed and it went with me. So, my purse is full of articles because everywhere I go, I am trying to read something. But that wouldn't have worked if I did a Monday, Wednesday, and Friday. 1 pm – 2 o'clock class. The structure would not have worked because every week there was something different…a sick kid, trying to get something done. I may not have time during the week until I could carve out something. So that's how the online course structure worked for me. And it did work pretty well. I was actually kind of surprised at how much could get done with everything else. And I am finding now that I am in the dissertation stage doing the analysis, I feel like I have the most free time in the world because it's is on my own schedule and I don't have an assignment due every week. I feel like I can be a normal person right now.

[Impact of flexibility] In fact my background is actually in library science before I started this career. So being able to call up an article or do quick search in our university library while on the road and cite something, and I was submitting assignments all the time from a hotel you know or in a Starbucks in between rehearsals. Yeah so absolutely that 24/7 access to research and resources absolutely made it possible.

Also, 4G made it possible. [Laughter]

The few [autonomy supportive actions] that I experienced were definitely helpful. I can say without a shadow of a doubt, more would have been even more helpful. In my particular program, in any online program you have people dropping out. One of my own personal concerns was that they didn't have a lot of these things in place. We didn't have a lot of the autonomy supportive actions in these courses. As a result, we relied on each other, a lot. I don't know if that's necessarily a bad thing. But if in those cases where we

couldn't be physically present to help each other, this sort of support would have been very valuable. I will say that we had a couple of different Facebook pages that we kind of used in this manner where instructors participated and added suggestions. My own research ended up on that side of things. That was also there. It wasn't there just for the course, but for the program. There were times that can be seen as autonomy supportive, as far a support mechanism outside of the course. But we ended up relying on each other. It would have prevented some of the drop outs we had.

Participant 18. [So flexibility, choice, and environment] Those actually facilitated or enhanced my interest. The course was very, very engaged. I didn't have to take the course. However, I was always looking for free time to go back to my course. [Positive impact] Flexibility

Participant 27. I experienced a lot [autonomy supportive actions] with most instructors. They are very willing to …as far as discussion questions, we have to introduce ourselves. With CIS (Computer Information Sciences), we had to do a lot of collaboration. That was a big part of my academic career. The instructors, it's the way that they present the materials online. Different instructors are different. They are have their own way of doing things. When they listen, because we also had opportunities online to which is a good thing. It's a little different than being in class. When you are doing distance learning, a lot more time is used by instructors on autonomy supportive actions. Because normally the classes could be 30 or more. I don't know, it seems like they listen more to what students want to make us feel comfortable. If that makes sense.

The most impactful, I think included classes that I came in with to my university. I had one specific professor and I never met her. But she made such an impact on me as

far as online courses. I had taken several courses with her and she introduced me to a whole new learning experience out there. That really stuck out for me. We never met each other and probably never will. She was very personable. Believe it or not for distance learning. I think that kind of stuck out. Her personalization.

Anything that had to do with collaborating. If we expressed…for instance we had to build an Access database. It was four of us and it ended up being two of us. The other two, it was their last class and they were not contributing. That stuck out for me. She said the work still had to be done. She was firm. She understood, but gave us allowances that it was just two of us creating this relational database, which was huge. We still had to complete the assignment. She encouraged us, but we still had to complete all the work.

[Impact] It was reality. You know I learned later, you know when you are working. I worked on the job with databases. It's just reality not everyone on the job is going to contribute. Not everything is going to go as planned. There are just as many obstacles than milestones. It was real world, she was welcoming and patient but she gave you a dose of the real world. We had to finish the assignment and we did…at 4 in the morning but we did, yes.

As a result, I became more conscientious about my work and more resilient, basically. There were times in the past when I would get frustrated. You know especially when you have to be self-motivated. With distance learning you have to be self-motivated. And in some cases, I was missing the lecture. But I had good instructors that knew how to keep me motivated. They were always pushing us to do the best that we could do.