PREFERRED INSTRUCTIONAL METHODS OF MILLENNIAL NURSING STUDENTS: A QUALITATIVE STUDY

by

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Abstract

The continuing nursing shortage requires nurse educators to understand the best ways students learn to maximize student success and retention. Millennial generation students are currently the majority in the associate degree nursing classroom; therefore, identifying the instructional methods that enhance this generation’s learning can influence student success, retention, and preparation for the workforce. The literature reviewed offered conflicting findings, identifying differing instructional methods that enhanced millennial students’ learning processes. The purpose of this basic qualitative research study was to determine what instructional methods millennial students identified as aiding in their learning within an associate degree nursing program. An additional research sub-question was added to determine what instructional methods millennial nursing students described as possible barriers to their education. Students born to the millennial generation (1980-2000) and currently enrolled in a Midwest community college associate degree nursing program were invited to participate in the study. Face-to-face semi-structured interviews were the primary data collection method used. The basic qualitative design uncovered the instructional methods that aided in or created barriers to learning by millennial students in an associate degree nursing program utilizing. The findings revealed that lecture is an instructional method that enhances learning, regardless of its delivery method; the use of interactive questions further improved millennial student learning; and group work was noted as the least effective learning strategy of millennial students, although negative learning experiences with group work may be remedied if instructors are aware of the variables. This study concluded that millennial students learn best when mixed instructional methods using both active and passive strategies are utilized.
Dedication

First, I want to thank God for directing me through this journey by providing His Word, which offered continuous inspiration and assurance as I dealt with those moments of self-doubt.

This dissertation is dedicated to my family and friends for the continued support and encouragement they provided me throughout this doctoral journey. My husband, Adam, I cannot put into words how much you mean to me. You have shown your support for me every step of the way, encouraging me even when the doubts within myself were revealed. I will forever be grateful for your continued patience, selflessness, love, and the dedication that you provide me daily. You are my forever, and I look forward to spending a lot more time together. My son, Aidan, I started this journey many years ago, and you have always understood that it was important for me to reach the goals that I had set. I hope that my self-determination and dedication toward this challenging journey inspire you to work toward your own goals. My son, Gavin, I know that you hardly remember a time when mom was not writing papers. I know that you are looking forward to having those no paper writing days! I want to thank you for your endless hugs and your ability always to make me laugh. My boys, you inspired my attitude and completion along this journey. I love you to the moon and back!

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# Table of Contents

Acknowledgments ........................................................................................................... v

List of Tables ..................................................................................................................... ix

CHAPTER 1. INTRODUCTION ......................................................................................... 1

  Background of the Study ............................................................................................... 2

  Need for the Study ......................................................................................................... 5

  Purpose of the Study ..................................................................................................... 7

  Significance of the Study .............................................................................................. 8

  Research Questions ....................................................................................................... 10

  Definition of Terms ....................................................................................................... 10

  Research Design ........................................................................................................... 14

  Assumptions and Limitations ......................................................................................... 15

  Organization of the Remainder of the Study ................................................................. 17

CHAPTER 2. LITERATURE REVIEW ............................................................................. 19

  Methods of Searching .................................................................................................. 19

  Theoretical Orientation for the Study ........................................................................... 20

  Review of Literature ..................................................................................................... 28

  Synthesis of the Research Findings ............................................................................. 41

  Critique of the Previous Research Methods ................................................................. 43

  Summary ....................................................................................................................... 48

CHAPTER 3. METHODOLOGY ..................................................................................... 50

  Purpose of the Study ..................................................................................................... 50

  Research Questions ...................................................................................................... 51
Research Design........................................................................................................51
Target Population and Sample ................................................................................54
Procedures................................................................................................................56
Instruments................................................................................................................62
Ethical Considerations..............................................................................................67
Summary.....................................................................................................................68

CHAPTER 4. FINDINGS..................................................................................................69
Introduction: The Study and the Researcher...........................................................69
Description of the Sample........................................................................................70
Research Methodology Applied to the Data Analysis............................................71
Presentation of Data and Results of the Analysis....................................................74
Summary.....................................................................................................................87

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS...........................88
Summary of the Results ............................................................................................88
Discussion of the Results...........................................................................................91
Conclusions Based on the Results ...........................................................................93
Comparison of Findings with Theoretical Framework and Previous Literature ...93
Interpretation of the Findings....................................................................................97
Limitations..................................................................................................................99
Implications of the Study.........................................................................................101
Recommendations for Further Research...............................................................105
Conclusion...............................................................................................................106

References...............................................................................................................108
List of Tables

Table 1. Interview Questions, Categories, Subcategories 74
Table 2. Millennial ADN Students’ Preferred Teaching Strategies 76
Table 3. Instructional Strategies That Enhanced Learning 78
CHAPTER 1. INTRODUCTION

As the nursing profession continues to emphasize the need for more nurses, students born in the millennial generation continue to enroll in associate degree nursing (ADN) programs in response to the ongoing demand (Petges & Sabio, 2020). However, with the growing influx of the millennial student population, educators must determine the instructional methods that best promote learning and student retention. Knowles, Holton, and Swanson (2015) emphasized the importance of an instructor understanding their students’ preferred learning style to encourage a higher level of learning. Nursing instructors typically revert to a learning style inventory quiz to aid in understanding students’ preferred learning methods (Anderson, 2016). While establishing a student’s desired learning methods may be found through the completion of an inventory, Anderson (2016) explained that over 100 frameworks could be used to determine student preferences. The vast array of inventories may leave the educator overwhelmed and confused, making it challenging to identify specific student needs and utilize the most effective teaching methods to aid the learning process and retention efforts. The educator may not need to investigate each student’s learning preference but instead focus on the characteristics, experiences, and preferences of each generation.

The goal for nurse educators is to use teaching methods that encourage learning for each student group. With millennials comprising the most prominent generation in ADN programs, instructors must be able to understand the learning preferences and characteristics these students bring to the nursing classroom (Cantrell & Farer, 2019; Erlam, Smythe, & Wright, 2016; Toothaker & Taliaferro, 2017). The literature (Montenery et al., 2013; Orkiszewski, Pollitt, Leonard, & Lane, 2016; Shatto & Erwin, 2017; Stephens & Gunther, 2016) indicated that all generations have specific characteristics, and each generation has strengths and weaknesses
based on those characteristics, but it is not fully understood how millennial students’ characteristics relate to those instructional methods that help the learning process in an associate degree nursing classroom.

**Background of the Study**

The study focused on determining those instructional methods that aided in millennial students’ learning in an ADN program. With aging baby boomers in the workforce nearing retirement, the nursing shortage is expected to get worse over the next decade (Juraschek, Zhang, Ranganathan, & Lin, 2012; Zhang, Tai, Pforsich, & Lin, 2018). As the nursing shortage continues, millennial generation students may aid in reducing the deficit (Smith-Wacholz, Wetmore, Conway, & McCarley, 2019). However, a noted concern in nursing education is the high attrition rate (Jeffreys, 2014; Shelton, 2012). With the millennial generation accounting for over 70% of the nursing classroom composition, educators must identify ways to encourage their success and provide more nurses to the workforce (Peck, 2013). The literature by Smith-Wacholz et al. (2019) found that the use of effective teaching strategies that were technology-based and interactive enhanced the classroom atmosphere and helped retain nursing students. However, the study by Smith-Wacholz et al. (2019) did not investigate the instructional methods that enhanced learning in each generation. One way to aid the success of millennials is to understand the characteristics and instructional preferences of this generation.

Millennials, often referred to as Generation Y or Baby Busters, were born during the years of 1980 to 2000 (Carter, 2009; Delahoyde, 2009; Erlam, Smythe, & Wright-St. Clair, 2018; Erlam et al., 2016; Toothaker & Taliaferro, 2017). Millennials have a good sense of work-life balance while striving for success and dedicating time and energy toward overall goals (Wiedmer, 2015). Millennials are commonly described as innovative, technologically savvy,
team players, and a self-liking generation (Desy, Reed, & Wolanskyj, 2017; Stephens & Gunther, 2016). The generation often relies on technology for efficiency and immediate feedback, a common characteristic noted for the generation raised in a technology-filled environment (Erlam et al., 2018; Pettit, McCoy, & Kinney, 2017). Knowing millennial students’ generational characteristics may enhance the instructors’ understanding of those instructional methods that improve their learning.

**Background and Context**

While various research described the traits of the millennial generation (Montenery et al., 2013; Orkiszewski et al., 2016; Shatto & Erwin, 2017; Stephens & Gunther, 2016), few studies investigated how those characteristics relate to millennial students’ preferred instructional strategies (Johanson, 2012; Montenery et al., 2013). Some research indicated that millennial students prefer teaching strategies focused on group work and simulation activities (Garwood, 2015; Ironside, 2015; Montenery et al., 2013; Orkiszewski et al., 2016; Shatto & Erwin, 2017; Stephens & Gunther, 2016), while other research identified students’ preference for an online lecture-based instruction method (Hanson, 2016; Phillips & Trainor, 2014). Utilizing students’ preferred instructional methods may result in improving student understanding of the material, increasing student retention, and enabling prepared nurses to enter the workforce (Smith-Wacholz et al., 2019). Therefore, research is essential to identify the instructional methods that enhance the learning of millennial students in ADN programs to increase the availability of successfully trained nurses.

**Theoretical Frameworks**

Knowles’s theory of andragogy (Knowles et al., 2015) and Kolb’s theory of experiential learning (Knowles et al., 2015) provided the theoretical frameworks for the literature review.
The learning theory of andragogy was developed in the 1970s, offering a context for educators to understand the best ways adults learn (Knowles et al., 2015). The adult learning theory derives from the pedagogical philosophy, which focused on the learning strategies of children using a teacher-centered environment (Curran, 2014). The pedagogy model identified the teacher’s responsibility for delivering the information required for student learning (Knowles et al., 2015). The theory of andragogy shifts the pedagogical focus from teacher-directed instruction to the self-directed preferences of the adult learner.

Given that 72% of associate degree students are 25 years or older, the andragogy theory provides a framework for understanding and applying an adult’s learning preferences to determine effective teaching methods (Petges & Sabio, 2020). A review of the literature found studies utilizing the andragogy theory framework to aid the basis of the research (Delahoyde, 2009; Eralm et al., 2018; Reynolds, 2017). However, while the andragogy model identifies the need for adult learners to utilize self-directed learning, perhaps not all adult students prefer a self-directed approach.

Experiential learning theory (ELT) emerged from the theory of andragogy, focusing on adult learners’ preferences. ELT suggests that students learn through life experiences (Knowles et al., 2015). With the research focusing on the backgrounds, experiences, and generational characteristics of the millennial learner, the experiential theory provides a useful framework for understanding how millennials learn best. Literature was reviewed that utilized ELT as the theoretical framework for studies investigating students’ responses with preferred teaching methods (Shin, Sok, Hyun, & Kim, 2015; Young & Seibenhener, 2018).

This study was completed to inform the researcher about the lived experience of millennial students’ learning using different instructional methods. By applying the adult
learning and ELT lenses, this research will show that more students identify the need for mixed instructional methods, using both lecture and technology-based teaching strategies such as classroom response systems, to enhance their learning. Overall, the implementation of students’ preferred instructional methods should lead to greater success for the student and the nursing profession.

Need for the Study

The use of millennial learners’ preferred teaching methods may influence student success and aid in student retention. Nevertheless, only limited research examines millennial students’ characteristics and their preferred instructional methods in an ADN program (Skrable & Fitzsimons, 2014; Young & Seibenhener, 2018). Hoover et al. (2018) described the need for nurse educators to utilize millennial students’ favored teaching methods to help student success. While nurse educators tend to rely on the available literature and research when choosing teaching methodologies, some of the literature is contradictory when identifying the millennial generation’s preferred strategies.

Conflicting literature exists regarding the adult millennial student’s preferred instructional methods. Some articles (El-Banna, Whitlow, & McNelis, 2017; Ferszt, Dugas, McGrane, & Calderelli, 2017; Jiang et al., 2018; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018) identified innovative teaching methods as millennial students’ preferred learning strategies; while other articles (Barnes & Jacobsen, 2015; Hampton, Pearce, & Moser, 2017; Hanson, 2016; Toothaker & Taliaferro, 2017; & Young & Seibenhener, 2018) identified the need for traditional instructional methods to help students learn. Previous research does indicate that millennial students enjoy innovative teaching methods (Garwood, 2015; Montenery et al., 2013; Shatto & Erwin, 2017; Stephens & Gunther, 2016); however; limited literature
identified the student’s perceptions of specific instructional methods and the overall perceived benefit on the student’s learning (Pagnucci et al., 2015; Stephens & Gunther, 2016).

Numerous studies focused on bachelor degree nursing (BSN) students’ preferred instructional methods (Erlam et al., 2018; Ferszt et al., 2017; Johanson, 2012; Montenery et al., 2013), yet there is limited research (Young & Seibenhener, 2018) on ADN students’ preferred strategies. The ADN route is more appealing to the non-traditional aged (25 and older) students due to various factors such as cost, the need to work while attending school, and the need to care for their established family (Petges & Sabio, 2020). The ADN student population is comprised primarily of non-traditional aged students, with 72% of ADN students being 25 years or older, whereas only 14% of BSN students were found to classify as a non-traditional student (Petges & Sabio, 2020). With non-traditional aged millennial students’ comprising the highest proportion of college classrooms and, more specifically, nursing classrooms, further research related to millennial students in associate degree nursing programs is essential to identify the needs of that student population (Cantrell & Farer, 2019; Peck, 2013).

While research suggested that changes in the nurse educators’ use of traditional teaching methods should occur (Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018), other studies described traditional teaching strategies as those students believed to be the most helpful in their learning (Erlam et al., 2018; Ferszt et al., 2017; Johanson, 2012; Montenery et al., 2013; Pagnucci et al., 2015; Stephens & Gunther, 2016). Additional research (Ferszt et al., 2017; Hoover et al., 2018) identified innovative strategies that can be incorporated into nursing programs but did not ask millennial students about their preferred teaching methods. Previous research does indicate that millennial students enjoy innovative teaching methods (Garwood, 2015; Montenery et al., 2013; Shatto & Erwin, 2017; Stephens &
Gunther, 2016); however; limited literature identified the student’s perceptions of specific instructional methods and the overall perceived benefit to the student’s learning (Pagnucci et al., 2015; Stephens & Gunther, 2016).

Identifying a millennial student’s preferred instructional methods in an associate degree nursing program, therefore, is vital because of the generation’s current predominance in nursing programs. Determining the instructional techniques that aid millennial students’ learning may positively influence student success and retention, promoting more nurses to the workforce to improve the current nursing shortage. The study will add to the literature identifying the preferred instructional methods of millennial students and inform nurse educators of these findings to implement beneficial strategies in the nursing classroom.

**Purpose of the Study**

The purpose of this basic qualitative research study was to understand the instructional methods that millennial students in ADN programs identify aided in their learning. Given the current generation composition within ADN programs, nursing student retention concerns, the continued nursing shortage, and the contradictory literature found addressing the millennial students’ preferred instructional methods; this study is highly relevant because it aimed to explore those instructional methods millennial students believe assist their learning process. The identification of beneficial instructional methods or barriers to a millennial student’s learning might be utilized by other nursing programs to support nursing student retention efforts, which would ultimately impact the nursing shortage.

The literature reviewed investigated the preferred teaching experiences of BSN students (Erlam et al., 2018; Ferszt et al., 2017; Johanson, 2012; Montenary et al., 2013). Research by Appleman (2016) and Toothaker and Taliaferro (2017) indicated the need for further studies that
investigated the preferred teaching strategies of millennial nursing students in a different educational setting. Therefore, this study will add to the literature, extending knowledge of those instructional strategies that aid in the learning of millennial generation students in an ADN program.

The millennial generation may be known for their preferred use of technology; however, there is insufficient research to document the specific strategies or technologies that are preferred. While various research indicated millennials’ preference for innovative, teaching methods (Litchfield & Matteis, 2016; Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018), additional literature argued the need for traditional teaching methods to increase a millennial student’s learning (Hampton et al., 2017). As millennial students continue to enter ADN programs at a high rate, nurse educators must utilize instructional strategies that aid in the application and analysis of the content (American Association of Colleges of Nursing [AACN], 2008; Cantrell & Farer, 2019; Peck, 2013). The results of this study will add to the literature by identifying those instructional strategies millennial students identify enhanced their learning in an associate degree nursing program.

**Significance of the Study**

It is crucial to examine the instructional methods that enhance the learning of millennial nursing students for multiple reasons. First, with millennial students noted as the most abundant generation entering nursing classrooms today, nurse educators need to utilize strategies that may enhance student retention and ease the nursing shortage (Cantrell & Farer, 2019; Peck, 2013). According to Walker (2016), nearly one-third of nursing students will drop out of nursing school, impacting not only tuition revenue but also the growing nursing shortage. It is projected that more than 3 million RNs will be needed by 2024; therefore, the focus must be placed on
retaining students using resources that effectively promote learning (Smith-Wacholz et al., 2019). Second, educators may not recognize the instructional methods that enhance the learning of millennial students. To illustrate, literature declared the need for changes in nurse educators’ use of pedagogy-driven traditional teaching methods (Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker & Taliaferro, 2017); however, only a few studies identified such traditional methods as those that students believed to be the most helpful in their learning (Erlam et al., 2018; Ferszt et al., 2017; Montenery et al., 2013; Stephens & Gunther, 2016).

Previous research indicated that millennial students enjoy innovative teaching methods (Montenery et al., 2013; Shatto & Erwin, 2017; Stephens & Gunther, 2016); however, limited literature identified students’ perceptions of specific instructional practices and the overall perceived benefit of those practices on student learning (Pagnucci et al., 2015; Stephens & Gunther, 2016). Additional research studied innovative strategies in nursing programs but did not ask the millennial student about their learning experience with the methods (Ferszt et al., 2017; Hoover et al., 2018). Numerous studies focused on the BSN students’ preferred instructional methods (Erlam et al., 2018; Ferszt et al., 2017; Montenery et al., 2013), with limited research (Young & Seibenhener, 2018) on the ADN students’ preferred strategies. Young and Seibenhener (2018) investigated the favorite teaching strategies for students in associate degree nursing programs. However, the study used a quantitative approach and did not specify the millennial generation as key participants (Young & Seibenhener, 2018).

Appleman (2016) identified the need for a qualitative research study to investigate millennial students’ preferred teaching methods in an ADN program. Qualitative studies are used to investigate a person’s opinion about a particular issue or experience (Percy, Kostere, &
This investigation of the teaching preferences of millennial nursing students will utilize a qualitative methodology. The study will provide information that will help nursing educators improve their success rates in preparing associate degree students for a career in nursing. This will serve the general public by meeting the growing need for nurses.

**Research Questions**

The research question is the foundation of a research study (Merriam & Tisdell, 2016). A good research question should provide precise details regarding the problem the researcher is addressing (Nassaji, 2019). The study’s questions were developed to enhance the data collection of this qualitative research study. The central research question was followed by a sub-question, formulated to further add to the topic of the study.

**Central Research Question**

What instructional methods do millennial students identify aided in their learning within an associate degree nursing program?

**Research Subquestion**

What instructional methods do millennial nursing students describe as possible barriers to their education?

The research questions served as the framework of the study, seeking to fill the literature gap identified in nursing education.

**Definition of Terms**

Defining the terms used in a research study helps provide clarity in understanding the research questions and purpose of the study (Maxwell, 2013). Understanding the meanings of these terms influence the readability of the study. The following terms were associated with instructional methods and the types of nursing programs found in the research study.
Associate Degree Nursing Program

An associate degree nursing program is provided as an entry point into the nursing field. ADN programs were developed to train technical nurses to obtain the knowledge necessary to provide patient care within two academic years (Billings & Halstead, 2020). This type of program curriculum meets the requirements outlined in the National Council of State Board of Nursing Licensure Examination (NCLEX) and is required to succeed in the role of the registered nurse (National Council of State Boards of Nursing, n.d.).

ATI Real Life Scenarios

An educational technology-based simulation utilized to recreate a real-life condition that enables students to work through a patient scenario in a safe learning environment (Lavoie & Clarke, 2017). ATI differs from virtual worlds, which tend to utilize avatars to deliver proposed care to the client; instead, ATI lets students direct a real person acting as a nurse in the scenario (Leibold & Schwarz, 2017). ATI has integrated branching logic into their education simulations (Assessment Technologies Institute, n.d.). When students are in a real-life scenario, they are prompted to choose among various possible nursing decisions. Based on a student’s decision, the case unfolds in different ways. Each choice leads a student down a different path making the scenario responsive to the student’s inclination (Assessment Technologies Institute, n.d.).

Baccalaureate of Science in Nursing Program

A baccalaureate (or bachelor) of science in nursing program is one of the program types that prepares nursing students for entry into the role of a professional nurse. The bachelor’s degree program provides nursing students with a broad background in liberal arts and sciences courses (Billings & Halstead, 2020). The nursing courses in the curriculum promote the essential elements of a BSN education outlined in the Essentials for Baccalaureate Education for
Professional Nursing Practice, which include healthcare policy and leadership (AACN, 2008). This type of program curriculum is consistent with the requirements outlined in the NCLEX test and is required to succeed in the role of the RN (National Council of State Boards of Nursing, n.d.).

**Flipped Classroom**

In a *flipped classroom* approach, the elements of the typical classroom are reversed. Students complete pre-class instruction, typically utilizing a technology-based format of prerecorded lectures, narrated PowerPoint presentations, or interactive videos to help understand the material (Njie-Carr et al., 2017). The in-classroom time is used to focus on student application of the information through interactive activities such as group work and simulation (Njie-Carr et al., 2017).

**Group Work**

*Group work* is described as a student-centered approach focused on learning through interactions and collaboration with peers (Wong, 2018).

**Lecture**

The traditional lecture is defined as a faculty member verbally presenting the information in a face-to-face environment where the students are passive listeners (Toothaker & Taliaferro, 2017). Instructors can introduce, discuss, review, and clarify content while being accessible for students to ask questions when there is difficulty understanding a concept.

**Millennial Generation**

Phillips and Trainor (2014) defined a generation as an “identifiable group that shares age, years, location, and special life events at critical developmental stages” (p. 197). The impediment to identifying each generation is the variation among studies regarding the
designated years of a generational cohort (Phillips & Trainor, 2014; Wiedmer, 2015). The shared years of each generation can fluctuate depending on the literature reviewed, making it difficult to decipher which time period coincides with the specified generation. This study used the birth years of 1980–2000 to identify the millennial generation (Delahoyde, 2009).

**Recorded Lectures or Lecture Capture**

The flipped classroom approach encourages faculty members to have prerecorded lectures for students to listen to on their own time outside of the classroom. The prerecorded lectures are typically accompanied by a type of presentation media such as PowerPoint, with the instructor’s voice recorded on each slide presenting the material as in the traditional classroom lecture (Njie-Carr et al., 2017; Young & Seibenhener, 2018). Using this form of lecture enables the instructor to allocate more classroom time to the application of content using strategies such as case studies, NCLEX question review, and simulation.

**Simulation**

Simulations use mannequins to represent the human reaction to various ailments a nurse will face in the field (Erlam et al., 2016). Educators can use simulation mannequins to react in a humanistic way to students’ interventions, enabling students to make mistakes and learn about the physiological changes that can occur from their actions. Battle and Tyson (2018) described simulation as a non-traditional teaching strategy, enabling students to practice skills in a safe learning environment.

**Student Response Systems**

A strategy found to promote an active learning experience is the use of student response systems or clickers (Thomas, Pinter, Carlisle, & Goran, 2015). The traditional student response system is comprised of handheld electronic clickers, a receiver, and software that is integrated
within an instructor’s PowerPoint slides (Toothaker, 2018). However, some current student response systems such as Nearpod utilize an internet-based application enabling instructors to embed learning activities into the lecture presentation (Gallegos & Nakashima, 2018). Student response systems allow instructors to ask questions about the lecture material and receive an instant summary of students’ understanding and may provide student anonymity (Klein & Kientz, 2013).

**Technology-driven Teaching Strategies**

Toothaker (2018) defined the use of technology-driven approaches as innovative teaching methods to aid active learning. Technological instructional methods may be strategies such as student response systems, simulation, virtual case studies, and watching videos (Toothaker, 2018).

**Traditional Teaching Strategies**

According to Billings and Halstead (2020), *traditional teaching strategies* are described as traditional face to face lectures, objective testing, writing papers, and written group work. The traditional teaching strategies do not necessarily utilize a technology-driven approach.

**Research Design**

Various research methodologies exist for investigators to utilize; however, the researcher must choose the method that best aligns with the study (Merriam & Tisdell, 2016). The central research question asks millennial students to share the instructional methods that aid with their learning in an ADN program. Fewster-Thuente and Battenoson (2018) described the purpose of a qualitative study as understanding the participants’ perceptions, beliefs, or experiences; therefore, the qualitative methodology was selected to explore the preferred instructional strategies of ADN students who belong to the millennial generation.
The study utilized a nonprobability sampling strategy with a purposive sampling design. Purposeful sampling design is commonly used in qualitative research because participants are selected based on particular experiences or backgrounds that the researcher wants to study (Palinkas et al., 2015). For this study, a criterion-based purposeful design was used. The inclusion criteria for the study were nursing students who were born within the millennial generation (1980–2000) and are enrolled in an ADN program. Merriam and Tisdell (2016) described that purposeful sampling is chosen because the sample is not unique and is relative to the total population. With millennials noted as the predominant generation in ADN classrooms, the sample for this study meets the purposeful sampling guidelines (Petges & Sabio, 2020).

The sample size of the purposeful sampling design is based on data saturation, with no new information emerging from the participant interviews (Merriam & Tisdell, 2016). The study employed a sample of 12 participants with data saturation reached. The sample population was derived from a Midwestern community college in the United States; participants were born between 1980 and 2000, were currently enrolled in the community college’s ADN program, and signed the consent to participate in the study.

**Assumptions and Limitations**

A researcher’s assumptions are usually the driving force for the study. A researcher determines a study topic of interest based on their knowledge of the specific content area. A researcher’s assumptions may drive research studies and, in turn, may influence the limitations of the study. Assumptions and limitations impacted this study.

**Assumptions**

Assumptions were pertinent to the population and sample size for the study. First, because the participants self-reported as millennials, it was assumed that participants were honest
about meeting the eligibility criterion of the study. The second assumption was that the non-probability purposive sampling technique garnered participants who represented the larger ADN population. The basic qualitative design requires data collection through interviews, and the assumption is that participants responded honestly to the interview questions.

The next assumption was that the study would add to the gap in the existing literature and substantiate the data to decrease the inconsistencies found in previous research. With the millennial generation encompassing the majority of students in nursing classrooms, a noted assumption is that the study will help nurse educators determine the most effective teaching methods for millennial students (Skrable & Fitzsimons, 2014). Based on the adult learning theory, an assumption was that millennial-aged students would prefer self-directed instructional methods.

The millennial characteristics of being innovative, technologically savvy, team players, and a self-liking generation (Desy et al., 2017; Stephens & Gunther, 2016) lead to the assumption that students will prefer group work and collaboration with peers when learning nursing content. In addition, the millennial characteristics lead to the assumption that students born in a generation who have technology as a part of their daily lives would prefer technologically driven learning strategies. Finally, since millennial students have generation-based characteristics, this study assumes the students’ preferred learning methods would be the same.

**Limitations**

The study was limited by including only participants of a nursing program within a single community college, restricting the transferability of the data to a greater population. Transferability is identified as a form of external validation within a research study (Merriam &
Tisdell, 2016). Qualitative research can provide a lot of insight and information to its readers; however, making general statements about the broader population based on the findings is not something that can be completed with validity for this qualitative study (Merriam & Tisdell, 2016). Therefore, the teaching preferences noted in the study may be limited to the environment in which the study was conducted. Next, the millennial ADN students may not be the learners of the future; hence, the findings may be time-sensitive. Finally, personal bias may impact the limitations of the study.

Throughout the study, the qualitative researcher serves as the primary instrument for data collection (Merriam & Tisdell, 2016). The researcher presents with some internal bias because of personal experiences as a nurse educator teaching different generations in the classroom. The researcher’s teaching involvement has identified that students learn through varying learning experiences based on their generational characteristics.

**Delimitations**

Delimitations of the research study include the location in which the study was conducted. The Midwestern community college does not clearly define or represent every ADN program teaching strategy; therefore, the findings cannot be generalized to other areas across the nation. Nursing students from bachelor’s degree programs were not included in the study.

**Organization of the Remainder of the Study**

Chapter 1 provides an introduction of the study with an overview of the need and significance of the study’s relevance to nursing education. The remainder of the study will be documented in the following chapters. Chapter 2 is a literature review focusing on the methods of searching, the theoretical frameworks used for the study, a review of the literature, synthesis of the research findings, and a critique of the previous research methods, followed by a
summary. Chapter 3 outlines the purpose of the study, identifies the research questions, describes the basic qualitative research design, the target population and participant selection, the procedures used to conduct the study, the instruments used to collect the data, and the ethical considerations of the study, followed by a summary. Chapter 4 describes the data collected and analyzed and introduces the reader to the findings of the study. The chapter introduces the reader to the researcher, and the study provides a description of the sample, identifies the data analysis methodology, and presents the data and results of the study, concluded with a summary. Chapter 5 provides a summary of the research study, discussion of the results, the conclusions based on the results, the limitations, the implications of the study, and recommendations for future research, followed by a conclusion.
CHAPTER 2. LITERATURE REVIEW

The purpose of the basic qualitative study was to find the instructional methods that millennial students identified aided in their learning within an ADN program. Chapter 2 provides a review of the literature found that supported the study. The theories of andragogy and experiential learning provided a framework for the literature review. The varying instructional methods found in the literature were discussed regarding their alignment with a millennial student’s characteristics. This chapter also discusses the literary support for the basic qualitative study methodology and reviews previous research on the topic.

Methods of Searching

The literature search aimed to find articles on millennial students’ preferred instructional methods. A literature search was conducted using Capella University’s library. Several databases, including the Cumulative Index to Nursing and Allied Health Literature, Google Scholar, Education Resources Information Center, and ProQuest, supplied the information for the literature review. The databases produced studies in peer-reviewed journal articles, full-text articles, literature reviews, and dissertations. Key terms of millennial nursing students and preferred teaching methods were used both singly and in combination to search for relevant articles on the topic. The second search used was the combination of the key terms associate degree nursing students AND generation Y OR millennial AND teaching preferences. Limited research examines millennial students’ characteristics and their preferred instructional methods in an ADN program (Skrable & Fitzsimons, 2014; Young & Seibenhener, 2018). Therefore, more research is essential to identify the needs of the millennial student population in an ADN program. Research using the frameworks of andragogy and experiential learning provided a theoretical orientation for the study.
Theoretical Orientation for the Study

Learning theories serve as a framework for the implementation of teaching and learning strategies to help meet student needs (Yeom, Miller, & Delp, 2018). For a nurse educator to teach effectively, the instructor must learn, understand, and apply educational theories to practice (Cantrell & Farer, 2019; Peck, 2013). With a research topic focusing on the preferred instructional methods of millennial nursing students, there is a need to concentrate on learning theory frameworks. Various educational theories exist; however, nurse educators must focus on approaches that align with the research question. Since this study focuses on the millennial generation, students born in 1980–2000, the adult learning theory of andragogy is applicable. With the study concentrating on millennial students’ experiences with different instructional methods, ELT serves as a beneficial anchor for the research. Nursing education commonly utilizes theories such as adult learning and experiential learning to provide a framework in determining the learners’ needs (Berkstresser, 2016; Billings & Halstead, 2020; Curran, 2014; Young & Seibenhener, 2018). Therefore, the research will discuss, apply, and analyze the adult learning theories of andragogy and experiential learning and their influence on the education of the millennial nursing student.

Adult Learning Theory of Andragogy

Malcolm Knowles developed the adult learning theory of andragogy in the 1970s after analyzing the theory of pedagogy (Loeng, 2018). Knowles described the theory of pedagogy as a form of education utilized in children’s classrooms that was not conducive to the adult students’ learning preferences (Knowles et al., 2015). Pedagogy focuses on a teacher-driven learning environment (Curran, 2014). For example, the teacher delivers the content using traditional methods such as a lecture, and the student is expected to learn the material. However,
Knowles discovered adults’ cognitive ability was different from children’s; therefore, the traditional methods of pedagogy were not conducive to adult learning needs (Knowles et al., 2015). Andragogy was developed because Knowles determined that adults learn independently, requiring a student-centered learning approach (Knowles et al., 2015). The andragogy theory describes assumptions that can help with understanding the adult learner. Knowles formulated a theory about adult learners’ preferences through the creation of six assumptions, which became the foundation of the adult learning theory (Knowles et al., 2015). Initially, the only four assumptions that were developed and published were the need to know, the learner’s self-concept, the role of the learner’s experience, and readiness to learn. As research continued, Knowles et al. (2015) added orientation to learning and motivation to the list for a total of six (pp. 43-47). These assumptions identify the needs of the adult learner; however, this list does not enable the reader to apply those concepts to nursing education. Therefore, the assumptions within the theoretical framework will be further analyzed, focusing on nursing student needs.

**Need to know.** The first assumption focuses on adult learners’ need to know (Knowles et al., 2015). Toothaker and Taliaferro (2017) identified the need for adult nursing students to understand not only the concepts but also why the information is necessary. Therefore, nurse educators must utilize instructional strategies that offer reasons for acquiring knowledge and applying the material to the practice of nursing (Toothaker & Taliaferro, 2017). For example, a nurse educator who is teaching about an ischemic stroke could respond to the students’ need to know by sharing a personal practice story related to the care provided to the ischemic stroke victim.

**Self-concept.** The second assumption is described as the adult learner’s self-concept (Knowles et al., 2015). According to the self-concept assumption, adult learners do not want to
sit in a classroom as passive recipients of the learning process; adult students tend to be self-directed learners rather than entirely dependent on instructors (Green & Schlairet, 2017; Leigh, Whitted, & Hamilton, 2015). Therefore, a nursing student does not want to sit and listen to the lecture but instead be responsible for reviewing the materials on their own time. For example, Young and Seibenhener (2018) discussed the strategy of using prerecorded lectures that enabled students to listen to the instructor’s lecture on their own time, making the student accountable for reviewing and learning the content.

**Learner’s experience.** The third assumption that Knowles et al. (2015) presented in the model was the role of the learner’s experience. Billings and Halstead (2020) described adult learners as having a range of different experiences and backgrounds that influence a student’s educational pursuits. Knowles’s theory states that adults bring these experiences to the learning process to help them learn (Knowles et al., 2015). With the varying backgrounds and experiences that learners bring to the classroom, an approach to learning that enables them to apply those experiences may prove beneficial (Leigh et al., 2015). Therefore, instructors must be aware of the nursing students’ preferred methods and prepare to offer the favored approach (Billings & Halstead, 2020). Based on the millennial student’s experience with technology, instructors may need to utilize technology-driven instructional methods in the classroom (Barnes & Jacobsen, 2015; Delahoyde, 2009; Pettit et al., 2017; Young & Seibenhener, 2018). For example, the use of student response systems may encourage millennial student learning through the use of familiar technology-driven learning methods.

**Learner’s readiness.** The fourth assumption is identified as the adult learner’s readiness to learn (Knowles et al., 2015). Adults need to be in the right mindset to learn effectively (Curran, 2014). The adults’ readiness to learn increases when the subject is relevant to their
work or their personal roles. One way to encourage readiness to learn in nursing education is by using active learning strategies such as simulation, which emphasizes the connection between the lesson and the students’ professional objective (Knowles et al., 2015). Active learning strategies like computer-based simulation provides an opportunity for nursing students to apply knowledge gained to a virtual client in a safe learning environment (Donovan, Argenbright, Mullen, & Humbert, 2018). Computer-based simulation can help prepare students with the readiness to learn about nursing care and apply care learned in the clinical setting.

**Orientation to learning.** Orientation to learning is the fifth assumption and refers to the adult’s application of what they learn in the near term, as opposed to young students, whose education is often more theoretical or farther removed from a practical application (Knowles et al., 2015). Utilizing instructional methods that identify the importance of learning a concept and applying the information learned to the role of a nurse could prove beneficial. For example, the flipped classroom is a common strategy that nurse educators use to promote self-directed learning and enhance critical thinking skills (El-Banna et al., 2017). However, students may be unaware of the flipped classroom alignment with growth in critical thinking and application; therefore, nurse educators must utilize strategies in the classroom that promotes applying concepts learned to real-world examples. Instead of the traditional lecture during class time, instructors may assign case studies, encouraging students to apply concepts learned when caring for a particular client (Billings & Halstead, 2020; West, Usher, & Delaney, 2012). When the student is answering questions about a specific case, the student can orient the importance of their learning to a particular client's need.

**Motivation.** The final assumption outlined in the andragogy theory is motivation (Knowles et al., 2015). Both external and internal motivators can influence adult learners. For
example, while many nursing students will report external reasons such as money or a better career as reasons to go to nursing school, the desire to achieve the goal is an internal motivator. Adult learners should possess to progress throughout the educational journey (Billings & Halstead, 2020). In a study, Saeedi and Parvizy (2019) described nursing students as highly motivated learners who gradually lose motivation over time. Lack of motivation can influence a student’s academic achievement and impact student retention (Saeedi & Parvizy, 2019). A strategy to increase a nursing student’s academic motivation is an instructor’s use of quality teaching methods (Saeedi & Parvizy, 2019). For example, a nurse educator using instructional practices that enhance student learning may influence their motivation to achieve success in their course work, retaining nurses prepared for the workforce. The andragogy assumptions aid in nursing student success by focusing on adult learners’ needs (Knowles et al., 2015). Understanding adult learners’ needs can positively influence nursing education by providing insight into student learning preferences, enabling instructors to teach more effectively.

**Andragogy Relevance to Nursing Education**

The theory of andragogy is commonly applied to nursing education (Cantrell & Farer, 2019; Green & Schnairet, 2017; Yeom et al., 2018) because nursing classrooms teach adult learners who bring different experiences and backgrounds. Knowles outlined the assumptions of andragogy to enable educators to understand and utilize teaching strategies that promote the needs of the adult learner (Knowles et al., 2015). A review of the literature found studies that utilized the andragogy theory framework to aid the basis of the research (Delahoyde, 2009; Eralm et al., 2018; Reynolds, 2017). Using the andragogy theory as a framework resulted in literature findings (Battle & Tyson, 2018; Garwood, 2015) that investigated the alignment of millennial students’ characteristics with preferred teaching methods.
Experiential Learning Theory

While andragogy is a vital framework used in nursing education, another structure commonly used is Kolb’s ELT, which was formulated in the 1980s to help educators understand how a student’s experiences influenced learning (McCarthy, 2016). Education uses cognitive learning theories focusing on student cognition, and behavioral theories focusing on student behavior; however, neither focus on how students’ lived experiences mold the learning process (McCarthy, 2016). ELT addresses the need for educators to understand how students’ lived experiences could help or hinder their learning (Knowles et al., 2015). Therefore, the instructor must understand the importance of ELT integration into nursing education by implementing the steps of the theoretical framework into practice. A review of the literature identifies many researchers who utilized ELT to investigate how students’ life experiences could influence preferred learning strategies (Green, Wyllie, & Jackson, 2014; Koivisto, Niemi, Multisilta, & Eriksson, 2017; Young & Seibenhener, 2018). With the ADN classroom significantly comprised of millennial generation students (Petges & Sabio, 2020), educators must understand the influence this generation’s characteristics may have on their learning methods.

The experiential theory provides a useful framework for research that focuses on the backgrounds, experiences, and generational characteristics of millennial learners and their preferred learning methods. The theory outlines a four-step process that encourages learning: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Knowles et al., 2015). McCarthy (2016) indicated the need for a student to complete all four stages of the cycle for learning to occur.

Concrete experience. In the concrete experience stage, students participate in an activity aligned with a course concept (Fewster-Thuente & Batterson, 2018). A typical teaching strategy
utilized in the nursing classroom is a simulation experience (Erlam et al., 2016; Padden-Denmead, Scaffidi, Kerley, & Farside, 2016). Instructors prepare a simulated case based on a course concept to enable students to apply knowledge and gain experience caring for a specific patient. Students are encouraged to work through the simulation scenario with little input from instructors, gaining personal experience in caring for the patient. The simulation experience helps determine whether students understand the course concept.

**Reflective observation.** Reflective observation is the second stage in the experiential learning cycle (Knowles et al., 2015). The reflective phase enables students to observe the simulation process and reflect on their observations (Kaylor & Strickland, 2015). While they engage in reflection, learners can obtain feedback from peers regarding their performance during the assigned activity. Nursing education utilizes debriefing to ensure that self-reflection is integrated within simulation experiences (Erlam et al., 2016). For example, following a nursing simulation experience, students are asked to share thoughts and feelings regarding their performance during the encounter. Erlam et al. (2016) identified debriefing as one of the most critical elements of the simulation experience. Millennial nursing students noted that debriefing is a valuable learning strategy that permits collaboration and provides useful feedback (Garwood, 2015). The debriefing enables students to apply the knowledge they have gained through reflection toward future learning activities and their role as a professional nurse.

**Abstract conceptualization.** Student reflection continues in the third ELT stage of abstract conceptualization. During this phase, students abstractly think through the process, reflecting on both their experience and the observations of others to determine if different approaches to the simulation activity are necessary (Fewster-Thuente & Batterso, 2018;
Knowles et al., 2015). Following a simulation, students commonly report the need to utilize different strategies in future simulation experiences (Erlam et al., 2016).

**Active experimentation.** After observation of and reflection on the scenario, students need to think about ways to improve the scenario situation. In the active experimentation stage of the ELT cycle, students create a plan for improvement (Kaylor & Strickland, 2015). In this stage, students not only reflect on the simulation experience but also identify beneficial strategies to help promote awareness and application of the concepts during future scenarios (McCarthy, 2016). For example, the student who has difficulty with a catheter insertion during a simulated case can create a plan to practice the skill in the lab with an instructor or peer to obtain more hands-on experience. Practicing the skill may aid in the student’s preparation for future scenarios.

**Experiential Learning Theory Relevance to Nursing Education**

The ELT steps are conducive to nursing education because nursing students learn through experience. The experiences in the classroom, lab, simulation, and clinical areas all help improve a nurse’s ability to practice safely (Billings & Halstead, 2020). However, students and educators need to understand how a student’s generational characteristics or past experiences can help their learning (Kaylor & Strickland, 2015). ELT indicated a student learns from their background and experiences; therefore, educators and students must take necessary steps to ensure the learning environment is conducive to students’ needs (Knowles et al., 2015). Instructors must utilize instructional methods to help knowledge transfer within the nursing profession. Students must be willing to complete the ELT cycle, identify experiences learned, and create a plan to outline beneficial learning strategies custom to the student’s generational needs.
Review of Literature

The purpose of the literature review is to summarize the paradigm shift in nursing education as it relates to millennial learners and their preferred instructional methods. As millennial learners comprise the majority of the nursing classroom (Peck, 2013; Petges & Sabio, 2020), a review of the literature must focus on the characteristics and teaching preferences of the group. An analysis of the literature found studies that utilized andragogy theory as a framework for conducting research (Delahoyde, 2009; Erlam et al., 2018; Reynolds, 2017). The adult learning theory of andragogy addressed the need for educators to collaborate with adult learners to identify preferred teaching strategies (Billings & Halstead, 2020). However, conflicting literature exists regarding adult millennial students’ preferred instructional methods. Some articles identified innovative strategies (El-Banna et al., 2017; Ferszt et al., 2017; Jiang et al., 2018; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018) while others identified the need for the pedagogy-driven traditional strategies (Barnes & Jacobsen, 2015; Hampton et al., 2017; Hanson, 2016; Young & Seibenhener, 2018).

Literature articles outlined the millennial generations characteristics and addressed the generation’s strengths and weaknesses (Barnes & Jacobsen, 2015; Delahoyde, 2009; Desy et al., 2017; Erlam et al., 2018; Erlam et al., 2016; Hampton et al., 2017; Montenery et al., 2013; Pettit et al., 2017; Phillips & Trainor, 2014; Reynolds, 2017; Robb, 2016; Stephens & Gunther, 2016; Toothaker, 2018). Several of the studies focused on the millennial nursing student (Delahoyde, 2009; Erlam et al., 2018; Erlam et al., 2016; Hampton et al., 2017; Jiang et al., 2018; Montenery et al., 2013; Pettit et al., 2017; Phillips & Trainor, 2014; Reynolds, 2017; Robb, 2016; Stephens & Gunther, 2016; Toothaker, 2018), while other articles focused on millennial students in educational areas outside of nursing (Barnes & Jacobsen, 2015; Desy et al., 2017; Pettit et al.,
Two studies focused on ADN students’ preferences but did not specifically address the millennial learner (Skrable & Fitzsimons, 2014; Young & Seibenhener, 2018). The literature review produced three distinct themes regarding preferred instructional methods: innovative or technology-driven strategies, traditional teaching methods, and a combination of technology and traditional approaches.

**Innovative or technology-driven strategies**

Toothaker (2018) defined the use of technology-driven strategies as an innovative teaching method to aid active learning. Innovative teaching strategies utilizing technology focus on the student-centered approach outlined in the adult learning theory. For example, the literature on the use of innovative methods such as student response systems, simulation, and group work was analyzed for alignment with the instructional practices that benefit a millennial students’ learning.

**Student response systems.** Over the last ten years, the use of student response systems, or clickers, has grown exponentially, becoming one of the most commonly used innovative instruction strategies worldwide (Toothaker, 2018). As nursing education transitions to the flipped classroom, there is an increasing need to encourage active participation during class times (Montenery et al., 2013). Montenery et al. (2013) and Toothaker (2018) have shown that nursing students prefer clickers to traditional lecture methods.

Toothaker (2018) completed a mixed-methods study to investigate millennial students’ perception of clicker use during a traditional lecture. Clickers provide millennials with the technology they favor with the immediate feedback they prefer (Toothaker, 2018). Students surveyed indicated that the use of clickers “increased their involvement in class, enabled the instructor to address any concepts not understood, and benefitted their overall learning”
(Toothaker, 2018, p. 83). Overall, Toothaker’s (2018) study agreed with the findings of Montenery et al. (2013), which indicated that instructors needed to use more active technology-based teaching strategies to aid the millennial learner.

Montenery et al.’s (2013) research provides a historical background on millennial nursing students’ preferences using a quantitative methodology approach. Montenery et al. (2013) investigated various learning preferences of millennial nursing students, providing one of the few studies of preferred teaching methods that incorporated a mixture of traditional teaching methods and technology-driven approaches. Technology-based teaching methods included clickers, virtual learning, podcasts, and simulations (Montenery et al., 2013). The study results described millennial students’ preference for active learning strategies; however, passive strategies were also found to be beneficial when integrated with technology (Montenery et al., 2013). In a review of the technologies evaluated, student response systems were identified as the most favored technological teaching method for millennial students (Montenery et al., 2013). Students expressed that the clickers enabled them to use technology and enhanced their overall learning (Montenery et al., 2013). The use of podcasts had a mixed response, indicating positive results but not as significant as the other technological tools. Montenery et al. (2013) suspected the reason for the lack of favorability was the podcast’s similarity to a one-sided lecture. The traditional lecture was identified as an unfavorable strategy for millennial learners (Montenery et al., 2013). Other studies found the use of technology-based lectures to be the most favored teaching method (Barnes & Jacobsen, 2015; Delahoyde, 2009; Pettit et al., 2017; Young & Seibenhener, 2018). Therefore, due to the conflicting findings of past studies, more research on the millennial student’s preferred instructional methods is warranted.
Simulation. Various studies have identified millennial nursing students’ preference for learning through simulations (Erlam et al., 2018; Erlam et al., 2016; Shin et al., 2015; Skrable & Fitzsimons, 2014). With technology advancements, nursing schools have shifted from mannequin-based instruction to a high-fidelity simulation experience. Battle and Tyson (2018) described simulation as non-traditional teaching enabling students to practice skills in a safe learning environment. With millennial students’ preference for technology and active learning, it is essential to explore the effectiveness of simulation as an instructional method.

Erlam et al. (2016) investigated the use of simulation as a teaching method with millennial students. After students were exposed to the simulation experience, students were asked to take a survey highlighting the most valued aspects of the simulation experience (Erlam et al., 2016). Millennial students favored the use of simulation as an essential teaching strategy because it promotes group work, provides immediate feedback, and allows them to learn from their mistakes (Erlam et al., 2016). Millennial students noted that the most valuable element of the simulation experience was gained from educator modeling (Erlam et al., 2016). Role modeling enables the instructor to model skills and techniques while informing students how to best respond to a real-life patient scenario. Although role modeling is a beneficial teaching method, these findings conflict with students’ preferences for an active, hands-on learning approach noted by other studies (Shin et al., 2015). The role-modeling process incorporates a more passive approach to learning because the student observes the instructor’s actions with detailed explanations (Curran, 2014; Kay & Kibble, 2016). Although experiential learning highlights the importance of reflective observation, the elements of reflective observation include feedback and information provided by the student, integrating a student-centered learning approach (Kay & Kibble, 2016).
Repeating the skills and incorporating the hands-on aspect of learning was noted as the second valuable aspect of Erlam et al.’s (2016) study of simulation as a teaching tool. Kolb’s abstract conceptualization step in ELT recognizes the importance of students reflecting on their performance and using that reflection as an opportunity to improve needed areas (Knowles et al., 2015). Overall, the simulation method was a positive learning experience that may incorporate both active and passive teaching methods to enhance student learning and satisfaction.

Erlam et al. (2018) completed a study parallel to the one conducted in 2016 with similar results noted. However, the more recent study discussed the need for modeling, repetition, and communication as favored approaches to integrate into the simulation experience (Erlam et al., 2018). The study reiterated the importance of the pedagogical teaching model focused on instructor-led strategies, which conflicts with the adult learners’ needs noted in the theory of andragogy. Researchers need to further analyze the preferences of simulation as a favored instructional method for adult learners.

A study by Shin et al. (2015) investigated the value of active learning to nursing student competencies. The study used a cross-sectional comparative design in which one group used traditional teaching methods, while the other group was exposed to active instructional methods (Shin et al., 2015). The active learning group was exposed to simulation as the primary teaching method, and the traditional group was exposed to lectures (Shin et al., 2015). Shin et al.’s (2015) study was one of the few that investigated the benefit of each teaching method. The study was not restricted to the millennial learner; however, information regarding the preferred learning strategies could benefit instructional practices used with millennial nursing students. The study indicated that for nursing students to be competent in clinical nursing, traditional lectures were not sufficient (Shin et al., 2015). The study reported that the students who were exposed to
active learning strategies improved their critical thinking skills and were able to achieve a higher level of clinical competency (Shin et al., 2015). While Shin et al.’s (2015) findings conflict with those presented in other articles identifying the students’ need for traditional learning methods (Barnes & Jacobsen, 2015; Delahoyde, 2009; Pettit et al., 2017; Toothaker & Taliaferro, 2017), the results may reflect millennial students’ need for technology integration.

Skrable and Fitzsimons (2014) completed a literature review of studies that investigated the use of high-fidelity simulators in nursing education. While the study did not investigate millennial nursing students, the focus of the review was on associate degree nursing programs, an essential aspect of this study. Skrable and Fitzsimons (2014) analyzed 21 articles providing insight into instructional simulation methods and their integration into associate degree nursing classrooms. They found that students’ critical thinking scores increased when exposed to simulation instructional methods (Skrable & Fitzsimons, 2014). However, these scores were not significantly higher when compared to other teaching methods (Skrable & Fitzsimons, 2014). With the insignificant conclusions of the simulation literature, more research is needed to evaluate millennials’ preference for the strategy.

**Team-based learning.** Wong (2018) described group work as an innovative teaching-learning method. While a specific study did not investigate the effectiveness of group work as a teaching method for millennial students in associate degree programs, a variety of studies (Desy et al., 2017; Montenery et al., 2013; Stephens & Gunther, 2016) identified the importance of teamwork for millennial learners. Some research indicated that millennial students prefer teaching strategies focused on group work and simulation activities (Desy et al., 2017; Erlam et al., 2016; Montenery et al., 2013; Stephens & Gunther, 2016). One research study (Wong, 2018) that investigated students’ experiences with group work focused on undergraduate nursing
students in a BSN program. Wong (2018) conducted a qualitative study using focus groups of students and educators. While the majority of participants interviewed identified the overall benefit of group work on their learning, students addressed variables that could influence successful learning using the strategy (Wong, 2018). The four main themes of initiative learning, empowerment of interactive group dynamics, factors for creating an effective learning environment, and barriers influencing students’ learning were addressed in the study (Wong, 2018, p. 153). The initiative learning theme addressed the student’s need to be responsible for delegating the tasks needed to complete the group work (Wong, 2018). The interactive group dynamic theme was found to be an essential element allowing students to share their thoughts and interpretations on the assignment (Wong, 2018). Wong (2018) addressed the student’s preference for choosing group members to establish an effective learning environment. Students who already have an understanding of a group member’s strengths and weaknesses could aid in developing a productive group dynamic that can meet task objectives in a quicker time frame. Lastly, educators must be aware of the conflicts that influence learning in groups. Students stated that a large amount of group work could impede their overall learning process (Wong, 2018), emphasizing the importance of incorporating other instructional methods with group work. Students also emphasized the importance of the educator identifying group work goals and expectations to ensure passive group member understanding (Wong, 2018). Overall, nursing students in Wong’s (2018) study deemed group work learning as a beneficial strategy. Nevertheless, additional studies identified group work as the least preferred activity of millennials (Barnes & Jacobsen, 2015; Hampton et al., 2017). Because the studies continue to contradict one another, more research is needed to investigate these findings further.
Traditional Teaching Methods

According to Billings and Halstead (2020), traditional teaching strategies are described as lectures, the use of PowerPoint slides, objective testing, and written papers. The traditional teaching methods align with the pedagogical model, which focuses on instructor-led teaching strategies. Based on the millennial student’s characteristics some research has identified the millennials’ preference for teamwork, multitasking, and more active involvement in their learning using technology-based methods (Desy et al., 2017; Erlam et al., 2016; Jiang et al., 2018; Montenery et al., 2013; Skrable & Fitzsimons, 2014; Toothaker, 2018). However, contradicting literature identified millennial students’ preference for self-reliance in accomplishing learning tasks and their overall enjoyment of and benefit from instructor involvement in the learning process (Battle & Tyson, 2018; Cantrell & Farer, 2019; Robb, 2016). With these contradictions in mind, literature was reviewed to evaluate the need for a lecture-based learning environment.

The nursing classroom continues to move away from traditional lecture methods with the integration of technological approaches (Shin et al., 2015). However, some literature has suggested millennial learners continue to prefer the traditional lecture teaching strategy (Barnes & Jacobsen, 2015; Pettit et al., 2017; Young & Seibenhener, 2018). Barnes and Jacobsen (2015) studied the preferences of millennial learners in a business major. In the first study, researchers investigated the preferences of 83 business students exposed to classroom activities utilizing lectures, visual media, and group work (Barnes & Jacobsen, 2015). They reported that over half of the students preferred lectures to other activities (Barnes & Jacobsen, 2015). The participants in the group noted that while they enjoy technology, its integration did not improve the students’ ability to learn the concepts (Barnes & Jacobsen, 2015). The study by Barnes and Jacobsen...
(2015) indicated that the students disliked all group work and questioned its value in the learning process. These findings contradict other literature that identified team-based learning as a beneficial learning tool for millennial students (Desy et al., 2017; Montenery et al., 2013; Stephens & Gunther, 2016).

Barnes and Jacobsen (2015) conducted a second study in which 120 business students were broken into two groups. Since the first study revealed visual media and lecture as preferred teaching methods, the second study compared the two approaches. One group was exposed to a classroom with lectures only, while the other group was exposed to both lectures and visual media (Barnes & Jacobsen, 2015). According to the study, the traditional lecture without visual media was the preferred educational activity (Barnes & Jacobsen, 2015). Students noted that visual media integration helped with the overall enjoyment of the presentation but did not influence overall learning of the concepts (Barnes & Jacobsen, 2015). With the millennial student’s noted technology-savvy nature, the findings from the study were surprising and indicated that additional research is needed (Montenery et al., 2013).

Another study (Pettit et al., 2017) investigated millennial medical students’ preferred teaching methods. Medical students were exposed to two classrooms; the first classroom utilized a flipped classroom concept 75% of the time during the length of the course (Pettit et al., 2017). The flipped classroom consisted of students listening to lectures and completing reading assignments outside of the classroom, with classroom time focused on hands-on activities and other active learning strategies. The other classroom utilized the flipped classroom environment only 5% of the allocated length of the class (Pettit et al., 2017). After students were exposed to each course, they were asked to complete a survey about their experiences. Over half of the students preferred the lecture-based classroom over the flipped classroom integration, concluding
that the traditional method of a lecture cannot be extinguished as a preferred teaching method of millennial learners (Pettit et al., 2017). Similar to the study by Barnes and Jacobsen (2015), the research did not focus on nursing students but did provide further information relevant to the preferences of the millennial learner.

Additional studies focused on nursing students’ perspectives regarding their preferred teaching methods (Delahoyde, 2009; Young & Seibenhener, 2018). The dissertation by Delahoyde (2009) investigated the learning preferences of Generation X and Generation Y nursing students. Delahoyde (2009) provided a historical perspective for millennial learners’ preferred instructional methods. Although Delahoyde (2009) and Young and Seibenhener (2018) conducted their studies nearly a decade apart, their findings similarly noted millennial students’ preferences for lecture-based instruction. While the results favored the traditional pedagogical strategy of lecture, Delahoyde (2009) theorized that the instructor’s comfort with the methods might have influenced the students’ choice. With the majority of nurse educators belonging to the baby boomer or X generations, instructors may use teaching methods they were exposed to in their educational journeys. For example, if nurse educators are familiar with delivering content through lectures, instructors may not be comfortable or have adequate training to utilize technology-driven instructional methods. Delahoyde (2009) noted that educators’ comfort with a delivery method could influence students’ learning.

Young and Seibenhener’s (2018) study was one of the few to discuss the instructional preferences of an associate degree nursing student, applicable to this study. That study exposed 90 students to various teaching methods, including traditional lectures and the flipped classroom approach utilizing prerecorded lectures (Young & Seibenhener, 2018). Similar to other literature (Barnes & Jacobsen, 2015; Pettit et al., 2017; Young & Seibenhener, 2018), the study noted that
over half of the students surveyed preferred lecture-based teaching. Nevertheless, their study did reveal the students’ preference for prerecorded lectures but described the students’ dislike for the flipped classroom approach (Young & Seibenhener, 2018). The study did not reveal the aspects that students disliked about the flipped classroom, making it challenging to decipher whether students preferred the traditional lecture method because students did not enjoy the recorded lectures or the in-class active learning environment. That said, other studies noted the millennial student’s preference for the traditional teaching method of lecture mixed with active learning strategies (Hampton et al., 2017; Phillips & Trainor, 2014). With contradictory research findings, the author was led to investigate teaching methods that combined technology and traditional lecture.

**Mixed Teaching Methods**

While a millennial students’ characteristics point to the need for innovation and technology-driven strategies, studies have also noted the advantages of lecture-based instruction (Barnes & Jacobsen, 2015; Delahoyde, 2009; Pettit et al., 2017; Young & Seibenhener, 2018). While incorporating students’ learning preferences is vital to encourage engagement, it is more crucial to ensure that students learn from whichever teaching method is chosen. While some literature (Barnes & Jacobsen, 2015) identified students’ lack of learning using recorded lectures, conflicting research described recorded lectures as a beneficial teaching method for millennials because of the integration of technology mixed with the traditional lecture (Hampton et al., 2017; Phillips & Trainor, 2014). When PowerPoint began to enable faculty members to voice-record on slides, lecture delivery began to transform into a technology-based instructional method (Phillips & Trainor, 2014). Technology provided the opportunity to produce a recorded instructor-led lecture accessible to students and conducive to their study time. Perhaps the
mixture of the two teaching methods using technology and the traditional lecture is beneficial for millennial learners.

Billings and Halstead (2020) asserted that the virtual classroom has forced students to utilize various strategies to enhance their learning. Hampton et al. (2017) investigated millennial nursing students’ preferred methods of learning in online programs. While that study focused on online teaching methods, it also identified those methods generally preferred by millennial learners (Hampton et al., 2017). As undergraduate nursing programs integrate more online courses, it is essential to understand the learning preferences of the group in an online classroom. The study revealed that students preferred PowerPoint lectures with voice recording (Hampton et al., 2017). Hampton et al. (2017) noted that students’ least preferred method was group projects or team-based learning assignments; this finding conflicted with other research that indicated team-based learning was a favorite teaching method of millennial students (Desy et al., 2017; Montenery et al., 2013; Stephens & Gunther, 2016).

An additional review of the literature produced two studies that investigated the preferred teaching methods of nursing students with the design focused on the educator's role in the integration of the instructional process. While one of the studies (Toothaker & Taliaferro, 2017) focused on the millennial nursing students’ response, the other study (Robb, 2016) did not limit nursing students' participation based on their birth year. Toothaker and Taliaferro (2017) utilized a phenomenological approach toward the study to provide them with insight into the lived experiences and perspectives of the millennial generation. Thirteen interviews were conducted for the research and concluded that faculty engagement was an essential element that influenced the nursing student’s preference for a teaching method (Toothaker & Taliaferro, 2017). The
study showed that traditional and active learning strategies combined resulted in better student engagement and overall learning (Toothaker & Taliaferro, 2017).

Nurse educators must plan to utilize a variety of teaching approaches to reach all types of learners. Robb (2016) identified the importance of faculty using short, recorded lecture bursts to assist students in understanding content; however, integrating experiential learning activities enhanced student understanding. The study discussed the importance of student self-efficacy in the learning process (Robb, 2016). Self-efficacy, in this context, refers to students’ ability to engage in the activities or behaviors required to learn the material successfully. For example, when a student can understand and apply a concept correctly, the result is a positive belief system. The traditional lecture format provides the student with the content, while the integration of technology offers an opportunity for active engagement reinforcing the students’ beliefs in their abilities.

The flipped classroom enables educators to utilize active learning techniques to enhance student engagement. Phillips and Trainor (2014) surveyed 125 accounting students who participated in a flipped-classroom approach. Their findings align with andragogy theory and ELT in revealing the learner’s need for active engagement in the learning process (Knowles et al., 2015; Phillips & Trainor, 2014). Students expressed that the recorded lectures were valuable to their learning because the ability to replay the lectures enabled them to review content they did not initially understand (Phillips & Trainor, 2014). The students also liked having time to review skills or complete case studies in the classroom, where they could ask the instructor questions (Phillips & Trainor, 2014). While Phillips and Trainor (2014) identified student preference for the flipped classroom, their study also noted that it was difficult for educators to make the transition from traditional in-class lessons because of their familiarity and comfort using that
method. While both Phillips and Trainor (2014) and Robb (2016) outlined the importance of educators utilizing a mixture of traditional and active teaching strategies to aid nursing students, research studies continue to report contradictory findings. Therefore, further research is warranted to support educators by identifying instructional methods that will best enhance millennial learners’ success.

**Synthesis of the Research Findings**

The literature review resulted in the identification of three themes: innovative or technology-driven teaching methods, traditional teaching methods, and mixed teaching methods. A literature review of nursing students’ and millennial learners’ preferred instructional strategies resulted in contradictory information. Some of the literature identified the need for educators to integrate more technology-driven teaching methods into the nursing classroom (Desy et al., 2017; Erlam et al., 2018; Erlam et al., 2016; Montenery et al., 2013; Reynolds, 2017; Shin et al., 2015; Skrable & Fitzsimons, 2014; Stephens & Gunther, 2016; Toothaker, 2018); other literature argued that traditional methods were the most beneficial learning tool (Barnes & Jacobsen, 2015; Delahoyde, 2009; Pettit et al., 2017; Young & Seibenhener, 2018). Additional articles noted a combination of strategies as the most preferred instructional method (Hampton et al., 2017; Phillips & Trainor, 2014; Robb, 2016; Toothaker & Taliaferro, 2017). With contradictory research identified, additional research related to the topic may prove beneficial.

The majority of the studies reviewed employed a quantitative methodology approach (Delahoyde, 2009; Hampton et al., 2017; Montenery et al., 2013; Pettit et al., 2017; Phillips & Trainor, 2014; Reynolds, 2017; Robb, 2016; Stephens & Gunther, 2016; Young & Seibenhener, 2018). In those studies, the researchers gave surveys to students to rank their preferred teaching methods and presented only a limited discussion of why or how the instructional techniques were
used or how student learning was enhanced or hindered by the use of a given method. There is only limited literature in which students are asked about commonly identified teaching methods used in ADN classrooms. While Young and Seibenhener (2018) focused on the ADN population using a quantitative methodology, the study did not provide an opportunity for clarifying questions. Determining why students ranked traditional lectures as their favored teaching method may be helpful to nurse educators.

Few studies utilized a qualitative approach that enabled students to share their opinions or experiences on a topic (Jiang et al., 2018; Toothaker & Taliaferro, 2017; Wong, 2018). While both Jiang et al. (2018) and Toothaker and Taliaferro (2017) focused on millennial students’ lived experiences with learning, their studies did not specifically explore student experiences with innovative or technology-based instructional methods (Jiang et al., 2018; Toothaker & Taliaferro, 2017). The results of the studies (Jiang et al., 2018; Toothaker & Taliaferro, 2017) focused on the significance of the students’ sense of belonging to the group as a critical element of learning in the nursing classroom and did not directly align with the research question within this study. Wong (2018) focused extensively on the participants’ perceptions of group work. However, the study focused on BSN students and did not exclusively focus on millennial-born students.

Understanding millennial students’ preferred instructional methods in an ADN program is essential to improving the delivery of nursing education; however, that element is lacking in the literature reviewed. The use of students’ preferred teaching methods fosters learning, leading to a better understanding and application of the material learned and facilitating successful academic progression. With the continued nursing shortage, students’ knowledge and application can significantly impact the nursing workforce.
Critique of the Previous Research Methods

Various research methodologies exist for investigators to utilize, and the method must align with the proposed study (Merriam & Tisdell, 2016). Both quantitative and qualitative methodologies have a place in educational research; however, each method provides a different insight. The literature reviewed provided an analysis of quantitative, qualitative, and mixed methods research.

Quantitative Research Critique

A quantitative study utilizes statistical or numerical data to provide research information (Merriam & Tisdell, 2016). Quantitative studies commonly use surveys to aid in data collection processes (Leeman & Sandelowski, 2012). The quantitative research methodology was noted as the most prominent data collection method in the literature reviewed. The quantitative studies focused on students’ rankings of preferred instructional practices, but their methodology did not provide insight into the reasons for those preferences (Delahoyde, 2009; Hampton et al., 2017; Montenery et al., 2013; Phillips & Trainor, 2014; Reynolds, 2017; Robb, 2016; Stephens & Gunther, 2016; Young & Seibenhener, 2018).

Delahoyde (2009) used a quantitative methodology to help answer the question of “What types of teaching methods do different generations prefer in BSN programs?” (p. 21). In that study, 329 undergraduate nursing students used a survey to identify their top five instructional methods (Delahoyde, 2009). The results identified lectures as the favored teaching method above simulation and other active learning strategies (Delahoyde, 2009). Group work was noted as one of the least preferred teaching methods (Delahoyde, 2009). The study was limited to BSN students with a recommendation that a similar study be conducted with ADN programs (Delahoyde, 2009).
Hampton et al. (2017) conducted a quantitative study focused on nursing students’ preferred methods of learning in online programs. The study included 217 nursing student participants who were enrolled in an online nursing course (Hampton et al., 2017). The collected survey results identified the preferred teaching method as a recorded PowerPoint lecture (Hampton et al., 2017). While the use of PowerPoint with a recorded voiceover integrates the use of technology, this instructional method incorporates traditional lectures to provide content. The study noted that the combination of the traditional and technology-based teaching methods enhanced learning (Hampton et al., 2017). Twenty percent of the students participating in the study identified themselves as millennial learners. Millennial students were found to prefer PowerPoint lectures with voiceover as their preferred teaching methods; however, millennials also identified gaming and simulation as other beneficial learning strategies (Hampton et al., 2017). The study (Hampton et al., 2017) also noted that millennials’ preference for synchronous methodologies was more pronounced than that of the other generations, contradicting the andragogy notion that adult learners prefer self-directed approaches.

Stephens and Gunther (2016) surveyed 70 BSN millennial students regarding their thoughts about the use of Twitter in nursing education. The study found that Twitter was an effective way of delivering content to students (Stephens & Gunther, 2016). While the integration of Twitter as a content delivery tool aligns with the millennial generation’s characteristics of technology use and immediate feedback, the study results were not found to be statistically significant (Stephens & Gunther, 2016). While the findings aligned with the assumed preferences of millennial learners, the lack of substantial data jeopardizes the related conclusions. Stephens and Gunther (2016) recommended that further studies analyze strategies that would increase student participation and interaction.
Young and Seibenhener (2018) conducted a quantitative pilot study to aid in determining ADN students’ preferred teaching strategies. While their study did not specifically address millennial students’ teaching preferences, the survey did ask students for their age, and asked students to rank the following teaching strategies in order of preference: lecture, flipped classroom, simulation, web-based training, and interprofessional collaboration (Young & Seibenhener, 2018). More than half of the students surveyed (N=49) identified lectures as the preferred teaching method, with simulation often chosen as the next preferred method of learning (Young & Seibenhener, 2018). Young and Seibenhener (2018) suggested conducting future studies that focused on favored teaching strategies that aided student learning and success. With findings in the quantitative studies providing a mixed review of the preferred instructional methods of students surveyed, the qualitative methodology-based studies were reviewed.

**Qualitative Research Critique**

A qualitative research methodology focuses on understanding the participant’s experiences within the framework of the study (Merriam & Tisdell, 2016). The qualitative method utilizes the researcher as the data collection tool, enabling the investigator to collect information regarding the participant’s experiences (Percy et al., 2015). Only two qualitative studies, Jiang et al. (2018) and Toothaker and Taliaferro (2017), were identified in the literature as having research topics similar to the present study.

Jiang et al. (2018) presented the results of a qualitative study using a phenomenological approach. Merriam and Tisdell (2016) described people who review the elements of phenomenology argue all qualitative studies have a phenomenological approach because the focus of the investigation is on the participant’s experiences. However, phenomenological research digs into the participant’s emotions and affect related to the experiences (Van Manen,
The Jiang et al. (2018) study, conducted with 16 millennial nursing students, explored the students’ perspectives on effective teaching strategies used in their clinical areas. Data saturation occurred after the 16 interviews with no new information emerging. Jiang et al. (2018) determined that millennial students preferred technology use as a teaching strategy. The study aligned the preference for technology with millennial students’ affinity for the technological world in which they grew up. With the study focused on strategies used in a clinical setting, the results may not apply to the classroom setting.

Toothaker and Taliaferro (2017) conducted a qualitative phenomenological study to investigate the lived experiences of millennial nursing students in a traditional BSN classroom. Through interviews with 13 BSN students, five themes emerged: physically present and mentally dislocated, unspoken peer pressure, passive learning/surface learning, wanting more from professors/unengaging professors, and lack of trust (Toothaker & Taliaferro, 2017, p. 347). The physically present theme indicates millennials’ preference to be in the classroom, but also that identified distractors can hinder overall learning (Toothaker & Taliaferro, 2017, p. 347). Unspoken peer pressure emphasizes the need for more active instructional strategies, such as clickers, that may be used to protect student confidentiality (Toothaker & Taliaferro, 2017, p. 347). Surface learning refers to millennial students’ need to avoid memorization in favor of other, more engaging activities. The wanting more from professors theme described the need for teachers to use active teaching strategies such as case studies and simulation to teach content in conjunction with the traditional methodologies (Toothaker & Taliaferro, 2017, p. 347). The lack of trust theme addressed the need for educators to integrate new and innovative teaching strategies along with traditional lectures to teach information pertinent to their role as nurses (Toothaker & Taliaferro, 2017, p. 347). Toothaker and Taliaferro (2017) recommended
repeating the study with a different millennial group; therefore, the need for a similar study using an ADN millennial group was identified.

Both of the qualitative studies analyzed reflected the need for educators to utilize more innovative and active teaching strategies while adhering to some of the traditional methods. Both studies recommended future evaluations of teaching methods used in nursing education. A further critique of a mixed methods research study was concluded to establish evidence using all methodological perspectives.

**Mixed-Methods Research Critique**

A mixed-method study refers to the utilization of both quantitative and qualitative data (Holcomb & Hickman, 2015). Mixed-method research provides the statistical data results utilized in a quantitative study while integrating the participants’ subjective responses as in a qualitative study. This form of research capitalizes on the strengths of each type of research while compensating for their limitations (Holcomb & Hickman, 2015).

Toothaker (2018) used a mixed-methods approach in a study to assess the effect of millennial BSN students’ use of clickers on learning when the clickers were integrated into a traditional lecture series. Students were asked to utilize clickers with their lectures each week in each nursing course. At the end of each class, students were asked to complete a survey to rate their level of agreement regarding the clickers’ influence on their learning (Toothaker, 2018). The ten-item, 5-point Likert scale survey provided a comment area for students to share their perceptions of the use of clickers as a teaching method (Toothaker, 2018). Ninety-nine students participated in the study, with 90% of students agreeing or strongly agreeing that clickers benefitted their learning (Toothaker, 2018). The research documented that clickers not only enhanced student learning but increased student engagement while providing anonymity.
Toothaker (2018) recommended additional studies to examine the new generation’s perspectives on active learning strategies.

**Theoretical Framework Critique**

This study investigated the preferred instructional methods of millennial students in an ADN program and examined student experiences with varied instructional strategies, something that has not been documented to date in the literature. The andragogy theory asserts that adult learners prefer to be self-directed in their learning (Knowles et al., 2015). However, the preference for face-to-face lectures identified in some of the studies does not align with a self-directed teaching method. ELT recognizes the influence of students’ backgrounds and experiences on the ways they learn (Knowles et al., 2015). For example, group learning is a noted characteristic of millennial learners, yet some research identified group work as one of the least preferred teaching strategies (Barnes & Jacobsen, 2015; Delahoyde, 2009; Hampton et al., 2017). With conflicting studies indicating a variety of teaching preferences of the millennial generation, this study could help support a particular instructional method, aligning with the theoretical frameworks reviewed.

**Summary**

In summary, the literature review of preferred instructional strategies of both nursing students and millennial learners resulted in contradictory information. While some of the literature identified the need for educators to integrate more technology-driven teaching methods into the nursing classroom (Desy et al., 2017; Erlam et al., 2018; Erlam et al., 2016; Montenery et al., 2013; Reynolds, 2017; Shin et al., 2015; Skrable & Fitzsimons, 2014; Stephens & Gunther, 2016; Toothaker, 2018), other studies argued that traditional methods were the most beneficial learning tools (Barnes & Jacobsen, 2015; Delahoyde, 2009; Pettit et al., 2017; Young &
Seibenhener, 2018). Yet, the third set of articles suggested that a combination of strategies was the preferred instructional method (Hampton et al., 2017; Phillips & Trainor, 2014; Robb, 2016; Toothaker & Taliaferro, 2017). Using students’ preferred teaching methods can improve overall learning and the application of concepts (Montenery et al., 2013). Nursing education must take the necessary steps to retain millennial learners and produce more nurses in the workforce (Peck, 2013). One way that nurse educators can aid in student retention is by integrating students’ preferred instructional methods. Therefore, research must focus on millennial students’ preferred teaching methods and why students find those particular methods beneficial to learning. A lack of literature utilizing qualitative studies of ADN students provided a gap for this study.
CHAPTER 3. METHODOLOGY

This chapter discusses the basic qualitative methodology used to guide the study and answer the research questions. Chapter 3 repeats some of the material found in Chapter 1 but with significantly more detail. Chapter 3 includes the purpose of the research, which focuses on millennial nursing students’ experiences with instructional methods in an ADN program. This chapter addresses the kinds of data required to answer the research question and the procedures used to collect and analyze that data. Chapter 3 identifies the target population and sample, details the participant selection and protection processes used during the study, identifies an expert review of the interview questions, describes the data collection and analysis procedures and instruments used, and lastly addresses the researcher’s role in this basic qualitative study.

Purpose of the Study

The main purpose of this basic qualitative study was to develop a greater understanding of millennial students’ experiences with instructional methods that enhanced or created barriers toward their learning in an associate degree nursing program. Understanding the instructional techniques that enhance millennial nursing students’ learning can influence the strategies used by nurse educators. Since millennials are the largest generation found in nursing programs, it is essential to understand this generation’s experiences with different instructional methods (Peck, 2013). Examining the experiences of this student population could ultimately influence student success, program retention, and the nursing shortage.

The literature clearly points out disparities among the millennial generation’s instructional preferences by noting both technology and traditional methods as strategies that enhance student learning. The disputed findings can influence the instructional methods the educator uses, unquestionably impacting student success and retention. The literature reviewed
(Erlam et al., 2018; Ferszt et al., 2017; Montenery et al., 2013) primarily focused on the undergraduate BSN student; however, the ADN student enrollment continues to increase with little research on this student population. AACN (2019) reported that from 1980 to 2008, the percentage of nurses with BSNs rose by over 14 percentage points from 22% to over 36%, while the number of nurses with ADNs rose by 18 percentage points, to reach almost equal numbers as the BSNs. AACN (2019) also stated that nursing students comprise over half of all health professional students. These statistics support the need to study this population and for additional literature exploring the instructional methods that enhance the learning of ADN students.

**Research Questions**

**Primary Research Question**

The central question guiding this research study was, What instructional methods do millennial students identify aided in their learning within an associate degree nursing program?

**Subquestion**

The subquestion asked, What instructional methods do millennial nursing students describe as possible barriers to their education?

**Research Design**

A qualitative methodology was selected to explore the preferred instructional strategies of associate degree nursing students who belong to the millennial generation. The research question asks millennial students to share those instructional methods that were beneficial and those that were least effective in their learning process. Fewster-Thuente and Batteson (2018) described the purpose of a qualitative study as understanding the participants’ perceptions, beliefs, or experiences; therefore, the qualitative methodology is appropriate for the study. In
this study, the researcher identified the instructional methods that millennial nursing students in ADN programs believe helped and hindered their learning.

The study employed Corbin and Strauss (2008) and Merriam and Tisdell (2016) as guides for conducting basic qualitative research. Corbin and Strauss (2008) described how basic qualitative research design depends on subjective data collection from research subjects. The central research question asks students about the instructional methods that were beneficial to their learning in an ADN program. Merriam and Tisdell (2016) described the focus of basic research design on how participants interpret their experiences. The qualitative philosophy is identified as interpretivism. Interpretivism enables students to explain their experiences and ideas on a particular subject (Ormston, Spencer, Barnard, & Snape, 2013). For this study, students interviewed were able to identify the teaching strategies they believed contributed or hindered their learning success.

This basic qualitative study also integrates the constructivist research model, one of the more modern theoretical perspectives, to aid the research framework. Knowles et al. (2015) identified constructivism as the way a person constructs the meaning of their experiences. The research topic aligns with the basic qualitative research design and the constructivism model because it focuses on understanding the millennial students’ experiences using a variety of instructional methods (Mattar, 2018). The study probed nursing students to speak about their experiences with different instructional strategies. As millennials are a predominant student population, it is critical to understand the methods that aid the learning of the millennial student group to meet the future needs of the nursing profession. This study contributes to the field of nursing by expanding previously limited research regarding the instructional methods that enhanced the learning of millennial nursing students in ADN programs.
Merriam and Tisdell (2016) emphasized the importance of the researcher’s role in a basic qualitative study as one that makes observations and is the primary instrument used in the data collection process. The researcher utilized semi-structured interviews to enable students to share their experiences with different instructional methods. Merriam and Tisdell (2016) identified the use of a semi-structured interview as a helpful tool in qualitative research because it allows the researcher to be guided by a list of questions while providing flexibility in the wording to enable the gathering of additional information pertinent to the study. This study utilized a semi-structured face-to-face interview strategy using pre-determined open-ended questions to acquire data from 12 ADN students born to the millennial generation. Based on each student’s responses to proposed interview questions, the semi-structured interview process enabled the researcher to further question participants to develop clarity and understanding regarding their answers.

Interview answers provided by the participants were recorded using a password-protected USB recording device and transcribed using the Dragon Naturally software and manual revisions. After interviews concluded and findings established, a member check was completed. The member checks allowed interview participants to review the initial findings, analyze the results for truth while determining if any biases exist, and provide feedback to the researcher (Merriam & Tisdell, 2016). Therefore, the transcribed interviews were emailed to the appropriate student participants to ensure the validity and accuracy of their responses.

The data analysis process began with the initial participant and continued until data saturation was reached, and no additional themes were identified. The data obtained using the qualitative methodology were coded and analyzed for emerging themes. Percy et al. (2015) identified the need for researchers to utilize a continuous comparison analysis to prevent errors in the research process. Therefore, both the thematic analysis and constant comparison models
were used to direct data collection and analysis procedures when utilizing this basic qualitative
design (Braun & Clarke, 2006; Saldaña, 2013). Using the constant comparison tool enables the
researcher to make a comparison between what was said and written. The ongoing analysis of
the data collected from the participant interviews helped guide the study by identifying key terms
that were categorized into codes and themes answering the research questions. Since the goal
was to answer the research questions by identifying the instructional methods that helped or
hindered millennial nursing students learning in an ADN program, the basic qualitative research
design was appropriate for this study.

**Target Population and Sample**

Qualitative research studies must utilize a population where the data is most credible and
aligns with the research question (Corbin & Strauss, 2008). For this study, ADN students
possess the knowledge to answer the research questions posed. There is a lack of literature
regarding millennial nursing students’ preferred instructional methods in an ADN program.
Some studies examine millennial students’ preferred teaching methods in a bachelor’s degree
setting, but few studies investigate the experiences of associate degree millennial nursing
students (Young & Seibenhener, 2018). Since the millennial generation is the most prominent
student group in ADN programs, it is imperative to identify their experiences with different
learning strategies and recognize those strategies that the students believe promote learning and
success (Petges & Sabio, 2020).

**Population**

The large population of the research study is nursing students enrolled in an ADN
program. The target population in this study is specific to millennial nursing students currently
enrolled in an ADN program located in the Midwest. The sample of the population was one that
self-reported as a millennial (born from 1980 to 2000) and currently enrolled in an ADN program.

Sample

The researcher used a typical nonprobability sampling strategy using a purposeful design. A purposeful sampling design is commonly used in qualitative research because participants are selected based on the particular experiences or backgrounds that the researcher wants to study (Palinkas et al., 2015). For this study, a criterion-based purposeful design was used. Students were asked to participate if they were both currently enrolled in an ADN program and born within the millennial generation years of 1980–2000. Merriam and Tisdell (2016) explained that purposeful sampling is chosen because it reflects the average person; therefore, since millennial students comprise the majority of nursing classrooms, the sample is not unique and fits the need for a purposeful sampling strategy (Peck, 2013; Petges & Sabio, 2020).

The sample must be large enough to answer the research question and reach data saturation (Merriam & Tisdell, 2016). Malterud, Siersma, and Guassora (2016) addressed the importance of researchers understanding that data saturation is not reached until the specific aim of the research study is met. Therefore, researchers must identify and highlight those concepts that relate to the research question. This qualitative study conducted interviews with participants until repetitive themes were noted (Vasileiou, Barnett, Thorpe, & Young, 2018). The decision to include 12 participants for the research study was based on the need for the sample size to be large enough to uphold a credible study by meeting data saturation criteria and a review of other qualitative studies. Researchers are unable to predict with certainty the required participant sample size; however, a review of similar qualitative research studies (Cantrell & Farer, 2019; Jiang et al., 2018; Luhanga, 2018) was conducted to aid in the determination of a predicted
sample size population and was noted to be between 6 and 20 participants. The sample size of 12 participants was within the sample sizes found in literature and adequate to answer the research questions with no new information being acquired.

**Procedures**

The target population of this study was nursing students born between the years of 1980 and 2000 and currently enrolled in an ADN program. A purposive sample was used to ensure the research questions were answered. The following paragraphs discuss the selection and protection of participants during the study and address the data collection and analysis measures utilized.

**Participant Selection**

A purposeful sampling was used for the study. A purposeful sampling design is commonly used in qualitative research because participants are selected based on particular experiences or backgrounds that the researcher wants to study (Palinkas et al., 2015). Therefore, the purposeful sample was students currently enrolled in an ADN program.

All members of the larger population were initially contacted using an oral recruitment method at a Midwestern community college. The Midwestern community college has two campuses where the ADN curriculum is taught. The researcher went to each associate degree classroom and read an oral recruitment script. Prepared flyers were distributed to the ADN students with the study information, requirements, and the researcher’s contact information. Also, the flyer was posted for students to view in the ADN classroom. The contact information did not have tabs to protect potential participant confidentiality by not having them publicly tear off tabs in the front of other students (Essex, 2004). Participants selected were expected to meet the inclusion criteria: (a) born in 1980–2000, and (b) currently enrolled in an ADN program.
The following recruitment steps were completed:

1. A site permission letter was sent to the Midwestern community college(s). The permission letter identified the research topic and outlined the research activities that would take place with the participants.

2. Institutional Review Board (IRB) approval from the Midwestern community college(s) was obtained. Permission was granted to conduct the research study, with access to the directors of the ADN program via their email addresses, distribution of recruitment flyers, in-person recruitment, interviews, and review of course documents.

3. Upon IRB approval, an e-mail was sent to the ADN program directors to set up times to attend an ADN classroom meeting.

4. The researcher attended the classrooms of the ADN programs on both campuses and read a prepared oral recruitment script. Flyers were handed out to the ADN students, and questions were answered from potential participants. The prepared flyer contained the study information, requirements, and the researcher’s contact information. Also, a copy of the flyer was posted for students to view in the ADN classroom.

5. An additional email was sent to the ADN program directors with the study information, eligibility requirements, and contact information that was provided verbally in the face-to-face meeting.

6. The directors of the ADN program distributed an email containing the study information, eligibility requirements, and contact information to the currently enrolled ADN students.

7. Interested volunteers emailed, phoned, or met face to face with the researcher.

8. The researcher set up a meeting in person or by phone with each volunteer to review the eligibility (currently enrolled ADN student, born in the millennial generation years of 1980–2000). The researcher reviewed the study topic and answered any questions from the prospective participants who met the eligibility requirements.

9. After reviewing information about the study with the prospective participants and providing an opportunity to ask questions about the study, the researcher asked potential participants if they were interested in participating in the study.

10. Potential participants who agreed to participate in the study were asked to provide their mailing address, phone number, and email address for contact purposes. The researcher then made an appointment to interview the volunteer.

11. After the volunteers verbally agreed to participate in the study, the researcher emailed a consent form and the pre-interview questions to the potential participant at least 24
hours before the scheduled interview time. The consent form detailed the study eligibility requirements, risks, and the purpose of the study. The consent form included the researcher’s contact information if the potential participant had further questions about the study.

12. Upon the volunteer’s arrival to the interview appointment, the consent form was reviewed. An opportunity for additional questions was allowed. If there were no further questions, the participant proceeded to sign the form with the researcher present.

13. The researcher conducted interviews with each of the participants.

**Protection of Participants**

The researcher abided by the ethical principles and regulations outlined in the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). An IRB approval of the research plan was obtained from both Capella University and the community college participating in the study. Participant selection through the study was solely voluntary. The informed consent identified the purpose of the research study and described the opportunity each participant had to remove themselves from the study at any time. All participants signed the consent to participate in the study. Nursing students born to the millennial generation do not meet the criteria of a vulnerable population.

The nursing program utilized for this study was a past employer of the researcher. Some of the participants were known to the researcher; however, the researcher was no longer employed by the participating institution at the time the study was conducted. Therefore, the researcher was neither in a position of authority nor had an instructor-student relationship with the participants.

**Expert Review**

The guiding interview questions were subjected to a field test by three experts before their use. The field test requests were emailed to three nurse educators who have experience
teaching in an associate degree nursing program. Two of the nurse educators had greater than ten years of nursing education experience and hold a Master of Science in Nursing degrees. One of the nurse educators has taught in an ADN program for over 18 years and holds a BSN degree. Feedback from the experts was supportive of the interview questions with minor editorial revisions suggested. One of the experts identified the need for the pre-interview question document to define millennial characteristics for participants to review (see Appendix). Reviewing the definition may enable students to respond better to questions based on their understanding of those characteristics and the influence those characteristics have on their preferred instructional strategies. The defined characteristics of a millennial were placed on the pre-interview document for participants. After the experts’ recommendations were adopted, the reviewers approved of the interview questions.

Data Collection

Data collection for the research study was obtained through semi-structured interviews. The semi-structured interview approach provides the researcher with flexibility in questioning that may facilitate detailed accounts of the participant’s experiences (Merriam & Tisdell, 2016). While the semi-structured interview promotes flexibility, the interview utilized preset interview questions that were asked of each participant.

The qualitative researcher maximized the data collection result validity using triangulation. Merriam and Tisdell (2016) described the integration of triangulation to validate the data collection processes through a review of three different data points. While qualitative studies rely on participants’ interview statements as a form of data collection, other types of data collection strategies may be used to validate that information. Before the interview, participants in the study were given a set of questions to answer about their millennial characteristics and the
learning activities from which they learned the most and the least. Probing interview questions were added based on student responses to the pre-interview questions. The second data collection point was provided by asking participants the open-ended preset interview questions that supported the research questions. The third data collection method reviewed the course syllabi from the student’s identified course to determine if the teaching strategy noted as beneficial was identified in the syllabi of the course. The document review substantiated the participant’s statements made during the interview by supporting or opposing those statements.

All interviews were conducted face-to-face in a secure location convenient to the student. Each interview was approximately 8–20 minutes in length. The length of the interviews depended on the participants’ detail and depth of experiences with instructional methods in their ADN program.

Confidentiality was a critical element within the study. The researcher utilized safeguards throughout the research study process to provide and maintain confidentiality. First, the researcher was clear with participants about the extent of participant protection used throughout the study outlined in the consent form. Participants were informed that their interviews would be recorded using an encrypted password-protected USB device and stored on a password protected device that does not use their name in the file. Secondly, the researcher used alphanumeric coding (P1, P2, etc.) to protect each participant’s confidentiality in study documents and reference materials. Lastly, students were informed that the research material is kept for seven years. After the allocated time frame, the computer data will be deleted using a software sanitization program to delete all data information collected during the study. Deletion and destruction of the encrypted data on the password-protected storage device will erase all information collected for the study.

60
Data Analysis

Following the data collection process, data analysis was performed. The purpose of qualitative data analysis is to identify patterns and themes from data collected (Merriam & Tisdell, 2016). While data were collected, the constant comparison method was used. Constant comparison enabled the researcher to make a comparison between what is said and written ensuring the accuracy of the information obtained (Percy et al., 2015). Thematic analysis and constant comparison direct researchers on data collection and analysis procedures when utilizing a basic qualitative design (Percy et al., 2015). Consistent with Saldaña’s (2013) emphasis on the importance of a qualitative researcher’s use of thematic analysis, the researcher utilized the following steps.

First, the researcher transcribed all audio recordings of interviews. The interviews were transcribed using Dragon Naturally Speaking 15.0 software; however, the recordings were not found to be accurate. Therefore, the researcher listened to each interview three times to make manual revisions to each transcribed document. Each transcribed interview was sent to the participant as a Word attachment in an email for a member check. Participants were provided an opportunity to approve the transcript or identify needed revisions. None of the participants requested changes to their interview transcript.

Following the member checks, the coding process began. The initial coding strategy utilized during the data analysis process was open coding. Open coding allows researchers to identify words or phrases they believed to be relevant within the transcribed interviews (Glaser, 2016). Each interview transcript was highlighted for any terms or phrases that appeared interesting and meaningful to the topic. Saldaña (2013) identified the importance of focusing on the theoretical framework and the study’s research to aid in coding processes. Therefore, each
highlighted phrase was further analyzed for its alignment with the research question and the study’s theoretical frameworks. After the initial codes were formed, axial coding of these terms took place. Axial coding allows researchers to group the initial words and create a category (Seidel & Urquhart, 2013). Manual open and axial coding was completed in each participant’s transcript. The highlighted data that aligned with the research question were identified using a key term and then placed in categories.

After interviews were completed, the researcher analyzed data, reviewed patterns, and arranged the themes. Because qualitative research can have multiple interviews, researchers need to have ways of organizing their findings to aid them in identifying codes, categories, and themes within their study (Nowell, Norris, White, & Moules, 2017). Therefore, data analysis findings were validated and organized using NVivo 12 for Windows software. Data findings were coded to specified nodes identified via the emerging themes found through the interviews.

**Instruments**

Qualitative research is conducted by someone who has a particular interest in the field of study. Throughout the study, the qualitative researcher serves as the primary instrument for data collection (Merriam & Tisdell, 2016). The qualitative methodology utilizes the researcher as the data collection tool, enabling the researcher to collect the students’ preferred instructional strategies (Percy et al., 2015). The qualitative researcher takes an interactive approach, learning about the participants’ experiences (Percy et al., 2015).

In addition to the researcher, the interview questions served as a vital instrument for the study. An additional tool used during the research was the Dragon NaturallySpeaking 15.0 speech recognition software. Dragon NaturallySpeaking 15.0 software was downloaded to the researcher’s computer. During the interview, the software program attempts to transcribe the
meeting in real time. The USB audio recording device was used to provide an opportunity to review the interviews and make manual corrections to the transcript document. NVivo 12 is a software instrument used to aid data analysis through organization of the interview transcripts.

**The Role of the Researcher**

The researcher conducted face-to-face interviews in a location conducive to privacy and convenience for the participants. The researcher’s interviewing experience includes 17 years of nursing practice, resulting in patient and family interviews. As a nurse leader, the researcher has had 10 years of experience interviewing prospective employees for nursing education roles. As a nurse educator, the researcher became accustomed to asking questions to students regarding their preferred teaching methods. The researcher did obtain experience with interviewing for a research study assigned during doctoral course work. The Collaborative Institutional Training Initiative online modules required by Capella University enhanced research skills and addressed the protection of human subjects. In the doctoral course on qualitative research, the researcher conducted a mini qualitative study. The mini qualitative study focused on refining the research topic, completing a literature search, interviewing participants, and then transcribing and analyzing the data.

While being the primary instrument can prove beneficial during data analysis, it can also present bias concerns. Reflexivity is a term used to describe the fears qualitative researchers have regarding the need to eradicate all bias and influence from the study. Many researchers are incapable of abolishing bias entirely; however, identifying potential bias is an essential element of the research process (Maxwell, 2013). As the researcher is a nurse educator, the research topic presents some inherent bias because of personal experience teaching different generations in the classroom. The researcher’s teaching involvement has identified that students’
generational characteristics influence their varying learning experiences. Additionally, the researcher conducted interviews with students at a community college where the researcher previously was employed and taught in the ADN program. The researcher, however, avoided a situation of improper influence or conflict of interest, because the researcher has not been employed at the community college since the interviewed students’ admission to the ADN program.

The researcher’s first step is to identify the potential bias and create a plan or strategy to help decrease that element in the research (Maxwell, 2013; Smith & Noble, 2014). Two areas where unintended bias can be identified is in the wording of research or interview questions and the selection of participants. The formulation of research questions can influence the nature of the responses if the researcher is not cautious. Researchers must propose interview questions that do not add a suggestion or direct the participants to answer in a certain way (Irvine, Drew, & Sainsbury, 2013). Researchers should have colleagues read the interview questions to mitigate bias in the collection methods (Smith & Noble, 2014). Three nurse educator experts reviewed the research questions to ensure there was no bias present in the items. The study must have a selection process of interviewees that is free of bias (Smith & Noble, 2014). All participants born to the millennial generation and currently attending an associate degree program at the identified community college(s) were invited to participate in the study.

Researchers utilizing a theoretical framework to guide the goals of the research study can aid in decreasing bias (Merriam & Tisdell, 2016). Using both the andragogy theory and ELT helped to ensure the researcher did not stray away from the purpose of the study. Additionally, the researcher utilized a self-reflection process during the study. Watt (2007) described the
advantage of journaling to decrease reflexivity. The researcher wrote in a journal throughout the study to attempt to reduce biased thoughts or feelings.

**Researcher-Designed Guiding Interview Questions**

The interviews were conducted using a semi-structured interview guide. The preset guide provided a structure that focused on answering the research questions (Merriam & Tisdell, 2016). The semi-structured interview offers an opportunity for participants to share detailed responses to the topic and allows the researcher to pursue further discussion, providing additional depth and meaning to the participants’ answers. The following were the guiding questions used for the interviews:

1. In reviewing the pre-interview question document, you identified (…) as the course you learned the most from. Can you tell me what instructional methods your teacher used in that course to enhance your learning?

   **Rationale:** In the first question posed to participants, the researcher identifies the student’s needs by focusing on the participant’s response to the pre-interview document. If a student has identified a course beneficial to learning, the teaching methods used in that course would need to be identified to investigate further how they enhanced the student’s learning.

2. As a student born to the millennial generation, what teaching strategies in the associate degree nursing program did you like the best? Provide some examples.

   **Rationale:** The second question asks students to relate their millennial characteristics to their preferred teaching methods. Students learn in a variety of ways; however, studies (Montenary et al., 2013; Orkiszewski et al., 2016; Shatto & Erwin, 2017; Stephens & Gunther, 2016) have shown that generational characteristics can influence a student’s preferred learning experience.

3. What instructional strategies enhanced your learning process? Provide some examples and tell why each instructional strategy enhanced your learning process.

4. What instructional strategies were least effective in your learning process? Provide some examples and tell why each instructional strategy did not enhance your learning process.

   **Rationale:** The third and fourth questions focus not only on those experiences that the student identified as most beneficial to their learning or least effective, but also
provide a deeper analysis of the instructional strategies that students believe advanced or created a barrier in their learning process. Students may initially identify a strategy as helpful if they enjoyed that strategy; however, not every such approach may prove to benefit students’ overall learning (Young & Seibenhener, 2018).

5. Tell me about a time when your instructor used a team or group project in the associate degree nursing program.

Rationale: This guided question is an open-ended question that asks students to describe an experience with a team project. Some researchers (Bhana, 2014; Garwood, 2015; Ironside, 2015; Montenery et al., 2013; Orkiszewski et al., 2016; Shatto & Erwin, 2017; Stephens & Gunther, 2016) have identified that millennial learners prefer and enjoy group projects, while other researchers (Hanson, 2016; Phillips & Trainor, 2014) contradict that claim. Therefore, the guiding question asks the students to explain their experience and allows them to discuss whether group work benefited their learning.

6. Tell me about a time your instructor used technology as a teaching method in the associate degree nursing program.

Rationale: Studies (Litchfield & Matteis, 2016; Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018; Young & Seibenhener, 2018) indicated millennials have a preference for innovative technological teaching methods. However, some studies (Hampton et al., 2017; Pettit et al., 2017) described that students continue to prefer face-to-face lectures and become apprehensive when using advanced technology strategies such as simulation. Therefore, this question addresses the student’s perception of technology in their learning.

7. Tell me about a time your instructor used lecture as a teaching method in the associate degree nursing program.

Rationale: Like the previous two questions, the seventh guided question asks the student to describe a particular teaching method; its open-ended format allows students to express their opinions of whether utilization of lecture as an instructional method has benefited their learning. Some studies (Litchfield & Matteis, 2016; Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, & Taliaferro, 2017; Young & Seibenhener, 2018) noted that millennial students do not prefer or learn from a lecture. In contrast, other studies (Hampton et al., 2017) have identified students’ continued preference for lecture-based learning techniques.

8. In what ways do you think millennial generation characteristics relate to how you learn? Provide some examples.

Rationale: The final question asks students to express their thoughts regarding millennial students’ characteristics and to give examples of how those characteristics relate to their learning. While various research (Montenery et al., 2013; Orkiszewski
et al., 2016; Shatto & Erwin, 2017; Stephens & Gunther, 2016) described the traits of the millennial generation, only a few studies (Johanson, 2012; Montenery et al., 2013) investigated how those characteristics relate to a student’s preferred learning methods; therefore, more research is required. The last question allows the researcher to determine if the student’s thoughts regarding millennial characteristics align with the preferred learning experiences they identified throughout the interview.

**Ethical Considerations**

All potential conflicts of interest were managed throughout the study. Approval of the research study was provided by Capella University’s IRB and the IRB at the community college site. The researcher had been formerly employed with the site recruitment institution, but the community college had not employed the researcher for over one year; therefore, potential participants in the study did not have a professional or personal relationship with the researcher. The researcher had not served in the role of nurse educator with the institution since 2015; therefore, the learning and teaching experiences of the students did not cause additional bias to the researcher. The researcher is no longer employed or serving in an administrative role with the institution; therefore, a risk to the participants related to a conflict of interest does not exist. The researcher serves as an administrator at another university and ensured that the employing university did not have access to student data or personally identifying information related to the study. Participants were not asked directly to participate in the research study, decreasing the potential of coercion. Each potential participant was provided with an informed consent document that outlined the potential risks to participants and provided a statement advising participants that they were free to leave the study at any time.

Nursing students born to the millennial generation do not meet the criteria of a vulnerable population. According to Miracle (2010), vulnerable populations would include participants under 18, prisoners, or those with impaired cognition. The students participating in this study
were over the age of 18 and legally responsible for themselves; therefore, no ethical concerns were identified with this population.

Confidentiality is an essential ethical element within the study. The participants in the study remained anonymous during the recording of data using an alphanumeric coding system (P1; P2...etc...) to aid with confidentiality. The informed consent document provided to potential participants, outlined how the privacy and confidentiality of the participants would be protected. By ensuring the privacy of the study, participants are more likely to be honest in answering research questions. Each participant signed the informed consent before the researcher asked the first interview question. The researcher verified on each audio-recorded interview with the participant present that each consent document had been signed and received.

**Summary**

The purpose of this basic qualitative research study was to determine the preferred instructional methods that enhanced or hindered the learning of millennial students in an associate degree nursing program. The qualitative design was chosen to collect rich and descriptive data from the experiences of the participants. Chapter 3 described the research design, target population, the procedures used during the study, the role of the researcher, and the ethical considerations of this basic qualitative study. Chapter 4 will further explain the research and present a summary of the findings.
CHAPTER 4. FINDINGS

The purpose of this basic qualitative study was to develop a greater understanding of millennial students’ experiences with instructional methods that either enhanced or created a barrier to their learning in an associate degree nursing program. Chapter 4 describes the study, the researcher’s role, the sample of the study, the process of data analysis, the results of the analysis, and a summary of the themes found.

Introduction: The Study and the Researcher

The previous chapters provided background information necessary to understand the purpose and structure of the study. Chapter 4 presents the core of the study: the data analysis and findings. This chapter includes a summary of the researcher’s role in the study, a detailed description of the participant sample used, the methodology applied to data analysis, the data collected, and the results of the analysis.

The primary instrument of this study was the researcher who interviewed all the participants. The researcher’s interest in the millennial generation’s preferred teaching methods grew out of extensive experience instructing this group in nursing classrooms. As a past administrator overseeing curriculum development and course delivery in an associate degree program, the researcher observed various instructional methods being used. However, when meeting with nurse educators to identify those instructional strategies that enhanced a millennial student’s learning, instructors were unable to respond with definitive answers. The instructor’s inability to identify those methods validated that nurse educators were unaware of the instructional methods that benefit a millennial students’ learning. The literature offered mixed recommendations on teaching this generation, with some researchers encouraging more active learning strategies, while others warned of negative consequences resulting from underutilizing
the traditional lecture format. Therefore, the researcher wanted to hear directly from millennial nursing students which instructional methods they believed either helped or hindered their learning.

In preparation for the qualitative study, the researcher reviewed various research articles using the basic qualitative methodologies. The review of these documents provided a clear understanding of the components required for a basic qualitative design. The basic qualitative design was found to align with the research questions of this study. In the qualitative study course, a review of various qualitative studies was completed. The basic qualitative doctoral course aided in the researcher’s understanding of data collection and data analysis procedures. The professor of the course provided recommendations and oversight when conducting the mini study, helping to strengthen the processes required for the final research study.

The researcher’s experience as a nurse educator for 14 years provided extensive personal experiences teaching millennial students in the ADN classroom, which not only provided greater insight but also led to some internal bias. The researcher’s teaching experience showed that students learn best through varying educational methods based on their generational characteristics but did not provide a clear answer regarding which teaching methods may be most effective.

**Description of the Sample**

All the participants in this research study were millennial generation nursing students attending a Midwestern community college ADN program. The participants were born between the years of 1982 and 1998, which fall within the years of (1980–2000) designated as the millennial generation (Delahoyde, 2009). Twelve nursing students \( n=12 \) were interviewed for the study. Nine of the nursing participants interviewed were female, and three were male. All
12 participants were Licensed Practical Nurses who were scheduled to graduate with their associate degree in nursing the next semester. Because some of the students had completed their practical nursing courses the year before, some participants compared the instructional methods used in both nursing classrooms. Participants were redirected to answer questions focused on the ADN program; however, discussing methods used in past educational programs may have influenced the participants’ responses. The planned sample size of 12 student participants was reached through data saturation within the 12 interviews. Two different rooms were used for participant interviews. Both places provided a private setting in a convenient location for the participants. No interviews suffered interruption. Each participant was provided an informed consent that identified the purpose of the research study and described the opportunity each participant had to remove themselves from the study at any time. No participants withdrew before or during the study. All participants signed the consent to participate in the study. Nursing students born to the millennial generation do not meet the criteria of a vulnerable population. The informed consent also highlighted the procedures used to protect the confidentiality of the participants. The confidentiality of the 12 participants was upheld using alphanumeric coding. The coding was identified as Participant 1 (P1) through Participant 12 (P12).

**Research Methodology Applied to the Data Analysis**

A basic qualitative research design was used to answer the research questions: What instructional methods do millennial students identify aided in their learning within an associate degree nursing program? And what instructional methods do millennial nursing students describe as possible barriers to their education? Basic qualitative research enabled the study to focus on the participants’ experiences to help answer the study questions. The primary data
collection methods within this qualitative study were participant interviews; however, to validate the reliability of the findings, additional documents were used to enable triangulation. Data analysis procedures began with a review of the three sources of triangulation: the pre-interview questions, the interviews, and member checks, and the course syllabi.

**Pre-Interview Questions**

The pre-interview document (Appendix) was emailed to participants at least 24 hours before the scheduled interview. Participants were asked to complete the document before their scheduled interview time. The document began by describing the millennial characteristics identified found in the research. After participants reviewed the definition, they were asked to identify the millennial characteristics they possessed.

The additional pre-interview questions focused on identifying the instructional methods that helped or created a barrier to the millennial nursing students’ learning. One question that participants were asked was: What learning activity, in which course, did you learn from the most? Another question asked, What learning activity, in which course, did you learn from the least? Each participant’s pre-interview question document were reviewed after the consent form was signed, and before each interview began. The participants’ answers on this document drove the information asked about on the first interview question. Following the interviews, the pre-interview documents were reviewed to analyze and validate the data collected.

**Interviews and Member Checks**

The semi-structured interview protocol used in this study enabled the researcher to ask each participant about the answers provided in the pre-interview document throughout the interview process. For example, a student who identified the use of clickers in the Nursing of Adults course as the instructional method they learned from the most was asked on the first
interview question to identify the instructional approach used in the Nursing of Adults course that enhanced their learning. The researcher reviewed the pre-interview question and the transcribed interview documents utilizing a constant comparison analysis to determine the validity and reliability of the participants’ responses. Member checking was completed after each interview was transcribed. All twelve participants were provided a copy of the completed transcript to review for accuracy to aid data analysis processes.

**Course Syllabi**

The course syllabi served as the final step in the triangulation analysis process. When participants identified the courses from which they learned the most, the syllabi for those courses were reviewed. The syllabi were analyzed to determine the instructional methods used in the courses and to compare them to methods participants identified as most beneficial; they were also analyzed to assist in the development of themes. The course syllabi were found to be congruent with the participants’ answers on the pre-interview question document and their responses in the interview.

**Coding and Data Analysis**

After completing the data collection, the data were coded and then analyzed. Keywords and terms relevant to answering the research questions were identified in each transcript to open code the data as a first step. After all the transcripts were highlighted with keywords, the axial coding process was completed by categorizing the highlighted terms and noting categories in the margin of each transcript. NVivo12 software for Windows was used to validate and organize the keywords and categories found. The categories focused on those technology-based instructional methods, traditional instructional methods, mixed instructional methods, and group work that participants identified benefited their learning and those that created barriers. Various
subcategories outlined specific instructional practices. Once categories were identified, each transcript was reviewed for participant statements that resulted in common themes.

**Presentation of Data and Results of the Analysis**

The study was conducted to identify the instructional methods that helped or created barriers in millennial students’ learning process in an ADN program. The NVivo 12 software helped to organize the codes and participant quotes that resulted in the development of the categories and themes of the research. Themes emerged from categories that were found to be repetitive in the data. The creation of four major categories and numerous subcategories resulted in the development of three themes: lectures benefit learning, interactive questions help, and group work creates a barrier to learning. Table 1 represents the interview questions, categories, and the subcategories of the study.

Table 1

**Interview Questions, Categories, Subcategories**

<table>
<thead>
<tr>
<th>Interview Questions</th>
<th>Categories</th>
<th>Subcategories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. In reviewing the pre-interview question document, you identified (...) as the</td>
<td>Mixed instructional</td>
<td>Traditional lecture, technology-driven pre-recorded lectures, questions (NCLEX, clickers, ATI),</td>
</tr>
<tr>
<td>course you learned the most from. Can you tell me what instructional methods your</td>
<td>methods</td>
<td>case studies with questions</td>
</tr>
<tr>
<td>teacher used in that course to enhance your learning?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2. As a student born to the millennial generation, what teaching strategies in the</td>
<td>Technology-driven</td>
<td>Pre-recorded lectures, interactive questions (ATI, clickers, Nearpod), simulation, computer use,</td>
</tr>
<tr>
<td>associate degree nursing program did you like the best? Provide some examples.</td>
<td>methods</td>
<td>technology driven methods.</td>
</tr>
<tr>
<td>Q3. What instructional strategies enhanced your learning process? Provide some</td>
<td>Mixed instructional</td>
<td>Benefited learning- Traditional lecture, technology driven pre-recorded lectures, questions (</td>
</tr>
<tr>
<td>examples and tell why each instructional strategy enhanced your learning process.</td>
<td>methods</td>
<td>clickers, ATI), case studies with questions</td>
</tr>
<tr>
<td>Interview Questions</td>
<td>Categories</td>
<td>Subcategories</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Q4. What instructional strategies were least effective in your learning process? Provide some examples and tell why each instructional strategy did not enhance your learning process.</td>
<td>Group work</td>
<td>Group work, case studies, traditional lecture without activities, long PowerPoints</td>
</tr>
<tr>
<td>Q5. Tell me about a time when your instructor used a team or group project in the associate degree nursing program.</td>
<td>Group work</td>
<td>Hindered learning, depends on the group, takes too much time, like collaboration</td>
</tr>
<tr>
<td>Q6. Tell me about a time your instructor used technology as a teaching method in the associate degree nursing program.</td>
<td>Technology-driven methods</td>
<td>Simulation, clickers, ATI Real Life, lecture capture, PowerPoints</td>
</tr>
<tr>
<td>Q7. Tell me about a time your instructor used lecture as a teaching method in the associate degree nursing program.</td>
<td>Mixed instructional methods</td>
<td>They are used during each class. Likes pre-recorded lectures to listen to on own time; traditional lecture is boring the need to have more activities with the lecture. The traditional lecture is beneficial because you get to ask questions to the instructor. Wants to know specific information for the test from the teacher.</td>
</tr>
<tr>
<td>Q8. In what ways do you think millennial generation characteristics relate to how you learn? Provide some examples</td>
<td>Technology-driven methods</td>
<td>Working together- they do it well but don’t enhance learning, uses computers, like technology, does not feel relatable to characteristics.</td>
</tr>
</tbody>
</table>

While a large amount of data were collected pertinent to the research questions, additional questions related to the millennial generation’s traits were also asked in the interview. Millennial nursing students shared their learning experiences and described how they related to their generational characteristics. In response to the question, As a student born to the millennial generation, what teaching strategies in the associate degree nursing program did you like the
best? Ten of the 12 participants identified technology-driven methods such as student response systems (clickers) or computer-based lectures as the teaching strategies they liked the best.

Table 2 provides a list of the individual participants’ responses related to the question.

Table 2

Millennial ADN Students’ Preferred Teaching Strategies

<table>
<thead>
<tr>
<th>Participant</th>
<th>Preferred teaching strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Computer use-Nearpod questions recorded lectures</td>
</tr>
<tr>
<td>P2</td>
<td>Technology and review questions and lecture</td>
</tr>
<tr>
<td>P3</td>
<td>Technology review questions and lecture</td>
</tr>
<tr>
<td>P4</td>
<td>Lecture and handouts</td>
</tr>
<tr>
<td>P5</td>
<td>Group work and lecture</td>
</tr>
<tr>
<td>P6</td>
<td>Online questions and lecture</td>
</tr>
<tr>
<td>P7</td>
<td>Review questions and recorded lectures</td>
</tr>
<tr>
<td>P8</td>
<td>Technology use and recorded lectures and review questions</td>
</tr>
<tr>
<td>P9</td>
<td>NCLEX questions using technology and lecture</td>
</tr>
<tr>
<td>P10</td>
<td>Technology recorded lectures and simulation and review questions</td>
</tr>
<tr>
<td>P11</td>
<td>Technology and recorded lectures</td>
</tr>
<tr>
<td>P12</td>
<td>Clicker questions and lectures</td>
</tr>
</tbody>
</table>

The participants explained the reasoning for their choices, primarily addressing their comfort levels with technology. For example, participant P2 explained,

Some of the strategies, um, a lot of our learning resources and tools are on our laptops, like through the computer, has to do a lot with technology. And I feel like as a millennial, I’m very familiar with that, and it’s more comfortable for me to learn with.

Expanding on technology’s advantages beyond familiarity, participant P11 stated,
I would say the use of technology because that is kind of where I grew up [laughing]. Everything was new, and I feel like with technology, you have a lot more resources than just standing and lecturing in front of the classroom. I’d sleep, I can’t pay attention to it. And so I can always record lectures and go back and listen to bits and pieces or I can, you know, use ATI or whatever I need to use for those other resources.

Addressing further benefits of technology, participant P12 described the dual advantages of immediate feedback and anonymity:

Um, one thing I would say that I like as far as the classroom goes is uh, clicker questions. Where it is somewhat anonymous. I mean, I am sure the instructor can see whose clickers are what numbers. But it gives you that instant feedback where you know these are test questions or similar to test questions, and you can see if you’re retaining that information, but it also helps the instructors. So if there’s an area where a lot of people are getting questions wrong, because it gives them percentages, um, they’re able to elaborate more and clear things up for us.

These findings align with millennials’ generational traits described in the literature. For example, millennials are noted for being technologically savvy and preferring immediate feedback and responses to questions (Desy et al., 2017; Stephens & Gunther, 2016).

While millennial nursing students primarily identified technology-driven instructional strategies as those they liked the best, the study sought to determine which strategies students believed benefited or created a barrier toward their learning. When further analyzing the codes that aligned with the research questions, three emerging themes were found: lectures benefit learning, interactive questions help learning, and group work creates a barrier to learning. A report of the research findings included participant quotes that supported the themes.

**Theme 1: Lectures Benefit Learning**

Conducting participant interviews revealed different participant experiences related to those instructional methods that benefited or hindered learning. The first theme was lectures benefit learning. Even though students identified a variety of instructional approaches that aided their learning process, the strategy mentioned most by participants was a lecture. Table 3
identifies the participants’ responses to the question, What instructional methods enhanced your learning process?

The participants described the benefits that lectures had on their learning in the ADN program. While some participants disagreed on the preferred delivery method of the lectures, overall, participants noted that without lectures, learning would be stifled. Many of the participants identified the benefits of recorded lectures (lecture captures) incorporated with traditional classroom lectures.

Table 3

*Instructional Strategies That Enhanced Learning*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Instructional strategies that enhanced learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>ATI interactive quizzes and questions; lecture capture</td>
</tr>
<tr>
<td>P2</td>
<td>Lecture capture and taking notes, ATI Real Life</td>
</tr>
<tr>
<td>P3</td>
<td>Lecture and taking notes</td>
</tr>
<tr>
<td>P4</td>
<td>Lecture capture</td>
</tr>
<tr>
<td>P5</td>
<td>Simulation and virtual case studies with questions; traditional</td>
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<td>P6</td>
<td>Lecture and review questions</td>
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<td>P7</td>
<td>ATI and NCLEX style review questions; lecture</td>
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<td>P8</td>
<td>NCLEX style questions and quizzes; recorded lectures</td>
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<tr>
<td>P9</td>
<td>Interactive questions with rationale; traditional lecture</td>
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<tr>
<td>P10</td>
<td>Traditional lecture, interactive questions, and video case studies</td>
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<tr>
<td>P11</td>
<td>Lecture capture and PowerPoints with clicker questions</td>
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<tr>
<td>P12</td>
<td>Traditional lecture with activities</td>
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Participant P1 noted, “Listening to the lecture capture the day before and then once she goes over it after I made notes, then I have listened to it once, and now she’s explaining it, and
it’s better to grasp the information.” P4 added, “Lecture capture gives me a time to sit at home and listen on my own and take notes.” However, P4 further explained that while recorded lectures did provide an advantage for learning, traditional lectures allowed the student to ask questions of the teacher:

And then, when we come to class, she lectures over the lecture capture, it’s more detailed. It already gives you more time to come up with questions and her time to answer the questions to where you better understand them. I am a very auditory person. So lecture is my bread and butter.

P12 added,

Um, teaching strategies I’ve learned from, so the course does a flipped classroom. Um, so a lot of the times we do our lecture captures at home, and then we come to class, and they do an abbreviated version of that in class. And I think that’s fair because that’s how I think most people learned their entire lives. And hearing it twice is really good too. They can really hit what they think is important for NCLEX for tests.

The repetition of hearing the lecture using a recorded lecture method was also noted in other participant interviews. P10 described,

So, it’s kind of that repetition that really sticks it where it needs to be and um, she also offers the um, the lecture captures. So she puts the PowerPoints online, and she will voiceover with the PowerPoints.

Although P2 had indicated that lecture was not a favored strategy, the participant acknowledged that it did enhance overall learning:

My least favorite part about prepping for class is lecture captures, but I do get a lot of information out of that and it makes it easier to follow along in class. That way, when I go to class and listen to lecture, I will be prepared and can add to those notes with whatever my instructor said in class. And then, I can refer back to that if I need help with the case studies or any of the Nearpod activities in class.

Participant P5 emphasized the learning benefit from recorded lectures:

They lecture just about every day. They have pre-recorded lectures that we are supposed to listen to before class, and then they kind of go over that a bit deeper in class. And I actually feel like I’ve learned a lot from that.

Participant P8 agreed:
Um, we get lecture about every class period. Um, they’ve kind of steered away from the typical lecture of kind of going through the information point by point. They just kind of review what you should have already reviewed before class. Which is good for me because that’s what I prefer to do. That way, I can re-evaluate and make sure I did retain that information from the night before.

Some participants shared that the traditional classroom lecture was the lecture strategy that most enhanced their learning. Participant P4 offered some explanation as to why a millennial student may prefer a traditional lecture format:

Back in the days when I was in school, we didn’t have a lot of the computer tech. We had lecture only and books. Most of the time, teachers lectured over stuff versus sitting down and reading a book and doing it on your own.

Participant P5 agreed,

I learn best when I am sitting there listening to it the first time. It’s probably the most important thing to me because when they just lay it all out there and show how it all makes sense. Kind of get it all sealed in my mind. I don’t think I could survive without that.

One of the benefits of a traditional in-class lecture was the impact the instructor’s presence had on the students. Participant P9 emphasized the importance of the instructor's presence during a traditional lecture and noted that that the recorded lectures can lead to a lack of attention:

I like being in class better. Just because with that [lecture capture], they are not there, so they can’t see what you’re doing, so sometimes I doze off; they just get very monotone. I, I really like when they do lecture.

P10 also addressed the importance of the educator’s presence as a benefit of the traditional lecture environment: “I like to be in class. I like to be with the teacher. And that way if I have any questions she’s right there. They’re right there.” When asked what instructional method enhanced learning, participant P10 said,

I would say the lecture. Just because I can take my own notes and it’s coming directly from the teacher who makes the test, so. It’s not information on-screen or online and you have to be like what it is that they are going to want.
Clarifying what aspect of the traditional classroom lecture enhanced learning, P5 added,

Telling us this is what you should remember about this. One of the instructors would be really good about saying, this is nice to know, and one day I would like you to know all this, but this is what you need to know.”

Like P5, participant P6 also described the importance of having the instructor prioritize those areas they need to know during a traditional lecture format:

So in Nursing of Adults, I like it because our teacher tells us, she really, I don’t know if it’s, that I’m able to pick up on it now but she hints on the things we need to know for sure. Like, the big things, what is going to kill your patient the fastest? The really hot topics, she stresses it enough that it really sticks with you.

Lecture was the instructional method deemed most beneficial to student learning; however, participants did identify the need to incorporate additional activities with the traditional lecture method to help the learning process. P2 described,

We use lecture about every day but, they also tie in the activities that go with the lecture, and I think that helps more than just sitting through a straight lecture because you are able to engage and use those critical thinking skills, which is a big part of the LPN to RN transition.

Even though students claimed to like technology, they actually found lectures—and in particular, traditional in-class, in-person lectures—the most beneficial to learning. The lectures, however, were most effective for some students when supplemented by another technique, whether lecture capture or related activities. Identification of the benefits of the interactive aspects of lectures led to the second theme.

**Theme 2: Interactive Questions Help Learning**

*Interactive questions help learning* was the second theme that emerged from the interviews. While participants noted the learning benefits of lectures, they also commonly described the incorporation of interactive questions as a way to improve learning. Interactive questioning was found to be beneficial both during lecture classes and in other settings.
Participants identified the use of interactive questions either online or with student response systems such as Nearpod and clickers as a tool that enhanced their learning in the ADN program. The participants described how interactive questioning helped their learning. Participant P1 stated,

We did Nearpod questions where we would get in groups and discuss the questions and then go over them in class. Then we would do clicker questions, and that really made us think and talk in a group and then get other people’s opinions and maybe different points of view about what they thought.

Participant P8 added,

Um, we have a lot of clicker questions. So in our PowerPoints, they’ll ask us questions, and they say to get out your clickers, and then we can select the answer with our remotes. Um, it kind of helps me see where I’m at, if I am the 4% that answered the wrong question, I can see wow I need to study that and then 85% is you know the other answer so. I like those a lot.

Participant P9 described the benefit of using the ATI resource questions: “All three of the classes they do ATI, which is testing. And then there are video case studies, things like that. And those help me.”

When asked what made the interactive question instructional method beneficial toward learning concepts, P9 stated, “Just helps me retain the information better. Like the testing, because that helps us prepare for the NCLEX at the end as well. Just knowing those test-taking strategies.” Participant P4 agreed that interactive questions enhanced learning: “It makes you think. And then you get a lecture after that. You are able to answer why this is wrong or why this is right. So it’s more details on the specific question or condition.” Participant P6 responded, “So it’s NCLEX style questions that are very similar to NCLEX. I just use more of the online resources and NCLEX questions.” When asked about the method that enhances learning, P6 identified, “Um, sample questions. Um, questions that are like what is going to be on the test. Not exactly but ones like that.”
Other participants stated that the use of interactive questioning provided less stress and anonymity, which helped learning. Participant P2 explained,

We do a lot of clicker questions, and it’s anonymous, so you don’t feel the pressure of people knowing whether you got a question right or wrong. And we’ve done Nearpod activities, she lets us get in groups and we answer the questions and they come up on the screen and I think those are very beneficial. Participant P12 agreed that the anonymity of the interactive questions was essential and helped the learning process.

Um, one thing I would say that I like as far as classroom goes is uh clicker questions. Where it is somewhat anonymous, I mean, I am sure the instructor can see whose clickers are what numbers. But it gives you that instant feedback where you know these are test questions or similar to test questions, and you can see if you’re retaining that information, but it also helps the instructors. So if there’s an area where a lot of people are getting questions wrong, because it gives them percentages, um, they’re able to elaborate more and clear things up for us.

In response to a question about technology use in the classroom, P11 described how clickers help the learning process not by letting students see the items they got right or wrong, but also by allowing both instructor and students know where the whole class is struggling with a concept:

We use the Turning Point clickers for NCLEX questions. And it shows how much of the class answered for A, answered for B answered for C and it shows a percentage and shows oh, 25% answered A, but 75% answered C. And so we could really kind of see where the whole class struggled on something, rather than just one person on a test or something. I think that kind of helps the people who are struggling say, hey, I need help. Because it’s more than just one person.

When reviewing additional strategies that participants noted as beneficial, the use of interactive questioning continued to be a theme. While different resources were utilized, the method was commonly pointed out as a way of enhancing learning. Participant P1 described ATI as an additional interactive question resource that aided learning: “The ATI, like we do ATI quizzes, ATI Real Life, and if you don’t do well on that, then you can re-do it and see what you missed. It gives you the rationale.” Participant P2 agreed that ATI resources were beneficial:
Um, our instructors also use ATI Real Life a lot, and I think those are very beneficial. And if you get a question wrong, it could be detrimental to your patient if you choose the wrong answer. And if you choose the right answer, you use a lot of clinical judgment and critical thinking. And I find those very helpful. Participant P5 explained why ATI Real Life was helpful in learning:

It would give you a video of the scenario and then give the options you can pick. And depending on what option you picked, it takes it down a different route. That was helpful. I guess just the things that bring real life into it more than just reading from the textbook.

Participant P2 described the use of interactive questioning using technology-driven resources as more beneficial than written review questions for learning the information:

In one of our classes, the instructor had printed off paper questions and taped them up around the room. And we had to walk around the room and answer the questions. I don’t know why, but I did not feel like that was beneficial for me. I think it was because I did not have the questions right there in front of me to refer back to if I needed to…um if I needed to tweak my answer or anything.

Overall, participants identified that the use of interactive questioning enhanced their learning because it enriched lectures and other methods of learning; the participants felt they were able to apply what they had learned to a patient scenario, get prompt feedback to their anonymous responses, and be provided the rationale behind the correct answer to aid further learning about a concept. Based on the participant’s experiences with instructional methods in an ADN course, one of the most helpful strategies that enhanced their learning was the use of interactive questioning resources.

**Theme 3: Group Work Creates a Barrier toward Learning**

The final theme, *group work creates a barrier toward learning*, evolved from participant responses to questions that addressed their group work experiences and teaching methods that hindered their overall learning. While all of the participants mentioned utilizing group projects in the ADN program, this method was not identified as a strategy that necessarily enhanced learning.
When asked to describe a time the instructor used a group project, P12 asked, “Hmmm… a good group project?” The researcher specified, “The group project does not have to be good, just describe it.” P12 responded, “I think I work alright by myself.” Participant P12’s response indicated a negative view of group work.

When participants were asked about the instructional methods that were least effective in their learning process, the following responses related directly to group work: P6 said, “I really don’t like group work. I feel like that’s a waste of my time, so.” P9 agreed, “Um, a lot of times, the group assignments.” Participant P7 also expressed distaste for group work: “No, I do not like group projects. That’s another thing for me; I just feel like it’s a task, and I just get it done.”

Participant P10 described the reason for preferring to work alone instead of in groups: “I feel like I can concentrate more that my thought flow can kind of go wherever it needs to. But when you are in a group setting, it’s more, ok, well, is this what they think?” Participant P10 added that stressors that occur when working on a group project:

And how can we all weave it together to make it something that we all agree on? And it’s not that I’m a like I’m right, I’m right. I don’t consider myself a self-centered person like in the millennial generation. But I do, I like to have my ideas and this is how it is. Echoing P7’s thoughts, P10 further identified that group work did not enhance learning because it was just the group “going through the motions” to get a task completed.

Other participants reported that much of the learning was stifled because of the time it took to complete the group projects. When asked to provide an example of a group project, P9 described:

The one I liked the least, I think we have had to do this in all of our courses. We had to create a PowerPoint over a certain topic, and we just kind of reiterated everything just word for word right out of the book and didn’t even pay attention to what we were doing. We just wrote everything from the book. And you could see too, everyone in class, nobody paid attention. So it just made it, it was kind of a waste of time.

Participant P6 provided another example:
Um, we had to get in groups and make like a game to play using the information that we had. I mean, which is fine, and probably helped me learn some things a little bit but, I probably could have done it a lot faster on my own. Just reviewing the material and taking notes.

Participant P7 responded:

Um, we’ve had a couple teachers ask us to make a game or quickly write a paper about the material without discussing the material. And I don’t retain the information from that. I follow the directions and get it complete.

Participant P9 described concerns with equal participation related to a group project:

Because sometimes, there will be one person who just wants to do it all themselves, so it’s not really a group, or if you have an idea, it gets kind of brushed to the side. I feel like we don’t take the group activities as seriously. Because sometimes they’re just participation, and we try to get it done as fast as we can and not even.

Most of the participants indicated that while group work may not always enhance learning, it could lead to collaboration. Nevertheless, successful collaboration is often dependent on having the right group members. Participant P5 explained that learning through group work is dependent on the participants in the group:

Um, it depends on the group. Some groups are much more oriented to actually learning where other groups just goof off. So it depends on the individuals. I am not a very social or outgoing person, so probably if I had my choice, I would probably do it on my own. But it’s good to have input from other people too.

Participant P12 described how working with a cohesive group can be useful:

So, I think it [group work] can be very helpful. Um, I’m very close with like the people that sit at my table because we do a lot of our work together in class. With that reverse classroom model, a lot of our assignments and discussions, and that sort of thing are us working together. But I don’t have to be in a group.

Participant P2 added that group work could enhance collaboration when “some people may know more things than you do, and it’s nice to have those other people help you out, I think.”

While some of the participants identified that working in a group could benefit collaboration, the majority of those interviewed identified learning barriers created from group work assignments.
Summary

Chapter 4 presented the data analysis processes, themes, and the participant’s responses to the research questions. Chapter 4 began by describing the data analysis procedures as they aligned with the research methodology. Through this qualitative study, the researcher was able to identify emerging themes that helped determine answers to the research questions. The instructional methods of lectures and interactive questions were found to enhance the millennial students’ learning in an associate degree nursing program, while the use of group work as an instructional method promoted barriers to the learning process.

Chapter 5 will provide an in-depth discussion about the results. Additionally, the limitations and implications of the study will be identified. The recommendations for further studies will conclude the chapter.
CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

With millennial student enrollment increasing in associate degree nursing programs, there is a need for more research investigating the instructional methods that help or create barriers to learning for these students. With an ongoing need for more nurses in the workforce, it becomes vital for nurse educators to understand how this generation best learns to ensure student retention and success. The purpose of this basic qualitative research study was to determine the instructional methods that millennial students in an ADN program identified as aiding in their learning and those that caused learning barriers. Chapter 5 presents a summary of the study findings and an interpretation of the results. The study’s themes were analyzed based on the elements of Knowles’s theory of andragogy and Kolb’s experiential learning theory and findings in previous and current literature. The chapter further examines the study’s limitations and implications and provides recommendations for future research.

Summary of the Results

The study was conducted to address a gap in the literature that exists regarding the instructional methods that either help or create barriers to millennial nursing students’ learning in ADN programs. Previous research (Erlam et al., 2018; Ferszt et al., 2017; Johanson, 2012; Montenary et al., 2013) primarily focused on BSN students’ preferred instructional methods; however, nursing education continues to experience the increasing enrollment of millennial learners in ADN programs (Battle & Tyson, 2018; Cantrell & Farer, 2019; Peck, 2013). It is crucial for instructors to know which of the various instructional strategies available best lead to millennial nursing student success. There is, therefore, value in understanding which instructional methods either help or hinder this student population. Due to the ongoing nursing shortage, there is a
need to ensure that nursing students succeed in the classroom with a goal of entering the workforce.

This study sought to answer the central research question regarding which instructional methods were identified by millennial ADN students as helpful to learning. In addition to being aware of the instructional methods that aid learning, nurse educators also need to recognize the strategies that created barriers to student learning. The research subquestion, which examined the instructional methods that millennial nursing students described as possible barriers to their education, was used to add to the value of the study. The study utilized the theoretical frameworks of andragogy and experiential learning to guide the focus of the research.

Research has addressed the need for a mixed instructional method strategy that uses both lecture and active learning strategies together to enhance students’ learning (Aliyari, Pishgoorie, Abdi, Mazhari, & Nazari, 2019; Blissitt, 2016; Toothaker & Taliaferro, 2017). Additional literature highlighted that, while group work is essential, some students experience a lack of learning when using this method (Barnes & Jacobsen, 2015; Hampton et al., 2017; Wong, 2018). The literature reviewed also emphasized the importance of educators understanding variables that can influence students’ learning during group work. (Barnes & Jacobsen, 2015; Hampton et al., 2017; Wong, 2018). Wong (2018) discussed that group work might present teamwork barriers that impede student learning as well as how group work could assist student learning if educators are willing to review the variables within group work projects that can negatively influence learning.

Additional literature reviewed after the interviews were completed agreed with the study’s findings. Tornwall, Lu, and Xie (2020) determined that the use of interactive questions using Nearpod, a technology-driven student response software, increased student grades.
Another study by George, Murphy, DeCristofaro, and Hucks (2019) found that while students understand the benefit of a collaborative group project, students did not find that group projects increased their overall knowledge when using the method. Participants in the study described that the lack of collaboration between group members and the lack of clear instruction contributed to their negative views when completing group work activities (George et al., 2019).

Knowles’s theory of andragogy and Kolb’s ELT provided the framework for the study. The theory of andragogy offers an understanding of the educational needs of the adult learner (Knowles et al., 2015). Kolb’s ELT describes the ways students’ backgrounds and experiences can impact their learning process (McCarthy, 2016). Participants in this study were millennial-born students and met the age requirements to be designated as adult learners. In addition to their adult learner perspective, the millennial generation has specific characteristics that may influence their way of learning.

Twelve millennial ADN students from a Midwestern community college shared their experiences with various instructional methods utilized in the first semester of their ADN program by answering a pre-interview question document and eight guiding interview questions. The data collected revealed three themes: lectures benefit learning, interactive questions help, and group work creates a barrier to learning.

Ultimately, the study found that millennial ADN students learned best from a lecture; however, the integration of active learning strategies such as interactive questions helped students gain a better understanding and application of the concepts. This study also found that group work was the least beneficial method for millennial ADN students’ learning.
**Discussion of the Results**

The data from the study generated answers to the research questions. Findings from the study determined that millennial ADN students learn best from lectures that incorporate the use of interactive questions. The study results also revealed that group work was not a beneficial instructional method in the participants’ learning process.

The first research question focused on the instructional methods that enhanced ADN millennial students’ learning. All participants in the study identified lectures as a vital instructional element that enhanced their knowledge. The study determined that students were provided some form of lecture (classroom or recorded) frequently. Therefore, it is difficult to determine if students found lectures helpful toward their overall learning because of the nature of the instructional method or merely because of its familiarity.

While all 12 participants in this study identified lecture as a beneficial instructional method in the ADN program, a majority of participants also reported a need to integrate interactive questions to aid with their learning. When asked which instructional methods using technology enhanced their learning, students commonly responded with the use of interactive questions. Nine of the participants noted that integrating interactive questions with lectures enhanced their understanding and application of concepts learned. Participants explained that the use of technology-driven student response systems benefited their learning because of its anonymity and immediate feedback. Students were able to assess their knowledge on a subject in real-time without fear of peer judgment.

The second research question shifted the focus to the students’ experiences with instructional methods that were potential barriers to their learning process, and group work emerged as a common theme. While some participants reported that group work could benefit
learning, their responses also noted variables such as; too much time spent on group work or passive members within a group that negatively influenced the student learning process. Overall, the respondents indicated that because of the associated variables that affect group work learning, the use of this instructional method created more barriers to their learning process than other instructional methods. This study’s findings, however, may be based on the instructors’ lack of understanding of the group project variables that can negatively impact a student’s learning, as Wong (2018) explained. Future studies may refine this finding by exploring the impact of those variables on the students’ learning through group work.

The study results fully answered the research questions to the extent that they addressed student perceptions of instructional methods that were most or least helpful to learning. The millennial generation has utilized both active and passive instructional methods throughout their education. Therefore, it is plausible that millennial nursing students would enjoy the use of a mixture of methods to enhance their learning. This study provides a more precise answer regarding the accurate mixture of strategies that can strengthen a students’ learning within an ADN program. The use of lectures with the integration of interactive questions is the best method to encourage student learning. Consistent with what is known about the millennial generation, the study found that technology plays a significant role in aiding learning; therefore, nurse educators must utilize student response systems that promote the use of technology to answer interactive questions. Students identified group work as a strategy that did not benefit their overall learning. As millennials have often been referred to as a generation that enjoys teamwork, this finding was surprising. While participants recognized the importance of group work and collaboration, perhaps the reasons that group work was identified as a barrier was
based solely on the nurse educators’ lack of understanding regarding the variables that can negatively influence student learning when using this method.

**Conclusions Based on the Results**

The data analysis determined three themes within the study that identified the instructional methods that enhanced or created barriers to millennial ADN students’ learning. The themes provided insight into why millennial ADN students may learn more from particular instructional methods. The study’s conclusions emphasize the importance for nurse educators to understand the instructional practices that best meet millennial students’ needs and to implement those strategies into the ADN classroom. Utilizing the instructional methods that enhance student learning can help retain those students, ultimately aiding in the current nursing shortage concern (Smith-Wacholz et al., 2019). On the other hand, to aid student success in an ADN program, nurse educators must also be mindful of the variables that can impede this generation’s learning. The data discovered in the study may be used in the future to determine the instructional methods best used to enhance student learning and apply those methods in the ADN classroom. The findings assisted in answering the research questions and aided in the development of themes.

**Comparison of Findings with Theoretical Framework and Previous Literature**

The themes of the study aligned with the theoretical underpinning and qualitative methodology used for the research study. Findings in this study indicated that millennial ADN students learn from lectures regardless of their delivery method (i.e., recorded or live). While students disagreed on the preferred delivery method of the lecture, access to this instructional method was described as vital to participant’s overall success. The findings are consistent with previous research (Barnes & Jacobsen, 2015; Pettit et al., 2017; Young & Seibenhener, 2018)
that showed that millennial students learn best with lecture as the instructional method. One potential reason for millennials’ preference for lecture may be due to their experience with lecture methods. ELT identifies the influence that students’ backgrounds and experiences can have on their learning and success (McCarthy, 2016). Participants noted that the lecture-driven instructional method was a strategy they were familiar with before they entered the ADN program. As Participant P4 said,

> Back in the days when I was in school, we didn’t have a lot of the computer tech. We had lecture only and books. Most of the time, teachers lectured over stuff versus sitting down and reading a book and doing it on your own.

The literature also described that both traditional live classroom lectures and recorded lectures are beneficial to student learning (Patel, Yook, Mislın, & Persky, 2019). While the integration of recorded lectures is a newer approach to instruction, it continues to incorporate an instructor-led method. Knowles’s theory of andragogy identifies the instructor-led lecture as a form of pedagogy beneficial to children’s learning but not advantageous to the adult learner (Knowles et al., 2015). However, study participants said that lectures provided them with what they needed to know in the course, which is consistent with the theory of andragogy’s assumption that adult learners need to know both the concept and why the information they are learning is necessary. Participant P6’s comments revealed the alignment of the need-to-know assumption with lecture methodology:

> Also, I like PowerPoints and lectures that give us the exact information we need to know. Not ones where it, you know, kind of hints at what you need to know, and you are supposed to find it on your own. I like to know the information exactly as it will be presented.

The adult learning theory also emphasizes that adults need more self-directed student-led instructional methods. While instructor-led lectures may be viewed as contrary to the andragogy framework, the recorded lecture method does enable the
student to have control over their learning. Participant P3 noted the importance of having control
over the lecture,

We get our lecture captures; we get recorded lecture captures, which is nice because then
we can watch it or listen to it on our phones. Like I can listen to it on my way here even
though sometimes, it puts me to sleep. It’s nice because it’s available. I can put in my
earbuds while I am doing something else and listen to lecture capture.
Students can decide when or how often to listen to recorded lectures, making the strategy
more student-driven. Recorded lectures enable instructors to utilize the familiar lecture format in
a way that also allows more self-directed learning (Levey, 2016).

The andragogy theory emphasizes the need for instructors to utilize active learning
methods to enhance adult student learning. Levey (2016) added that most educators utilize and
enjoy the instructional techniques that were used in their educational pursuits, which raises the
question of whether students learn more from a lecture than another technique or if it provides a
sense of comfort because both students and instructors are used to that methodology.

This study also found that an active instructional method using interactive questions
helped students learn. Some of the literature (Blissitt, 2016; Toothaker & Taliaferro, 2017)
recognized millennial students’ need for lectures to aid learning but also identified the need to
blend both passive and active learning strategies. When asked about which instructional method
enhanced learning, Participant P7 responded that “NCLEX-style questioning and then interactive
conversations about the material” were most helpful.

Toothaker (2018) supported this finding, stating that the integration of student response
system clickers enhanced student engagement and encouraged critical thinking skills. Tornwall
et al. (2020) described a positive association with student learning reflected in higher final grades
when students used the Nearpod student response system. The use of interactive questions to
enhance learning also aligns with Kolb’s ELT framework. The reflective observation stage of
ELT highlights the importance of student reflection on what they have learned and how to improve their understanding of the concept (McCarthy, 2016). Participant P11 highlighted the significance of reflective observation when using interactive questioning methods:

We use the Turning Point clickers for NCLEX questions. And it shows how much of the class answered for A, answered for B, answered for C, and it shows a percentage and shows oh, 25% answered A, but 75% answered C. And so we could really kind of see where the whole class struggled on something, rather than just one person on a test or something. I think that kind of helps the people who are struggling say, hey I need help because it’s more than just one person. Similarly, Participant P8’s response regarding interactive questioning showed the importance of reflection, “It kind of helps me see where I’m at, if I am the 4% that answered the wrong question, I can see wow I need to study that.” As the literature indicated, students found lectures combined with active learning strategies, such as interactive questioning using student response system clickers, to help their learning.

After identifying the methods that aided the student learning process, the study reviewed instructional strategies that hindered learning. The research findings disclosed that group work was an instructional method that created a barrier to student learning. Participants interviewed described that while group work may prove beneficial in practicing collaboration, it is not always conducive to learning. Some of the reasons participants gave for identifying group work as a hindrance aligned with the theoretical assumptions outlined in the theory of andragogy. Participant P6’s explanation of why group work was the least effective instructional method used supported Knowles et al. (2015) assumption that need-to-know is essential to adult students’ learning process. Participant P6 stated, “So its NCLEX style questions that are very similar to NCLEX. And then very similar to our exams that are made by a company that we purchase.”

The participants’ discussion of the problems they had with group work also corresponded to the self-concept assumption, which states that adult students need to be more self-directed and
responsible for their learning (Knowles et al., 2015). Group work, however, depends on a team working together to learn and apply a concept. The study indicated that this might interfere with students’ self-direction and taking responsibility for their own learning. For example, Participant P9 explained, “Because sometimes there will be one person who just wants to do it all themselves, so it’s not really a group, or if you have an idea, it gets kind of brushed to the side.” P10 similarly noted the lack of self-direction: “When you are in a group setting, it’s more, ok, well, is this what they think?” The participants’ responses suggest that group work, rather than being an active learning strategy, may instead involve students abdicating personal responsibility for learning in response to group dynamics. Wong (2018) agreed with these findings that group conflict and passive team members create barriers to student learning. Cantrell and Farer (2019) also supported this finding; their research suggests that millennial students’ dissatisfaction with group work is due to a lack of instructor engagement in the process.

The findings from this qualitative study may be used to aid in the nurse educator’s understanding of millennial students’ preferred learning methods, enabling instructors to allocate more time toward the beneficial instructional strategies. Moreover, using strategies that millennials best learn from can improve student success and retention, greatly benefiting the nursing profession.

**Interpretation of the Findings**

Although both millennial characteristics and the theory of andragogy identify a need for self-directed instructional methods, findings from this study emphasize the importance of not using a one-size-fits-all mentality. This study’s findings noted that participants identified that lectures were integral to their learning process. While this finding was surprising in light of the literature review that emphasized a need for fewer lectures and more active learning strategies to
aid millennial student learning (Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018); additional research supported the need for more mixed instructional methods (Blissitt, 2016; Toothaker & Taliaferro, 2017). The integration of more active learning strategies, however, has caused some abandonment of the instructor-led lecture. With the push for nursing instructors to utilize more active learning strategies when teaching this generational group, educators must be mindful that traditional methods may still be required to enhance student success. Therefore, nurse educators need to incorporate a lecture format covering the concept and then ask students to apply the information learned by answering questions that encourage higher thought processes. This study’s findings identified that the use of interactive questions integrated as a part of the lecture helped student learning. The integration of both passive and active learning strategies can best meet student needs, enhancing the overall learning of the information. Research findings support the inclusion of active instructional methods using student response systems or integrated questions to improve student learning and engagement (Toothaker, 2018; Tornwall et al., 2020). While participants identified a variety of interactive question techniques and tools such as Nearpod, ATI Real Life, and clickers, research revealed that regardless of the format, questions about the content help students learn, apply, and retain information (Toothaker, 2018; Tornwall et al., 2020).

Group work has been identified in past literature reviewed as a preferred learning method of the millennial generation (Desy et al., 2017; Erlam et al., 2016; Montenery et al., 2013; Stephens & Gunther, 2016). And while some participants in the study did identify that group work could aid learning, different variables influenced their decision to define this method as the least effective in their learning process. Wong (2018) acknowledged the need for educators to be aware of the variables that influence the success of group work. One of these variables is
ensuring that students know the goals and objectives of the group project. Therefore, when assigning group projects, instructors must be conscious of the objectives that must be met through the assignment. Next, educators must be methodical in determining when and how often to utilize a group project. Not every assignment fits the criteria for a group project modality. If group work is excessive in a course, student learning can be jeopardized with students rushing to complete a project and move on to the next issue (Wong, 2018).

Additionally, the nurse educator must be transparent about the project’s needs, must be aware of potential conflicts, and outline the responsibilities of group members. Wong (2018) identified the need for instructors to review the objectives of the assignment to determine the adequate group size. Conflict is more apt to occur when the group size is too large (Wong, 2018). If the group size is too large, it may lead to multiple leaders and communication struggles. Participants in the study identified concerns related to passive members’ disregard for completing projects and the lack of details or oversight regarding the project. Educators may want to outline the roles that should be assigned in each group and outline the responsibilities of each to remedy this concern. While working in groups can lead to some conflict, the nursing profession is based on the values of collaboration and cooperation with colleagues. Therefore, group work should be integrated as a learning modality with guidelines to help eradicate concerns and aid student learning.

**Limitations**

This qualitative study was limited by the narrow geographic and demographic characteristics of the population sample. First, the study used a purposeful sampling to obtain data related to the research questions. Twelve participants within a single Midwestern community college were asked to identify the instructional methods that enhanced and created
barriers to their learning process in an ADN program. Because the study was limited to the views of ADN students from one community college nursing program, issues exist with transferability of the findings to a larger population. Future studies are encouraged to utilize more ADN programs in the research to obtain stronger results and gain a broader understanding of millennial ADN students’ beneficial instructional methods. Next, because millennial generation students may not continue to enroll in ADN programs, the information and findings from the study are time-sensitive.

An additional limitation is based on the researcher’s previous experiences as an ADN nurse educator in the nursing program utilized for this study. While the researcher is no longer employed with the institution, there was advance knowledge of the instructional methods used in the program and an awareness of those that appeared beneficial to the millennial learner during the researcher’s instructional period two years prior. Understanding that these elements could present bias resulted in additional processes to ensure the credibility of the study. For example, an expert review of interview questions was conducted to aid with the potential bias concerns. Also, the use of member checks and triangulation was implemented to ensure the credibility of the findings.

Even though the interview questions underwent an expert review, the study was limited by the interview questions. Evidence of redundancy was noted in a few of the interview questions. An analysis of the transcripts found similar answers by participants when answering questions one and two. Additionally, interview questions focused on the participants’ experience with lectures, technology, and teamwork in the ADN classroom. However, this may limit the participants’ discussions regarding additional instructional strategies that benefitted their overall learning.
Finally, the study focused on student perceptions of what worked best for them; future studies could not only expand the geographic and demographic sample but also correlate student perceptions with objective data that include the number of times instructors use different instructional techniques and the students’ grades.

**Implications of the Study**

The study of millennial ADN students’ experiences with instructional methods revealed new findings regarding the strategies that enhanced or created barriers to learning. This study’s results reflect the need for nurse educators to use lectures integrated with active learning strategies to improve learning for the millennial ADN student. While lecture as an instructional method was a pronounced element that enhanced the participants’ learning process, nurse educators have been challenged to implement more active learning strategies to improve student learning. The incorporation of more active learning methods is supported by Knowles et al. (2015) theory of andragogy, which indicates that adults learn best when utilizing self-directed learning. While this study’s results support the integration of an active method using interactive questions, the need for a lecture to enhance the learning of these individuals should not be ignored. Instructors must be prepared to utilize both active and passive instructional methods to improve student learning and success.

Consistent with both theories, the premise of the study is based on the student’s backgrounds and experiences. Millennial students are described as technologically savvy, perpetuating their need for more active instructional integration. However, the millennial generation continues to learn using lecture-based instructional methods. Perhaps the inclusion of lecture-based instruction was used early in their educational pursuits because of their instructors’ familiarity with the lecture method. Delahoyde (2009) addressed the use of lecture-based
education due to the instructors’ familiarity with the delivery process; however, as technology advanced, more active learning strategies were integrated within the millennial students’ classrooms. Therefore, based on this generation’s experience with both passive and active instructional methods, it is not a surprise that the study findings indicated the need for a mixed teaching approach. Another related factor influencing this generation’s learning is their need to know. The theory of andragogy identified the need-to-know assumption, addressing the fact that adult students need to be provided both the content and the reason why they need to know to ensure success (Knowles et al., 2015). Participants in this study noted that a variety of instructional methods (group work, traditional lecture, and recorded lectures) were not beneficial to their learning when they were long (i.e., did not get right to the point) and did not address the reasons for knowing the content.

The participants’ lack of knowing the instructional method’s objectives was a reason that group work was not beneficial to learning. However, some participants did note the benefit of group projects when they understood the goals of the work. Based on these study findings, the implications for practice when instructing millennial students are utilizing a mix of both passive and active strategies and using group work methods that outline specific objectives and responsibilities of the group.

Mixed Instructional Strategies

According to the study findings, lecture was the instructional method that enhanced the participant’s learning the most. The participants had mixed feelings regarding the benefits of traditional lecture versus recorded lectures. Some participants noted that the traditional lecture provided by the instructor in the classroom with a PowerPoint presentation was beneficial because they were able to see the information and hear the instructor deliver the information in
person. Other participants valued the flexibility of hearing recorded lectures and viewing the PowerPoint slides at a time that fit their schedules. Both groups identified the importance of some form of a lecture in their overall understanding of the concepts, regardless of the delivery method. They also noted that long PowerPoints led to inattention. Participants also noted that activities that required them to fill in the blanks on the PowerPoints with the information they looked up before class did not result in learning information but instead were an exercise in going through the motions to complete a task. Therefore, to ensure lectures are useful to student learning, educators must be mindful of ensuring PowerPoints are concise and fit attention spans and integrate strategies to enhance more application and critical thinking.

While all of the participants identified lecture as the primary instructional method that benefited their learning, most also noted the importance of integrating active learning strategies with the lecture to enhance their application and analysis of the content. Participants stated that interactive questions aided their learning process. Lenz, McCallister, Luks, Le, and Fessler (2015) described the importance of educators lecturing and then asking students questions about the information provided to aid in their understanding and application of the concepts. In some cases, interactive questions posed during a lecture mean calling on students to explain issues using a Socratic method. While the integration of this type of interactive questioning can enhance critical thinking, it does not promote the technology provided when using electronic student response systems. Not only does the integration of interactive questions using clickers enhance critical thinking, but it also promotes anonymity and provides an opportunity for instructor clarification (Toothaker, 2018). In some schools, clickers are registered to students so instructors, but not other students, know who is answering. Participants explained that the sharing of anonymous interactive question results provided an opportunity for students to assess
their understanding of the content without fear of embarrassment in front of their peers.

Additionally, the interactive question results provided an opportunity for nurse educators to review with the class those concepts that were misunderstood. Participants also noted that interactive questions help prepare them for the NCLEX. Participants indicated that answering questions using a paper format was not as conducive to their learning as compared to the use of technology-based student response systems.

The above findings suggest that nurse educators use a mixture of passive and active instructional methods to enhance learning. When both strategies are used, educators can meet a variety of student needs enhancing overall learning of the content. When utilizing a mixed strategies approach, educators must be aware of the negative effect that long PowerPoints and fill-in-the-blank PowerPoint assignments can have on student learning. Participants did indicate their enjoyment when using technology in nursing courses; therefore, the use of PowerPoints or other software to present the lecture information is beneficial. The use of interactive questions was beneficial to their learning when aligned with the content objectives and NCLEX format. Nurse educators must seek to incorporate mixed instructional methods that utilize technology to aid student engagement and understanding of the content. When nurse educators use strategies that engage students, more in-depth learning can occur, which will ultimately increase student success and retention, positively impacting the nursing shortage.

**Outlining Group Work Objectives**

Most participants identified group work as the instructional method that they learned from the least in their ADN program. That said, some student participants reported that group work could be helpful, but the instructional approach to group projects in this ADN program was not conducive to their overall learning. Participants in the study described group projects as busy
work and not focused on learning. Participants further explained that the learning process was stifled because they lacked knowledge of the objectives of the group work assignment and because of passive group members. Wong (2018) supported the need for educators to be specific about group project goals and the responsibilities of the group members to ensure a learning focus. Because of the lack of focus on the learning goals, student participants described group projects as an often-rushed process with team members going through the motions to complete the assignment, which hindered the amount of learning from this method.

Wong (2018) described the need for instructors to be mindful of time allocation when assigning group projects. Participants in this study addressed the need for time to complete group projects and the need to have outlined responsibilities and goals required of the group to enhance their learning when using this method. While group projects should not be utilized as the primary instructional method, they should be integrated with other strategies, and instructors should ensure that goals, responsibilities, and appropriate time frames are clearly and carefully established. Doing so will aid in developing the collaboration and teamwork attributes of future nurses and improve the effectiveness of group work as a learning strategy.

**Recommendations for Further Research**

The results of this study offer recommendation for future research involving instructional methods that benefit or create barriers toward student learning. First, it is recommended that this study be replicated using a larger sample size with a more geographically diverse population beyond the Midwest. Conducting this research using a larger sample would help nurse educators better determine those instructional methods that millennial ADN students identify enhanced their learning.
Another recommendation would be repeating the study using the inclusion criteria of ADN students born to Generation Z, the generation that follows millennials. Chicca and Shellenbarger (2018) addressed the need for nurse educators to understand the characteristics of Generation Z as they begin to enter nursing classrooms. Understanding the instructional methods that enhance this generation’s learning should positively influence their success in the classroom and potentially aid the ongoing nursing shortage.

Another recommendation is to complete a mixed study that investigates the correlation of a student’s identified beneficial instructional method and the student’s actual learning obtained from that method, using formative evaluations such as quizzes and exams. While students may assert that they learn from a specific instructional process, it may be that the student enjoys the method, but the strategy does not increase their overall learning of the content. There is a benefit in having measurable data that show the instructional strategies that benefit student learning using a quantitative study methodology.

**Conclusion**

The qualitative study explored the instructional methods that enhanced or created barriers toward learning for millennial students in an ADN program. The purpose of this study was to identify those methods that either helped or hindered student learning and share those findings with nurse educators to ensure time was allocated to advantageous instructional methods that enhance the millennial students’ learning, success, and retention. Through face-to-face interviews, participants described their experiences with a variety of instructional methods used in the ADN program. Data collected from these interviews led to three themes: lectures benefit learning, interactive questions help, and group work creates a barrier to learning.
While all participants noted that lectures benefitted their learning process, many explained that the integration of active learning strategies with a lecture was vital to their ongoing success. While some research continues to encourage educators to omit lecture as a teaching strategy with this generational group (Montenery et al., 2013; Stephens & Gunther, 2016; Swanzen, 2018; Toothaker, 2018), additional research validated the need for a mixed instructional approach (Blissitt, 2016; Toothaker & Taliaferro, 2017).

Although group work has been noted as a preferred learning tool for millennial learners (Desy et al., 2017; Erlam et al., 2016; Montenery et al., 2013; Stephens & Gunther, 2016), participants in this study noted that group work presented barriers to learning. While some of the participants did identify their enjoyment of collaboration and teamwork activities, the findings related to the overall learning obtained from this method were not consistent. Participants identified the need for instructors to set specific guidelines for these projects and outline the responsibilities of team members to ensure learning occurs.

Research supports the need for a mixed instructional modality utilizing both passive and active strategies to enhance student learning (Blissitt, 2016; Toothaker & Taliaferro, 2017). Wong (2018) also noted the potential barriers that group work can pose to student learning if instructors do not outline the objectives of the work. This study provided insights into the ways nurse educators should incorporate group work, technology, and interactive questions with lectures to enhance millennial student learning in an ADN program.
References


Hanson, J. (2016). Surveying the experiences and perceptions of undergraduate nursing students of a flipped classroom approach to increase understanding of drug science and its


115


APPENDIX. PRE-INTERVIEW QUESTIONNAIRE

The following information and questions were provided to participants at least 24 hours before their in-person interviews.

Thought-Provoking Pre-Interview Questions

To aid with study findings, please complete the three questions below to assist in the reliability of the data collection information. Completing the questions should take approximately 5 minutes. Please be prepared to share your answers with the researcher at your interview. The collection of the pre-interview answers will not be reviewed until after the informed consent is signed with the researcher present.

Generation Y members are often referred to as Millennials or Baby Busters; and were born during the years of 1980-2000 (Carter, 2009; Delahoyde, 2009; Erlam et al., 2018; Erlam et al., 2016; Toothaker & Taliaferro, 2017). Millennials are commonly described as innovative, technologically savvy, team player, and self-liking generation (Desy, Reed, & Wolanskyj, 2017; Stephens & Gunther, 2016).

What are some of the millennial characteristics you possess?

Understanding how a millennial student learns best may aid student success. Answer the following questions based on the learning activities completed in your associate degree nursing program.

What learning activity, in which course, did you learn from the most?

What learning activity, in which course, did you learn from the least?