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Examining the Relationships between Gratitude and Readiness for Self-Directed Learning in Undergraduate Nursing Students

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Examining the Relationships between Gratitude and Readiness for Self-Directed Learning in Undergraduate Nursing Students

A Dissertation Presented for the
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Dedication

This dissertation is dedicated to my husband Eric, my family, and ultimately to God.

Psalm 115:1

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With gratitude being the essential variable within this dissertation, there are many people to thank for helping me accomplish this life-long goal. Therefore, in-keeping with the traditions of gratitude, below is a list expressing my appreciation and gratitude.

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Abstract

The purpose of this study was to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. For this study a sample of 59 nursing students were selected from a four-year baccalaureate nursing program, situated in a private, faith-based college in the Southeast United States. During data collection, participants were asked to complete the Gratitude 6-item questionnaire [GQ-6], the 40-item Self-Directed Learning Readiness Scale for Nursing Education [SDLRS-NE], and two demographic questions (i.e., age and class rank). Using both parametric and nonparametric statistics, this study examined eight research questions, and from this exploration several findings did emerge. First, there is a small, but significant positive relationship between gratitude and readiness for self-directed learning ($r = .359$, p = .005; $\rho = .358$, p = .006), and at a closer examination other positive correlations were found between gratitude and desire-to-learn, and between gratitude and self-control. Second, a positive correlation was found between age and one's desire-to-learn, indicating that as age increases so does one's desire-to-learn. Third, among the three predictors for readiness for self-directed learning (i.e., age, class rank, and gratitude), gratitude was the strongest predictor for desire-to-learn, and for self-control.

Recommendations for future research include a replication of this study using a larger, more diverse sample. Conducting more qualitative research to determine what learning experiences nursing students are grateful for and how gratitude influences their readiness for learning. As for the measurement of gratitude, there is a great opportunity for reexamining how gratitude is operationalized and measured. Finally, this study supports the notion that gratitude is an important resource for building the characteristics of readiness for self-directed learning.

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Chapter One

Introduction to the Study

Gratitude has been described as a character strength, a prosocial behavior, a virtue, and a moral affect. Gratitude in its simplest form is recognizing the receipt of a gift, or an appreciation for a favor received (Emmons & Shelton, 2002). Also, gratitude can be expressed as an enduring thankfulness that is sustained across situations and overtime (Peterson & Seligman, 2004, p. 555). Finally, on a grander scale, Wood, Joseph, and Maltby (2008), suggest that "gratitude represents the quintessential positive personality trait, being an indicator of a worldview oriented towards noticing and appreciating the positives in life" (p. 443).

Gratitude as a researchable topic is currently situated within the realm of positive psychology, which can be described as the scientific endeavor to explore human strengths and virtues versus human ailments (Peterson & Seligman, 2004). The distinction made between positive psychology and contemporary psychology "is that mainstream psychology gives priority to negative behaviors and various forms of dysfunction. Positive Psychology, on the other hand, concentrates on positive experiences and positive character strengths or virtues (Jørgensen & Nafstad, 2004, p. 18). Therefore, positive psychology "revisits the average person, with an interest in finding out what works, what is right, and what is improving" (Jørgensen & Nafstad, 2004, p. 18). With this growing interest in positive psychology, there is a need for exploring how gratitude is developed, learned, and how gratitude may influence other fields of research (Peterson & Seligman, 2004). In fact, according to Howells (2004), "the investigation of the relationship between gratitude and the academic learning process is an unexplored territory upon which the discussion in the fields have barely made a mark" (p. 164).

To address this need, this research endeavor begins by asking: Why gratitude in adult education? This question has been proposed by Howells (2012) who argues that gratitude in education, first, serves "a very important need for students to attend to their being [sense of self] at the same time as their thinking" (p. 2). Second, gratitude may alter one's perspectives away from resentment and entitlement to a perspective that focuses on what one has received (Howells, 2012). Third, as a relational concept (Roberts, 2004), gratitude ties people together, making gratitude a "catalyst for developing harmonious relationships" (Howells, 2012, p. 25). This creates not only an internal acknowledgement that one has been recognized as being valuable, but it also creates an outward acknowledgement that someone else has contributed to one's success or good fortune (Roberts, 2004). Therefore, these connections set the stage for exploring how gratitude can influence not only the relationships within the context of learning, but it also lends itself to exploring gratitude on a more subjective and individual level. Essentially, the examination of gratitude in education provides an opportunity to explore the relationships between gratitude and one's readiness to be self-directed, which can lead to new hypotheses about the role gratitude may play in the learning process.

According to Anderson and Brockett (2007), the greatest potential for connecting positive psychology and adult education is "helping learners to develop a deeper understandings of their learning experiences, and themselves" (Anderson & Brockett, 2007, p. 4). This connection also implies that by developing the "whole" learner, there is room for exploring more humanistic concepts, like gratitude. In addition, if "self-directed learning is the most frequent way adults learn" (Anderson & Brockett, 2007, p.5), then gratitude, as a positive psychology trait, may have several implications in self-directed learning. Furthermore, Ambrose, Teal, and Vess (2012) present a conceptual model suggesting that the character strengths of positive psychology and the

concepts of self-directed learning can be mutually beneficial. Finally, Howells (2012), concludes that gratitude in education creates a cultural shift from one of exchanges to a culture that builds character and citizenship.

Statement of the Problem

Although empirical evidence has been established for the importance of measuring self-directed readiness in nursing (Smedley, 2007; Dynan, Cate, & Rhee, 2008; Kocaman, Dicle, & Ugur, 2009) and in adult education (Merriam & Bierema, 2014; Merriam, Caffarella, & Baumgartner, 2007; Caffarella, 1993; Brockett & Hiemstra, 1991; Oddi, 1987), what is lacking is knowing how certain attitudes, emotions, or character strengths (e.g., gratitude) influence the individual nursing student's readiness to be self-directed. Furthermore, the nursing literature specifically lacks any kind of evaluation on how gratitude may influence self-directed readiness, and although gratitude in education has been explored by Howells (2012), there has not been an attempt to connect gratitude to the concepts of self-directed learning.

A starting point for this line of inquiry comes from Lunyk-Child et al. (2001), whose qualitative study explored faculty and students' perceptions of self-directed learning. From this study they found that students "stated that although self-directed learning has positive outcomes, the process of becoming a self-directed learner can be painful" (Lunyk-Child et al., 2001, p.119). This notion, that the experiences of becoming a self-directed learner can be painful, provides significance for determining how positive emotions (e.g., gratitude) can help to alleviate or lessen these negative emotions during the development of self-directed learning skills. From Lunyk-Child et al. (2001) study, what emerges is an understanding that, during self-direction, the students "undergo a transformation that begins with negative feelings (i.e., confusion, frustration, and dissatisfaction) and ends with confidence and skills for lifelong learning" (p. 116).

Therefore, the gap in the literature is exploring how gratitude can influence one's readiness for self-directed learning, which I suspect that gratitude may help to alleviate the negative feelings that arise during the process of becoming self-directed.

In fact, gratitude may benefit the self-directed learner's readiness in four distinct ways. "First, gratitude can improve one's experience. Second, gratitude amplifies the positive things in one's social environment. Third, gratitude may encourage self-acceptance through promoting positive affectivity" (Watkins, 2014, p. 251). The fourth benefit of gratitude is best described by Watkins (2014), who states that "when one is able to see and be grateful for the good that comes from bad events they are more able to deal effectively with that event, and this might be another reason why grateful people tend to be happy people" (p. 251). This notion is echoed by Wood et al. (2008) who suggest that, "people who feel a lot of gratitude in life have specific appraisal tendencies that lead them to characteristically appraise the benefits of situations" (p. 282). Therefore, gratitude as it relates here is viewing gratitude as a personal resource that could enhance nursing students' readiness for self-directed learning by developing the essential adaptive skills for assuming the responsibilities for learning, and for having the ability to reframe setbacks (i.e., confusion, frustration, and dissatisfaction) in more proactive ways. Finally, according to Fredrickson (2001) "the take home message is that positive emotions [e.g., gratitude] are worth cultivating, not just as end states in themselves but also as a means to achieving psychological growth and improved well-being over time" (p.218).

Purpose of the Study

Based on a lack of understanding of how gratitude may connect with self-directed readiness, the main purpose of this study is to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate

nursing program. A better understanding of these relationships may uncover important resources

for developing self-directed learning skills. Also, by investigating these relationships within

nursing education, nurse educators and students can gain a better understanding of how

developing gratitude can not only improve one's learning experience, but they can gain a better

understanding of how developing gratitude can enhance the relationships involved in the learning

process. Finally, this study will add to the body of knowledge by exploring the relationships

between gratitude and the concepts of self-directed learning across research disciplines.

<div align="center">**Research Questions**</div>

The research questions guiding this correlational study include the following:

(1) Is there a significant relationship between gratitude and readiness for self-directed

learning among nursing students enrolled in a four-year baccalaureate nursing program?

(2) Does a significant relationship exist between gratitude and the three factors of readiness

for self-directed learning: (1) self-management, (2) desire to learn, and (3) self-control

among nursing students enrolled in a four-year baccalaureate nursing program?

(3) Is there a significant relationship between gratitude by age and class rank among nursing

students enrolled in a four-year baccalaureate nursing program?

(4) Is there a significant relationship between readiness for self-directed learning and age

and class rank among nursing students enrolled in a four-year baccalaureate nursing

program?

(5) Is there a significant difference in gratitude by class rank?

(6) Is there a significant difference in readiness for self-directed learning by class rank?

(7) Does gratitude or readiness for self-directed learning differ by age groups (e.g.

participants less than 25-yrs of age versus those greater than 25-yrs of age)?

(8) To what extent can the combination of selected demographic variables (i.e. age, class

rank) and gratitude scores predict readiness for self-directed learning scores?

Theoretical Framework

The theoretical framework that provides the boundaries for this study is The Broaden and

Build Theory by Fredrickson (2001). Also, I have selected Hiemstra and Brockett's (2012)

revised model of self-directed learning; the Person, Process, Context Model [PPC] in an effort to

build a bridge between gratitude and self-directed readiness. This conceptual model provides

context for the study by assuming that readiness for self-directed learning is situational and

maturational. More specially, "the context of one's personal life generates much of [his or her]

learning, and [they] may be more comfortable and capable of self-directed learning [SDL] in an

area or environment where we have some experience" (Merriam & Bierema, 2014, p. 71). In

other words, if students have more positive experiences, have more things to be thankful for

because of the opportunities gained from education, and have an overall positive outlook on

learning, it is suspected that this positive orientation would influence how one goes about

learning.

Furthermore, the Broaden-and-Build Theory ties the humanistic goals of self-directed

learning (Brockett & Hiemstra, 1991) with gratitude by exploring the assumption that by

experiencing gratitude, "individuals grow and develop, and individuals can transform themselves

to become more creative, knowledgeable, resilient, socially integrated, and healthy"

(Fredrickson, 2004, p. 153). Also, Fredrickson's Broaden-and-Build Theory suggests that

positive emotions build social and personal resources by broadening the repertoires of cognition,

attention, flexibility, and certain coping mechanisms (Fredrickson, 2001). This implies that

building a positive emotion like gratitude can broaden one's appraisal by increasing "momentary

thought-action repertoires for building enduring personal resources" (Fredrickson, 2004). For example, people with a positive outlook are more apt to deal with setbacks (i.e., resilience), find more creative ways of dealing with setbacks (i.e., coping), and have a more global appreciation for change (i.e., flexibility) (Fredrickson, 2001). Finally, according to the Broaden-and-Build Theory, the development of positive emotions are cumulative and this creates an upward spiral of positivity and positive adaptability (Fredrickson, 2001).

Significance of the Study

The significance of this study is to expand the boundaries of self-directed learning by exploring other potential influencing variables related to readiness for self-directed learning. Furthermore, this study addresses an identified gap within the literature, where many have called for more research. For example, support can be found in Oddi's (1987) comment that "the linking of self-directed learning and personality could provide a unified and comprehensive framework within which various other aspects of self-directed learning could be studied and interrelated" (p. 28). In addition, DeJoy and Herrmann (1993) suggest that an important part of any successful educational ventures for adult learners includes addressing the feelings and emotions associated with those ventures. Therefore, the examination of gratitude and readiness for self-directed learning is a significant first step in exploring how positive emotions relate to learning. Moreover, this need for more research is echoed by Bruin (2007) and Spears (1992). According to Bruin (2007), "the relationship between personality and self-directed learning have not been the focus of much research" (p. 228). And according to Spear (1992), "the search for personality traits, as well as the verification of skills and attitudes, continue to command attention" (p. 129). Lastly, the significance of this exploratory study is found in the following statement by Emmons (2004), who states "given that gratitude is a fundamental attribute of

human beings and a potential key to human flourishing, we should endeavor to learn as much as we can about its origins, its forms of expression, and its consequences for individual and collective functioning" (p. 13).

Delimitations

In clarifying the specific boundaries of this study, several delimitations have been established. First, the time for collecting survey date will begin on October 20th, 2014 and data collection will end on November 20th, 2014 at midnight. Second, the location for this study will be a four-year baccalaureate nursing program situated within a private, faith-based college in the Southeast United States. The sample for this study includes only those individuals who meet the predetermined criteria. The criteria for this study include:

1. Participants must be enrolled in a four-year baccalaureate nursing program, and considered to be a full-time student (at least 12 credit hours per semester);
2. Participants must be able to read and interpret English;
3. Participants must voluntarily complete questionnaires;
4. Participants must be 18 years or older and sign an informed consent form.
5. The setting for this study will be situated in a private faith-based institution.

Limitations

The limitations of this study include the generalizability of findings due to sample size, the small scale of this study, and the use of a correlational design. Although correlational designs are useful for determining relationships between concepts and for generating new hypotheses, they cannot be used to establish causation. A second limitation is the inability to control all extraneous variables because of the subjective nature of measuring attitudes, beliefs, and perceptions. Third, there are some threats to validity and reliability, such as participants'

responses to the surveys may be influenced by social desirability, or a desire to answer "in a way that seems socially desirable" (Bordens & Abbott, 2011, p. 273). Finally, other response biases may influence results, for example, "when individuals consistently select extreme alternatives" (Polit & Beck, 2004, p. 358).

Outline of the Study

Having established the key variables for this study (i.e., gratitude and readiness for self-directed learning) in Chapter One and in Table 1.1. In Chapter Two, a synthesis of the literature will be presented to establish what is known and not known about these key variables. Next, I will transition into the Method Section by describing the research questions that will inform the research design. Following this, the Design, Procedures, and Analysis are described.

Table 1.1

Definitions of Key Terms

Term	Citation	Definition
Self-directed Learning in Nursing Education	Lunyk-Child et al., (2001)	Self-directed learning is oriented towards "defining personal objectives, understanding the dynamics of behavior changes, information acquisition /assimilation of self-evaluation are acquired with the context of a respectful and facilitative teacher-learner relationship where students take responsibility for their own learning" (p. 116)
Readiness for Self-directed Learning	Wiley (1983)	"The degree [to which] the individual possess the attitudes, abilities and personal characteristics necessary for self-directed learning" (p. 182).
Readiness for Self-directed Learning in Nursing Education	Fisher, King, & Tague, (2001)	Readiness for self-directed learning comprised of three essential characteristics: (1) self-management, (2) desire for learning, (3) self-control.
Self-Management	Garrison (1997)	"Indicates an aspect of external task control specific to the management of learning activities, which are intimately linked with goal setting and metacognitive strategies. Self-management is concerned with task control issues" (p. 22).

Table 1.1 Continued

Term	Citation	Definition
Desire-to-Learn	Merriam & Bierema, (2014)	"Learning for the love of intellectual challenge, or desire to achieve mastery of a topic, or practice for the satisfaction it brings" (p.147).
Self-Control	Garrison (1997)	"The process whereby the learner takes responsibility for the construction of personal meaning" (p. 24).
Gratitude	Wood, Froh, & Gereghty (2010)	"Is part of a wider life orientation towards noticing and appreciating the positive in the world" (p. 891).
Gratitude in Education		Gratitude is a relational concept, built on acknowledging and appreciating not only the benefits one has received, but it is a state of awareness oriented towards appreciating the broader connections to something other than oneself.

Chapter Two

Literature Review

The study of gratitude has experienced tremendous growth over the past 10 years, and this can be attributed to the conclusion by Peterson and Seligman's (2004) that "given that gratitude has potentially important consequences for individuals and society, it is remarkable that psychologists specializing in the study of emotions have, by large, failed to explore its contours" (p. 557). As this line of inquiry expands into helping individuals and societies flourish, it is time for adult educators to determine its place in adult education. Therefore, as stated in Chapter One, the purpose of this study is to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. In this chapter, a review of the relevant literature related to gratitude and readiness for self-directed learning will be reviewed, as well as the potential connections between concepts. For organization, this chapter is divided into three main sections. The first section is a review of the literature regarding gratitude. The second section reviews the literature related to self-directed learning and the concepts of readiness (self-management, desire for learning, and self-control), and this review will conclude by describing how these two concepts can be mutually supportive.

Evaluating Existing Literature

A comprehensive search of Academic Premier, PsycINFO, Google Scholar, Web of Science, and CINAL databases were accessed to obtain the current literature (2006-2012) relevant to gratitude, readiness for self-directed learning, and self-directed learning. Several search terms were used to collect and identify important literature. For the concept of gratitude, I used the following terms: "gratitude," "gratitude and education," "gratitude and spirituality," "gratitude and well-being," and "measuring gratitude." In the same fashion, I used the following

terms to explore readiness for self-directed learning: "self-directed learning," "readiness for self-directed learning," "emotions and self-directed learning," "measuring self-directed learning," "facilitating self-directed learning in nursing," and "barriers to self-directed learning." To provide clarity to the constructs of gratitude and readiness for self-directed learning, I expanded the literature review when meaningful articles were discovered. In addition, the reference list provided by original works were reviewed to expand the search for defining, clarifying, and measuring the constructs. I also searched specific journals (e.g., *The Journal of Positive Psychology, Cognition and Emotion, Journal of Advanced Nursing, Journal of Professional Nursing, Journal of Nursing Education, Nurse Education Today, and The International Journal of Self-directed Learning*) for discipline specific articles. The exclusion of articles were based on publication year and its relevance to gratitude and readiness for self-directed learning. Furthermore, due to the limited amount of research testing gratitude within nursing and adult education, literature from other disciplines were explored to support conclusions. Finally, the literature produced by the experts in gratitude and self-directed learning were reviewed through the examination of their published works, which included peer-reviewed articles, instrumentation development, and published books.

Gratitude

Gratitude, as a concept, has been defined in multiple ways. For example, gratitude has been defined as a character strength (Peterson & Seligman, 2004), a prosocial behavior (McCullough & Tsang, 2004), a moral motivator (Shelton, 2004), a dispositional trait (McCullough, Emmons, & Tsang, 2002; Watkins, Woodward, Stone & Kolts, 2003), a positive emotion (Fredrickson, 2004), and a virtue (Emmons, 2004; Emmons, 2012). However, like other broad concepts, growth in the empirical and conceptual literature have blurred the lines used to

define what gratitude is and its many subforms. Therefore, I will begin with an inductive

approach to describe gratitude in its most basic form, and then I will move outward to explore

the boundaries of gratitude with hopes to provide a workable framework for defining the depth

and brevity of gratitude as a timeless topic of inquiry.

Gratitude in its simplest form is recognizing the receipt of a gift, or an appreciation for a

favor received (Emmons & Shelton, 2002). Gratitude is defined by Oxford's American Pocket

Dictionary (2002) as a state of "being thankful; [a] readiness to return kindness" (p. 344), and by

Webster's New Explorer College Dictionary (2007) as "a state of being grateful; thankfulness"

(p.414). For clarity, grateful and thankful mean "feeling or expressing gratitude: Grateful applies

to appreciation for having received favors from other persons; thankful suggests a more

generalized acknowledgement of what is vaguely felt to be providential" (Webster's New

Explorer College Dictionary, 2007, p. 414). This language is important for understanding how

gratitude has been used within the literature.

First, the recognition of a gift and the appreciation for that gift denotes gratitude as an

emotional/personality trait. "As a trait, gratitude is expressed as an enduring thankfulness that is

sustained across situations and overtime" (Peterson & Seligman, 2004, p. 555). At a higher level

of abstraction, the distinction between personal and transpersonal forms of gratitude is "a sense

of thankfulness and joy in response to receiving a gift, whether the gift be a tangible benefit from

a specific other or a moment of peaceful bliss evoked by natural beauty" (Peterson & Seligman,

2004, p. 554). For example, this higher level of gratitude is the gratefulness felt during peak

experiences (Peterson & Seligman, 2004). The cornerstone of gratitude is the notion of

underserved merit; it is freely bestowed, and it is a willingness to recognize the unearned

increments of value in one's experiences (Emmons & Shelton, 2002). At the highest level of

abstraction, gratitude is described as the parent of all virtues because of its contribution to living well (Wood, Joseph, & Linley, 2007). Virtues are defined as those good habits that "connote excellence in personal character" (Emmons & Shelton, 2002, p. 462). As a virtue or moral affect, gratitude benefits both the individual and society because gratitude helps to build relationships, and these relationships are essential to the survival and well-being of individuals, groups, and societies (Emmons, 2008). This building of relationships reflects an outward consequence of gratitude, which is the promotion of prosocial behaviors, and it is within these prosocial behaviors that gratitude operates at its deepest level; in essence, gratitude at this level is:

> An interior depth we experience, which orients us to an acknowledged dependences, out of which flows a profound sense of being gifted. This way of being, in turn, elicits a humility, just as it nourishes our goodness. As a consequence, when truly grateful, we are led to experience and interpret life situations in ways that call forth from us an openness to and engagement with the world through purposeful actions, to share and increase the very good we have received. From a psychological perspective, this fullest sense of gratitude represents a substantial altering of a person's outlook. (Shelton, 2004, p. 273)

With gratitude taking on so many forms and broad definitions, a usable framework is helpful when describing the current boundaries of gratitude as a concept. Building on Gulliford, Morgan, and Kristjánsson's (2013) recent literature review, the following examples are used to describe the structures of gratitude. These structures are referred to as a dyadic, triadic, and a quadratic relationship. Finally, as a frame of reference, gratitude can be understood as either generalized or directed towards someone or something.

A dyadic relationship (see Figure 2.1), "envisages gratitude as the habitual focusing on and appreciation of the positive benefits that life brings in the absence of any specific benefactor" (Gulliford et al., 2013, p. 301). Examples of this definition within the literature can be found in Wood, Joseph, & Maltby's (2008) definition that "gratitude represents the quintessential positive personality trait, being an indicator of a worldview oriented towards noticing and appreciating the positive in life" (p. 443).
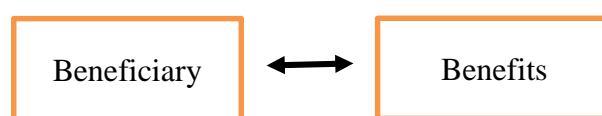
Figure 2. 1

A Dyadic Structure of Gratitude

In addition, Lambert, Graham, and Finchman (2009) consider this generalized sense of gratitude as being a "state of awareness or appreciation for that which is valuable and meaningful to oneself" (p. 1194). Stated another way, gratitude within this dyadic structure is a way of putting one's life in perspective, or as Wood et al. (2010) theorizes, gratitude "can be seen as a wider life orientation towards noticing and appreciating the positive aspects of life" (p. 891). Finally, according to Gulliford et al. (2013) "ordinary language already harbors an independent concept of what some theorists want to call generalized gratitude. That concept is "appreciation" and it is clearly dyadic in nature. It denotes a relationship where the person acknowledges the value and meaning of this state and feels an emotional connection to it" (p. 301).

A triadic relationship (see Figure 2.2), was first developed by Roberts (2004), which denotes a relationship between three factors: the beneficiary, the benefactor, and the gift.
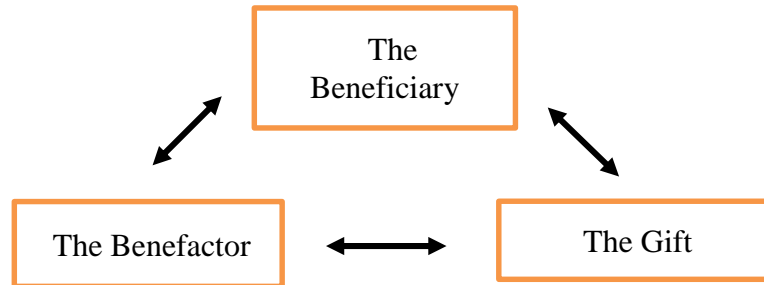
Figure 2. 2

A Triadic Structure of Gratitude

These relational ideas tie people together, because "the focus can be either the gift, the giver, or the receiver" (Roberts, 2004, p. 61). This creates not only an internal acknowledgement that one has been recognized as being valuable, it also creates an outward acknowledgement that someone else has contributed to one's success or good fortune (Roberts, 2004). Watkins (2014) summarizes these ideas in the following way, "in this view, gratitude is expressed as a token of appreciation for the benefit and for the beneficiary's relationship with the benefactor, and the beneficiary gives back to their benefactor not because they have to, but rather because they want to" (p. 37). Therefore, this triadic structure helps to distinguish gratitude as an essential social emotion promoting prosocial behaviors through moral actions.

For example, gratitude is said to have three moral functions: it acts as a moral barometer, a moral motive, and a moral reinforcer (McCullough, Kilpatrick, Emmons, & Larson, 2001). As a moral barometer, "gratitude is dependent on social-cognitive input" (McCullough & Tsang, 2004, p. 125), and it is essentially an "affective readout that is sensitive to a particular type of change in one's social relationships" (McCullough et al., 2001, p. 252). As a moral motive, gratitude promotes prosocial behaviors (Watkins, 2014). Third, as a moral reinforcer, gratitude, "provides positive reinforcement of prosocial behaviors" (Watkins, 2014, p. 242). Lastly, "the

moral principles [most] relevant to gratitude are reciprocity and equity" (McCullough & Tsang, 2004, p. 134).

Therefore, gratitude, as a moral affect, "produces the moral behaviors that are motivated out of concern for another person" (McCullough et al., 2001, p. 251), and it is the search for the "goodness" in others. It is here in this triadic relationship of gratitude that these conceptual ideas of gratitude become more tangible outcomes by promoting prosocial behaviors oriented toward building social relationships and promoting civility. Furthermore, this sets the stage for understanding how gratitude can motivate prosocial behaviors through the processing of positive emotions into actions, and it helps to explain the functionality of gratitude (Watkins, 2014). Finally, what is missing from this triadic relationship is knowing how gratitude affects others, which transitions this framework into the quadratic relationship structure.

A quadratic relationship (see Figure 2.3), questions the role of vicarious gratitude experiences on a third party (Gulliford et al., 2013).
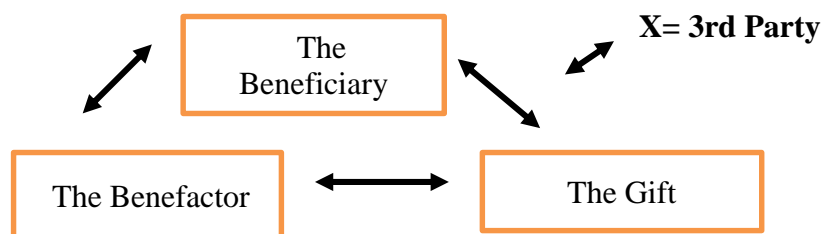
Figure 2. 3

A Quadric Structure of Gratitude

An example of a vicarious gratitude generating experience would be an event where my (the 3rd party in this case) level of gratitude increases by watching a grateful exchange between a nursing student and his or her patient, because the experience of caring for others is an experience shared between myself and the student. For clarity, these experiences are considered communal gains, "the third party and the beneficiary are tied together in the same community and therefore what the beneficiary gains the 3rd party also gains" (Gulliford et al., 2013, p. 306). This particular structure of gratitude expands the prosocial characteristics of gratitude because communal gains increase social worth by generating feelings that such actions are accepted and valued within the community (Gulliford et al., 2013), which further explains how gratitude can positively influence culture.

To summarize the conceptual literature, gratitude can be understood in two distinct ways: first, gratitude is a more generalized or umbrella term describing a particular worldview oriented towards noticing and appreciating the positive aspects of one's life. Second, gratitude and its subforms are targeted expressions of grateful feelings or emotions, which display the outward expression of emotions through action. The conclusion from these structural views of gratitude is the importance of clarifying, and explicitly stating what form or forms of gratitude that is being examined or studied and how this informs the practicality of gratitude. To this end, if gratitude is more than a feeling, and it is a trait to be desired, sought after, and nurtured, then the next step is to explore how gratitude is developed and what impact gratitude may have on one's sense of self, or one's relationship with others.

Cognitive Development and Gratitude

From a developmental perspective, gratitude is thought to be a maturational process. Assuming that growth does not occur in isolation but in the context of everyday life, I propose

that gratitude, as a relational concept, not only promotes personal growth, but it promotes collective growth through civility. However, the first question to answer is whether or not a person must be at a specific cognitive level before a grateful disposition can be reached. I begin with McAdams and Bauer's (2004) developmental thoughts that the full experience of gratitude begins in childhood when a child develops a subjective sense of self. According to McAdams and Bauer (2004), "at this time, children first become to own their experiences, to apprehend what they do, think, and feel as belonging to them" (p. 88). As this sense of self develops, the next stage is seeing oneself as an intentional agent and seeing others in the same light. More specifically, "as an intentional agent, gratitude assumes some basic understanding that human agents intend to do things over time, for which one may feel some sense of gratefulness" (McAdams & Bauer, 2004, p. 88). Furthermore, Froh et al. (2011) suggest that gratitude emerges in childhood through the interactions with one's environment and "that the experiences of gratitude increase as children matures" (p. 3). For a more direct answer, "gratitude likely emerges between seven and 10 years of age because it becomes more unique; tied to those social-cognitive judgments" (Froh et al., 2011, p. 3). This implies that through the process of maturity, the child is able to understand others' intentions. For example, children at this level are able to interpret the intentions of the benefactor's (Froh et al., 2011).

As the child advances into the adolescent years, Froh et al. (2011) suggest that the ability to empathize is a strong catalyst for developing gratitude. This ability to empathize is driven by advancing social-cognitive appraisal. At this stage the adolescent "sees him/herself and others in more complex ways" (McAdams & Bauer, 2004, p. 90). Through the influences of the environment, the adolescent creates an internalized theory that motivates behaviors, attitudes, and beliefs (McAdams & Bauer, 2004). This implies that as a person develops, gratitude

develops as an accumulative process of interpretations of the intentions of others, and seeing oneself in a complex and dynamic social environment. Finally, as this understanding grows, it is possible for the person to expand one's focus to include more and more things to be thankful for (McAdams & Bauer, 2004).

In my efforts to solidify this notion of cognitive development and the formation of gratitude, I turn to Kegan's (1994) work on ways of knowing. Kegan's ways of knowing amplifies the works of McAdams & Bauer (2004) and Froh et al. (2011) by describing how the child/adolescent views his or her world. According to Kegan (1994), the evolving "self" moves from independent elements, to durable categories, to finally, cross-categorical ways of meaning-making. For example, a child begins in an egocentric moment-to-moment expression of thoughts and feelings. At this stage there is no identification of others, only a sense of "*I*". Gratitude at this stage would be an immediate emotional response associated with grateful feelings. As this way of knowing advances into durable categories, the child is able to organize thoughts into categories. This allows for the introduction of others points of view, and the realization of self compared to others; there are now multiple points of view. It is also during this phase that more concrete and logical decision making occurs. Therefore, as this stage relates to gratitude, it may be seen as a mechanism of reward: "I will be rewarded if I share my toys." This example exemplifies this dual category mentality, meaning it's not about doing nice things for others, but it's more for the rewards I will receive because of the kind act.

As durable categories transition into cross-categorical ways of knowing, the person is able to notice the interactions between categories. According to Kegan (1994), this "makes their thinking [more] abstract, their feelings a matter of inner states and self-reflective emotion, and their social relating capable of ideas larger than the self" (pp. 31-32). This notion of seeing the

interactions between self and others, and seeing the self in relation to others, is a fundamental

component of Roberts (2004) aforementioned relational definition of gratitude: "the gift, the

giver, and the benefactor" (p. 61). It moves the moment-to-moment experiences of gratitude into

a more generalized sense of gratitude by being able to internalize and interpret the multiple

relationships one is thankful for. If each phase does not occur in a sequential fashion, but rather

these "relation[s] are transformative, qualitative, and incorporative" (Kegan, 1994, p. 33), then

it seems reasonable to assume that in order to reach the highest level of gratitude (a grateful

disposition), one would need to have some capacity for cross-categorical ways of knowing.

More specifically, one would need an outward focus, an ability to see, interpret, and formulate

meaning from others in the context of their experience. However, this does not answer whether

or not one can learn to be more grateful. Therefore, this question flows nicely into the

theoretical ideas of the social-cognitive model. This model may provide some useful insights

into how someone can learn to broaden one's relational perceptions.

Because it is the interpretation of experiences that expands relational perceptions, the

social-cognitive model adds the notion of benefit appraisal. This can bridge state levels of

gratitude (independent elements and durable categories) to trait levels of gratitude (cross-

categorical ways of knowing) through the appraisal of value, cost, and genuine helpfulness of an

experience (Wood, Maltby, Stewart, & Linley, 2008). There are four basic assumptions of this

model, which include: (1) people perceive aid/help from others differently, (2) recognizing

aid/help as a benefit produces state gratitude, (3) those with higher trait levels of gratitude will

have a stronger benefit appraisal, and (4) this higher benefit appraisal explains the association

between state and trait levels of gratitude (Wood et al., 2008). The value of using this model for

explaining how a person can broaden his/her level of knowing (i.e., gratitude) is that through

benefit appraisal, one can develop an outward appreciation for others. In fact, the very social-cognitive nature of this model "integrates social situations, individual difference, and the mediating cognitive mechanisms [meaning-making]" (Wood et al., 2008, p. 282) needed to interpret experiences.

In evaluating value, cost, and genuine helpfulness, the social-cognitive model has been shown to explain that "state gratitude is largely determined by situations and their interpretations, with trait gratitude being a smaller but more robust determinant of state through the mediating mechanism of benefit appraisal" (Wood et al., 2008, p. 285). This implies that appraisal is the primary predictor of state gratitude, and this is situational and highly individualized as the person assigns the value, cost, and the degree of genuine helpfulness to his or her experience. By knowing that appraisal is individualized, the next step is to understanding how appraisal can increase ways of knowing (i.e., gratitude) by determining on an individual level what is valuable, costly, and genuinely helpful (Wood et al., 2008). Expanding these ideas can help to uncover the schematic thought processes of not only trait gratitude but it advances current gratitude interventions geared toward developing the skills for trait gratitude (Wood et al., 2008).

In concluding this section, it appears that a higher level of cognitive functioning is needed for trait gratitude, or a more complex way of knowing (Kegan, 1994). However, the social-cognitive model opens the door for hypothesizing about how individuals can not only expand ways of knowing, but through benefit appraisal, grateful experiences can eventually lead to a more generalized form of gratitude. Therefore this ties together the thought that growth does not occur in isolation, but personal growth is driven by the social contexts of one's life. Finally, increasing one's level of benefit appraisal also enhances the relational definition of gratitude by expanding one's relational perceptions to include others through new schematic thinking.

Spiritual Development and Gratitude

Although not a requirement, spirituality and religiosity have greatly influenced the current understanding of gratitude. It is important, first, to distinguish the difference between spirituality and religiosity and describe how they relate to gratitude. Following Watkins (2014), the spirituality referred to here is the more inclusive idea of spiritual transcendence. According to Watkins (2014), spiritual transcendence "refers to a nondenominational spirituality where an individual is able to stand outside of her or his immediate place in time and space, and see one's place in the context of 'the big picture'" (p. 89). Said another way, spiritual transcendence is "having coherent beliefs about the higher purpose and meaning of the universe; knowing where one fits within the larger scheme" (Peterson & Seligman, 2004, p. 30). More importantly, "individuals high in spiritual transcendence are able to see that life has a larger meaning beyond the self" (Watkins, 2014, p. 89), or it can be the "participation in a divine relationship" (Peterson & Webb, 2006, p. 109).

Gratitude, as it relates to spirituality, is the notion that higher levels of spiritual transcendence can amplify the amount of gratitude one experiences and expresses, and vice versa (Emmons & Kneezel, 2005). For example, in Emmons and Kneezel's (2005) correlational study on spirituality and religion, they found that spiritual transcendence was positively correlated to dispositional gratitude. They rationalized this finding as "grateful people are thus more likely to acknowledge a belief in the interconnectedness of all life and a commitment to and responsibility to others. In that they see life as a part of a wider, or transcendent context" (p. 145). More experimental testing will be needed to support this positive correlation, but one could also rationalize this relationship by referring to the relational attributes of gratitude. More explicitly, a relationship with a divine benefactor (Emmons & Kneezel, 2005). When one is more acutely

aware of the abundant gifts in one's life, including gifts that cannot be associated with another human, one may look to a higher power as being the benefactor. Furthermore, this notion is echoed by Watkins (2014) who states "in the context of a benefit with no obvious human benefactor–creates a situation where one is more likely to believe in a supreme benevolent being such as God" (p. 94).

With regard to religiosity, this section focuses on intrinsic religiosity versus external religiosity. The rationale for focusing on intrinsic religiosity stems from Tsang, Schulwitz, and Carlisle's (2012) conceptualization that the "intrinsically religious allows religious teachings and compassions to motivate their entire lives; whereas, extrinsically religious people latch onto religion for comfort but do not internalize religious teachings" (p. 41). Furthermore, Watkins, Woodward, Stone, and Kolts (2003), found that "individuals who engage in religious practice as an end in itself tend to be more grateful, but those engaged in more instrumental [extrinsic] religiosity tend to be less grateful" (p. 440). Based on these rationales, intrinsic religiosity as it is defined here refers to a "mature personality centered on [his or her] religious beliefs" (Tsang et al., 2012, p. 41).

In referencing the empirical literature, correlational studies have shown a relationship between trait gratitude and religious practices (Emmons & Kneezel, 2005), religious orientation (Watkins et al, 2003), religious coping (Emmons & Kneezel, 2005), and finally, a more secure attachment to God (Watkins, 2014). Further support emerges from Rosmarin et al. (2011) who found that "the interaction of religion commitment and religious gratitude added unique variance in predicting mental well-being; suggesting that being grateful to God enhances the psychological benefits of gratitude" (p. 389). From Lambert et al. (2009), they propose three rationales for acknowledging the relationship between gratitude and religion. First, different

forms of religion, beyond Christianity, promote /encourage gratitude. Second, those who

consider themselves to be more religiously oriented may be more inclined to attribute positive

events, such as appreciating the beauty of nature as gifts from God, which builds grateful

emotions. Third, religious individuals may actively seek opportunities to enhance gratitude.

Therefore, from these assumptions Lambert et al. (2009) hypothesized and tested that "common

religious practices of thanking God in prayer is a likely explanation for this relationship" (p.

140).

As with spirituality, the supporting evidence for the relationship between religion and

gratitude remains in the early stages, and more cause and effect investigations are needed.

However, in an effort to move beyond correlational studies and to establish causal relationships,

Lambert et al. (2009) conducted four studies measuring not only the relationship between pray

and gratitude, but measured the effects of prayer on participant's level of gratitude. Within this

study, participants were randomly assigned into four conditions: (1) daily prayer condition

focused on his/her romantic partner; (2) general daily prayer condition; (3) daily positive

thinking condition about his/her romantic partner; and (4) daily positive thinking condition.

According to Lambert et al. (2009) "we found that participants who were randomly assigned to

pray evidenced greater gratitude than those who were randomly assigned to a control condition"

(p. 146). A broader explanation for this relationship may come from Adler and Fagley (2005)

who associate prayer with rituals. According to Adler and Fagley (2005) "rituals help us to stop

and take notice of the things around us" (p. 82). Therefore, based on this explanation, prayer, like

rituals, may serve as an on-going reminder to be thankful for the gifts one has.

Self-Authoring and Gratitude

In this final section of development, I suggest that gratitude could be a form of self-authorship. The self-authorship referred to here is a "self-authorship that can coordinate, integrate, act upon, or invent values, beliefs, convictions, generalizations, ideals, abstractions, interpersonal loyalties, and intrapersonal states" (Kegan, 1994, p. 185). Furthermore, this self-authoring "involves each person determining for him or herself how to construct mutually beneficial relationships" (Baxter-Magolda, 2008, p. 271). Based on these definitions, can gratitude be a mechanism for becoming self-authoring? This may be answered by, first, looking at how gratitude is applied in everyday life, and secondly, by exploring how gratitude influences one's system of belief.

Beginning with gratitude in everyday life, Watkins et al. (2003) found a moderate correlation between gratitude and internal locus of control. Citing his previous study, Watkins (2014) states that "a person with an internal locus of control does not expect others to contribute to their future well-being; they believe that they themselves are in control of their well-being" (p. 82). This sense of control over one's level of well-being builds a supportive link for gratitude and self-authorship. For example, taking this notion of locus of control, or control over one's own well-being, is similar to the idea that an individual's identity is "not authored by them [others], but it authors them" (Kegan, 1994, p. 184). Stating this idea more clearly is to say that a grateful person's level of well-being is not authored by others, but a grateful person is the author of his/her gratitude. This means that there is a sense of control, a sense of ownership in choosing to be more aware of the many benefits one has obtained. The next supportive link for this notion comes from Kegan (1994) who states that "the self-authoring capacity to 'decide for myself' does not have to implicate the stylistic preference to 'decide by myself'" (p. 219). This

implies that there can be self-authoring qualities to gratitude. For example, gratitude, as a relational concept between the self, others, and the gift, can become self-authoring because the person has control over how he/she recognizes and perceives a benefit. More specifically, the person can regulate, construct, and amplify the degree of gratitude felt by authoring those feelings. The third supportive link is the idea that a self-authoring person can create a system "that acts upon the psychological surroundings and authors its own values, it is made up by connections according to its own standards" (Kegan, 1994, p. 224).

The connection to gratitude can be found in how grateful people experience gratitude. In fact, McCullough, Tsang, and Emmons (2004) state that "because of dispositionally grateful people's proneness to grateful moods is driven so strongly by personality, their grateful moods may be less dependent on the ebb and flow of gratitude-relevant life events" (p. 307). Therefore, this implies that a high disposition for gratitude is not only sustaining, but it exemplifies internal cognitive processes that are essential for self-authoring. Finally, self-authorship is supported by the following thought: "a gracious gift offered freely must still be received" (Anderson, Quarles [Mike], & Quarles [Julia], p. 58).

Interventions for Promoting Gratitude

Interventions for promoting gratitude are not only aimed at cultivating an attitude of gratitude, but it is ultimately about increasing one's sense of well-being. Currently, there are two, very similar, definitions utilized to defining interventions for promoting well-being. First, Lyubomirsky and Layous (2013) define "positive activities as simple, intentional, and regular practices meant to mimic a myriad of healthy thoughts and behaviors associated with naturally happy people" (p. 57). Second, according to Toepher, Cichy, and Peters (2011), positive activities are intentional and self-directed acts oriented toward improving one's own happiness.

This has important implications for explaining how these activities promote the important

mechanisms for building resilience, sustaining a positive mood, and promoting intrinsic

motivation (Toepher et al., 2011).

It is proposed that the interventions for cultivating gratitude are unique and individualized

(Howells, 2012), and there is an initial investment required before one can experience the

rewards from developing a practice of gratitude (Emmons, 2013). Currently, empirical testing

on positive interventions have included such activities as "counting one's blessings, performing

kind acts, cultivating strengths, visualizing one's ideal future self, and meditation" (Lyubomirsky

& Layous, 2013, p. 57). Of these interventions, gratitude recounting has been the most

extensively tested intervention (Watkins, 2014). Gratitude recounting is described as creating a

simple list of three to five items one is thankful for, which aims to identify the benefits one's has

in his or her life (Wood et al., 2010). Other common gratitude interventions are expressive letter

writing and grateful reflections. Expressive gratitude letters has been tested by Toepfer et al.

(2011), and from their research, they found that "writing letters of gratitude increased

participants' happiness and life satisfaction, while decreasing depressive symptoms" (p. 187).

Furthermore, Toepfer et al. (2011) suggests that the value in writing about gratitude versus

simple listing is that writing shapes one's experiences with gratitude in an organized framework

that promotes ownership of one's own well-being and emotions. Grateful reflections can also,

according to Watkins (2014), be a silent process of thinking about benefits and those responsible

for providing them. Citing his previous works, Watkins (2014), found that "simply reflecting on

someone that one is grateful for (for a 5 min period) produced significant increases in positive

affect, and this intervention appeared to have a greater impact than gratitude listing" (p. 228).

Furthermore, the importance of providing different methods for cultivating gratitude is that these

options can provide variety, which prevents habituation and promote optimal application of these interventions.

To expand these ideas, Lyubomirsky and Layous (2013) suggest that there are a few key components to keep in mind when developing positive activities. These include "(1) features of the activity, (2) features of the person, and (3) person-activity fit" (p. 58). The features of the activity are influenced by time, dosage, social support, variety, and triggers, which can be summarized by the idea that selecting frequency and type of activity is an individualized process, and that the individual must decide for him or herself the frequency. One interesting note about the features of the activity is that variety matters. By developing multiple methods of practicing gratitude, the individual can keep their practice new, and they evolve into greater depth and broader applications of gratitude in his or her personal life. Finally, Lyubomirsky and Layous (2013) states that motivation and personal engagement greatly effects the ability to develop and cultivate grateful feelings, "for people to benefit from a positive activity, they have to effortfully engage in it, be motivated to become happier, and believe that their efforts will pay off" (p. 59).

Measuring Gratitude

Currently, there are four scales utilized to measure gratitude (Peterson & Seligman, 2004). For this review I will focus on *The Gratitude Questionnaire (GQ-6)* (McCullough, Emmons, & Tsang, 2002) and *The GRAT (Gratitude, Resentment, Appreciation Test)* (Watkins, Woodward, Stone & Kolts, 2003) because of their influences on current research, and I will begin with the GQ-6 measurement tool. McCullough et al. (2002) explore gratitude as an affective trait and describe a grateful disposition as "a generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (p. 112). To make this definition operational, the

facets of a grateful disposition (i.e., an affective trait) are described as intensity, frequency, span, and density (McCullough et al., 2002). Intensity implies that someone who has a stronger grateful disposition would have more intense feelings of gratitude than someone with a lower disposition (McCullough et al., 2002). Frequency of grateful feelings is increased in a person with a grateful disposition (McCullough, et al., 2002). Span refers to the number of life events or circumstances that a grateful person is thankful for in that moment (McCullough et al., 2002). Finally, density describes the proportion or number of persons to whom a grateful person feels gratitude toward for the successes in one's life (McCullough et al., 2002).

Therefore, the GQ-6 measures the degree of gratitude participants feel using a 7-point Likert scale. This six-question survey tests the operational definition describing intensity, frequency, span, and density (McCullough et al., 2002). Reliability and validity of the GQ-6 scale was tested in three different studies, which established strong psychometric properties. These studies explored the construct of gratitude against other constructs (i.e., vitality, optimism, hope, materialism, and envy), and against other scales (i.e., Life Satisfaction Scale, The Big Five Self-Rating Scale, and the Values-Orientation Materialism Scale). Study One yielded a Cronbach's alpha of 0.85 and interrater reliability at 0.65 (McCullough, et al., 2002). Study Two yielded a Cronbach's alpha of 0.81 and goodness of fit at 56.83, $p<.001$. Study Three measured gratitude against materialism and envy, with results indicating a negative correlation between gratitude and materialism and envy ($r = -0.39$). Finally, these results indicate that the GQ-6 scale is a valid instrument, and it "includes a robust one-factor structure and high internal consistency" (McCullough et al., 2002, p. 124).

The GRAT (Gratitude, Resentment, Appreciation Test) developed by Watkins et al. (2003), also measures gratitude as an affective trait. However, the distinctive feature of this scale

is the connection between gratitude and subjective well-being. The operational definition of a grateful person is comprised of four distinct characteristics:

- Grateful individuals would not feel deprived in life, but grateful individuals should have a sense of abundance (Watkins et al., 2003).

- Grateful individuals would be appreciative of the contribution of others to their well-being (Watkins et al., 2003).

- Grateful persons would be characterized by the tendency to appreciate simple pleasures (those pleasures in life that are readily available to most people) (Watkins et al., 2003). Individuals who appreciate simple pleasures should be more prone to experience grateful feelings because they will experience subjective benefits more frequently in their daily lives.

- Grateful individuals should acknowledge the importance of experiencing and expressing gratitude (Watkins et al., 2003).

This operational definition led to the creation of a 44-item questionnaire with a Cronbach's alpha of 0.91 (Watkins et al., 2003). The first study showed strong internal consistency. Study Two tested the GRAT questionnaire against nine other scales (Life Satisfaction, Positive and Negative Affectivity Scale, Life Event Questionnaire, Locus of Control, Religious Orientation, Differential Feeling and Mood Status, Depression Inventory, Aggressive Questionnaire, and the Selfism Scale) with findings indicating that gratitude was more strongly related to a positive affect than to a negative affect (Watkins et al., 2003). In Study Three gratitude was measured against mood, and again the GRAT was positively related to measures of subjective well-being, and negatively related to depression (Watkins et al., 2003).

The fundamental question here is how have these instruments influenced our current understanding of gratitude? To begin, research in gratitude has mostly focused on correlational studies aimed at determining relationships between gratitude and other positive personality characteristics. The aforementioned measurement studies are examples of these correlational studies. In addition, Wood, Joseph, and Maltby (2008), provide evidence that gratitude is positively correlated with a full range of positive well-being variables, supporting the position "that gratitude is related to a life that is meaningful, predictive of personal growth, increases personal acceptance, and promotes positive relationships with others" (p. 446). The movement into more experimental designs, especially longitudinal studies, continues to need further development (Peterson & Seligman, 2004). However, the most contributory findings in recent research include the exploration of gratitude in the youth population (Froth et al., 2011), and longitudinal studies exploring the role of gratitude in developing social support, stress, and depression (Wood, Maltby, Gillett, Linley,& Joseph, 2008). Froh et al., (2011) demonstrated that gratitude has a component of development across the life-span. In addition, Wood et al., (2008) concluded that gratitude "seems to directly foster social support, and protects people from stress and depression, which have implications for clinical interventions" (p. 446). The value of this developmental lens on gratitude is its implications for adult development theory by suggesting that there is a wider holistic component of gratitude, which can link the mind, body, and spirit across the lifespan.

Barriers to Gratitude

Before leaving this section, it is prudent to explore alternative views or issues related to gratitude. First, the only alternative to gratitude is ingratitude, "the failure to acknowledge the beneficence of others, which can lead to resentment, hostility, or indifferences" (Emmons &

Shelton, 2002, p. 463). As ingratitude increases, the interconnectedness formed through

gratitude diminishes, leading to a "confining, restricting, and shrinking sense of self [identity]"

(Emmons & Shelton, 2002, p. 463). Second, there are two main issues associated with gratitude:

the first being indebtedness, and the second is the breadth of a grateful disposition. With regard

to indebtedness, the receipt of a gift may be demeaning or strike a sense of obligation in others.

Shelton (2004) explores this notion by stating, "feeling grateful, however, does not require the

perception of indebtedness as much as it requires the awareness of the beneficence of others. As

mentioned, the defining feature of gratitude is giving and receiving a gift. This is fraught with an

assortment of perceptions, psychological states, and conflicting emotions" (p. 272) and it is these

assortments of perceptions that causes pause to examine the meaning behind the gift. Scheible

(2000) suggests that gifts can have a negative connotation, because "gifts bring pride, envy,

hatred, greed, and jealousy. For example, giving a gift for the wrong reasons as in to flaunt one's

wealth" (as cited in Shelton, 2004, p. 272). Shelton (2004) describes this as fabricated gratitude

because this form of gratitude masks the negative feelings associated with the gift.

Furthermore, indebtedness should not be used synonymously with gratitude. In fact,

Watkins, Scheer, Ovnicek, & Knolts (2006) builds on Greenburg's (1980) work, which defines

indebtedness as "a state of obligation to repay another and an emotional state of arousal [or]

discomfort, which alerts the person to opportunities to reduce discomfort" (p. 218). These

thoughts were tested using three different vignettes. Within each vignette, the expectations for

return favors were increased. Findings from the first study showed that as expectations increase,

gratitude decreases and indebtedness increases (Watkins et al., 2006). The informal message

from this study is that "when a favor is given with increasing expectations of return from the

benefactor the beneficiary feels less gratitude but more indebtedness" (Watkins et al., 2006, p.

226). This suggests that gratitude and indebtedness should be seen as distinctively different emotional states (Watkins et al., 2006). In fact, Mathews and Green (2010) presented two studies that test how self-focus is linked to gratitude and indebtedness. Their findings build on the notion of indebtedness by stating that "indebtedness is more likely when one's attention is turned inward, as opposed to outward toward the benefit or external factors" (Mathews & Green, 2010, p. 711). Moreover, "individuals prone to greater public self-consciousness and social anxiety reported more indebtedness" (Mathews & Green, 2010, p. 716). The talking points from these studies suggest that (1) the higher expectations are for a return result in lower levels of gratitude, and that (2) the terms "gratitude" and "indebtedness" should not be used synonymously because they represent distinct emotional states (Watkins et al., 2006).

The second issue related to gratitude is its brevity in all circumstances. Emmons and Shelton (2002) question whether people can be grateful in all circumstances, especially when life's circumstances are unpleasant. Therefore, can these negative circumstances generate gratitude? One possible explanation for this is having an attitude of gratitude, which can transform negative life events into opportunities for growth (Emmons & Shelton, 2002). Growth occurs when the individual is thankful for the skills obtained from handling the situation (Emmons &Shelton, 2002). In addition, Wood et al. (2010) states that "if gratitude is the key form of post-traumatic growth that people experience, this may explain the relationship between gratitude and positive daily living" (p. 894-895). For example, consider the accomplishment of an academic degree. The path to accomplishing this goal, like life, is filled with moments of uncertainty and struggle, but ultimately there is a process of growth. What gratitude adds to life, or to the example of accomplishment, is that an attitude of gratitude has a profound ability to

view each struggle or challenge as a learning opportunity, or a chance to grow from those experiences.

Readiness for Self-Directed Learning

Readiness for self-directed learning in nursing education is a focus on preparing nursing students for the intensity and complexity of not only the demanding nursing curriculum, but it is also a focus on developing the needed self-directed learning skills for adapting to an ever-changing work environment (O'Shea, 2003). The notion of individual "readiness" for self-directed learning in nursing has been defined as "the degree [to which] the individual possess the attitudes, abilities and personal characteristics necessary for self-directed learning" (Wiley, 1983, p. 182). This ability to adapt is influenced by three essential characteristics of readiness: self-management, desire for learning, and self-control (Fisher, King, & Tague, 2001). Finally, according to El-Gilany and Abusaad (20 13) "understanding and identifying how students learn, and their readiness to learn not only increases nursing students' confidence in their own ability, but it also improves their capacity to learn in novel situations" (p. 1040).

This exploration into what is readiness for self-directed learning begins with an explanation of the assumptions about what is adult learning and who are adult learners. These ideas have been an ongoing discussion among educators and researchers for the past 40 years (Merriam, Caffarella, & Baumgartner, 2007), and from this there has been a surge in conceptual and empirical knowledge to answer these questions. Drawing from several critiques of the literature, common themes include: establishing the importance of andragogy, defining the assumptions about adult learners, and establishing the best ways to assist adults in their learning goals (Merriam, 2001). In establishing the importance of andragogy, "the art and science of helping adults learn" (Merriam, 2001, p. 5), this definition has provided a common goal for adult

educators, but according to Merriam et al. (2007) "no single theory of adult learning has emerged to unify the field. Rather, there are a number of theories, models, and frameworks, each of which attempts to capture some aspect of adult learning" (p. 103). Furthermore, it is suggested that, by viewing andragogy as a model of assumptions versus a theory, andragogy can be seen as a window to "which adult educators take their first look into the world of adult education and to serve as a framework for emerging theory" (Knowles, 1989 as cited by Merriam, 2001, p. 5). Finally, these basic assumptions about adult learners are summarized by Merriam (2001), and include, "(1) adults have an independent self-concept and he or she can direct his or her own learning, (2) have accumulated a reservoir of life experiences, which is a rich source for learning, (3) have learning needs related to changing life roles, (4) adults are problem-centered and interested in immediate application of knowledge, and finally, (5) adults are intrinsically motivated" (p. 5).

Continuing with this deductive approach to understanding readiness, one must also have an understanding of the broader concept of self-directed learning, which has been defined as a "process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material sources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (Knowles, 1975, p. 18). Again, "like most foundational concepts, 'self-directed learning' is articulated in a way which allows seemingly limitless interpretations of what it is and how it should be applied" (Tennant, 2006, p. 7). Therefore, for a more direct definition of self-directed learning, Brockett and Hiemstra (1991) state that "self-direction in learning refers to both the external characteristics of an instructional process and the internal characteristics of the learner where the individual assumes primary responsibility for a learning experience" (p. 24).

The idea of primary responsibility implies that the learner is able to take control of his or her own learning, and that he or she can take ownership of not only current learning goals, but also their future goals. Lastly, this idea of personal responsibility for one's own learning helps to frame the concept of readiness in nursing education.

Within nursing education, readiness of self-directed learning "has many benefits including increased confidence, autonomy, motivation, and preparation for life-long learning" (El-Gilany & Abusaad, 2013, p. 1040). Levett-Jones (2005), suggests that "in a constant changing environment, self-directed learning is an essential vehicle for enabling nursing students to develop independent learning skills, and a sense of accountability, responsibility and assertiveness" (p. 365), which are important qualities needed for a successful career. Furthermore, Patterson, Crooks, and Lunyk-Child (2002) describe the self-directed nursing student as being able to evaluate his or her "attitudes, assumptions, values, and beliefs on thinking, learning, and practice, they are able to self-evaluate, they respond to challenges with confidence, and they request feedback" (p. 28). Finally, as stated previously, the operational definition of readiness for self-directed learning in nursing education is acquiring three essential characteristics: self-management, desire for learning, and self-control (Fisher, King, & Tague, 2001).

Self-Management

Self- management "indicates an aspect of external task control specific to the management of learning activities, which are intimately linked with goal setting and metacognitive strategies. Self-management is concerned with task control issues" (Garrison, 1997, p. 22). For example, self-managing people "control their first impulses for action and delay premature conclusions. They generally approach tasks by gathering relevant data that will

illuminate the problem" (Costa & Kallick, 2004, p. 51). This implies that a person with high levels of self-management would have flexibility in his or her thinking to meet goals, and that they can draw on past life experiences to formulate alternative solutions to specific learning needs (Costa & Kallick, 2004). Furthermore, high levels of self-management would have a sense of openness to learning, and openness to learning has been described as an essential attribute of self-directed learning (Oddi, 1986). Finally, the operational definition of self-management include such skills as "being self-disciplined, having good management skills, setting time aside for studying, and being confident in one's ability to seek out information" (Fisher & King, 2010, p. 45).

Desire for Learning

Desire for learning is a personal characteristic of the learner, and it can be closely associated with intrinsic motivation. Intrinsically motivated behaviors "are [behaviors] engaged in for their own sake–for the pleasure and satisfaction derived from performance" (Deci, Vallard, Pelletier, & Ryan, 1991, p. 328). Those who have a high desire to learn, or "intrinsic motivators might be learning for the love of intellectual challenge, or desire to achieve mastery of a topic, or practice for the satisfaction it brings" (Merriam & Bierema, 2014, p.147). Intrinsic motivation can also be described as a proactive drive, meaning "a focus on the learner's ability to initiate and persist in learning without immediate or obvious external reinforcement" (Oddi, 1987, p. 98), which is a salient characteristic of self-directed learning– expressed as a positive attitude towards engaging in learning (Oddi, 1987). Therefore, According to Fisher and King (2010), those who have high levels of desire to learn would agree with such statements as "I want to learn new information, I enjoy learning new information, I enjoy a challenge, and I need to know why" (p. 46).

Self-Control

Self-control is closely associated with learner control, self-monitoring, and self-efficacy. Learner control refers to "reflecting on personal learning needs, formulating learning goals (in conjunction with expert faculty as appropriate), and choosing and implementing preferred learning styles, strategies, and activities" (Bulik, 2009, p. 52). Second, self-monitoring is "the process whereby the learner takes responsibility for the construction of personal meaning" (Garrison, 1997, p. 24). For example, self-monitoring people "think about their own thinking, behaviors, biases, and beliefs as well as about the effects that such processes and states of mind have on others and on the environment" (Costa & Kallick, 2004, p.52). In reference to self-efficacy, self-efficacy is defined as "one's confidence that he or she has the ability to complete a specific task successfully, and this confidence relates to performance and perseverance in a variety of endeavors" (Bandura, 1994, p. 72). Finally, self-control is operationalized to include the following statements: "I am responsible for my own decisions/actions, I have high personal standards, I prefer to set my own learning goals, and I have high beliefs in my abilities" (Fisher & King, 2010, p. 47).

Measuring Readiness for Self-Directed Learning in Nursing Education

Currently, there are four measurement tools utilized within nursing education to measure readiness for self-directed learning. These include (1) Self-Directed Learning Instrument [SDLI] (Cheng, Kuo, Lin, & Lee-Hsieh, 2010), (2) Self-Rating Scale of Self-Directed Learning [SRSSDL] (Williamson, 2007), (3) Self-Directed Learning Readiness Scale [SDLRS] (Guglielmino, 1977), and (4) Self-Directed Learning Readiness Scale in Nursing Education [SDLRS-NE] (Fisher, King, & Tague, 2001). In the sections to follow, each measurement tool will be reviewed to describe their conceptual and empirical development.

The Self-Directed Learning Instrument [SDLI]

This 20-item measurement tool measures four identified domains of self-directed learning, which have been identified as learning motivation, planning and implementation, self-monitoring, and interpersonal communication skills (Cheng et al., 2010). In defining these domains, learning motivation is defined as "the inner drive of the learner as well as external stimuli that drive the desire to learn and to take responsibility for one's learning" (Cheng et al., 2010, p. 1155). With regard to planning and implementation, Cheng et al. (2010) define this as "the ability to independently set learning goals" (p. 1155). Next, self-monitoring is "the ability to evaluate one's learning process and outcomes, and to make progress" (p. 1155). In the fourth domain, interpersonal communication, this domain was included based on the American Association of Colleges of Nursing's (AACN) recommendations that effective communication skills are essential competencies for nursing students. The operational definition of interpersonal communication within this measurement tool is having the ability to "interact with others to promote their own learning" (p.1155). The conceptualization of these domains of self-directed learning was accomplished through an extensive literature review and a critique of five existing self-directed learning tools obtained from both nursing and adult education literature. This concluded phase one of development by creating a measurement tool that combines current literature with items from the five existing self-directed learning tools.

In phase two of instrument development, Cheng et al. (2010), like others, conducted a two-round Delphi study with "6 experts in adult/higher education and 10 experts in nursing education" (p. 1154), having experts evaluate self-directed learning items on a 5-point Likert scale. Throughout this two-round evaluation process, the scale was reduced from 55-items to its final version of 20-items describing the four domains of self-directed learning. Finally, for

clarity, a Delphi technique "is a method for soliciting the input of content and methodological experts" (Colton & Covert, 2007, p. 114), and the advantage of this two-round process is to obtain consensus or agreement on which items best represents the construct of interest.

Model testing using confirmatory factor analysis (CFA) occurred during phase three of development. The purpose of the CFA is to determine or discover underlying structures. Stated another way, this would mean that through the use of correlational statistics, the researchers can determine how likely the line items are representative of the factors selected, which in this case these factors are the four domains of self-directed learning (Colton & Covert, 2007). After testing (n=1072 nursing students), the final 20-item instrument was shown to be a good fit, as evident by p=.00, goodness-of-fit indices at .94, and adjusted goodness-of-fit at .92 (Cheng et al., 2010). Finally, the significance of this phase of development is to ensure construct validity, meaning that based on Cheng's et al. (2010) CFA results, the line items are representative of the four domains of self-directed learning.

In the last phase, phase four, internal consistency and reliability was determined using a Cronbach's coefficient alpha (*a*), with "total item pool (n=1072) at .916, and for the four domains results include .801 (Learning Motivation), .861 (Planning and Implementation), .785 (Self-Monitoring), and .765 (Interpersonal Communication)" (Cheng et al., 2010, p. 1155). These results from the Cronbach's alpha demonstrate good internal consistency and reliability, based on the knowledge that an alpha result equal to or greater than .70 are measuring the construct being measured (Colton & Covert, 2007). Based on these results of construct validity and reliability, its large sample size, and the authors' clarity in the processes for developing the measurement tool, the SDLI appears to be a valid instrument for measuring their identified four-domains of self-directed learning. However, to my knowledge, the SDLI has not been tested

further, and more testing would only strengthen the conclusion that the SDLI is in fact a valid and reliable instrument.

The Self-Rating Scale of Self-Directed Learning [SRSSDL]

As with the SDLI, the SRSSDL seeks to measure the process of self-directed learning. This 60-item instrument was developed to measure five factors of self-directed learning. These factors include awareness, learning strategies, learning activities, evaluation, and interpersonal skills. In operationalizing these factors, Williamson (2007) states the following definitions: awareness–relates to "understanding the items that contribute to becoming self-directed" (p. 70); learning strategies–are items "explaining the various strategies that self-directed learners should adopt in order to become self-directed" (pp. 70-71); learning activities–specify "the requisite learning activities that students should actively engage in, in order to become self-directed" (p. 71), evaluation–are "specific attributes for monitoring their learning processes" (p. 71), and finally, interpersonal skills–are items related to the "learners' skills in interpersonal relationships" (p. 71).

Once operational definitions were determined and line items created, Williamson (2007) also conducted a Delphi study to establish consensus from a panel of 15 experts. Unlike the SDLI, specific criteria for involvement in the Delphi study was provided by Williamson (2007), which experts in this study were required to have a postgraduate degree and at least three years of teaching experience. Also, Williamson (2007), expanded the expert panel to include practice experts (six doctors and three practice educationalists). Finally, consensus was defined as 80 percent agreement.

Although part one of this development of a measurement tool was clearly articulated, there was limited discussion of the methods used to determine the construct validity and

reliability of the SRSSDL. For example, the results of Williamson's (2007) confirmatory factor analysis are not reported, and according to Cadorin, Bortoluzzi, and Palese (2013), "factor analysis was not performed on [this] original scale" (p. 1512). With regard to internal consistency, individual alpha results include "awareness a= .79, learning strategies a= .73, learning activities a= .71, evaluation a= .71, and interpersonal skills a= 0.71" (p. 75). However, the sample size used to measure the SRSSDL was comprised of only "15 first- and 15 final-year undergraduate nursing students, ages 20-25" (P. 72). A small sample size may produce inadequate results if measures are not taken to account for small samples. In fact, according to Colton & Covert (2007), selecting a sample size can be based on resources and determining the margin of error one is willing to accept. Second, a confidence level should be determined. "Typically, confidence levels of 90, 95, or 99 percent are selected" (Colton & Covert, 2007, p. 323). These suggested methods for selecting a sample were not mentioned by the author. Therefore, with limited descriptions of methods used for establishing the validity and reliability of the SRSSDL, more testing is needed, and to my knowledge, only the translation of the SRSSDL tool into an Italian version has expanded the significance of this measurement tool within the nursing literature (Cadorin, Bortoluzzi, & Palese, 2013).

The results of the Cardorin et al. (2013) study are mixed. The benefits gained from this study include: (1) test-retest reliability r= 0.73 and (2) item-to-total a= 0.94. However, the factor analysis of the Italian version of the SRSSDL identifies different factors than the original SRSSDL by Williamson (2007). For example, in this particular study eight factors were identified, which adds motivation, learning methods, and constructing knowledge to the original five factors identified by Williamson (2007). This may provide clarity to the measurement tool, but again more testing and consistency is needed before validity and reliability can be confirmed.

Finally, Cardorin et al. (2013) concluded that the original factors measured with the SRSSDL are now measured within the SDLI created by Cheng et al. (2010).

The Self-Directed Learning Readiness Scale [SDLRS]

The SDLRS originates within the adult education literature, and it has had a significant impact in many areas of healthcare. However, for this review I could only identify seven published articles that specifically utilize the SDLRS measurement tool within nursing education, and these dates range from 1983 to 2011. In describing the development process of the SDLRS, three main methods were utilized by the author for establishing validity: a literature review, a Delphi study seeking consensus from experts, and a principle component analysis. From Guglielmino's (1977) dissertation, eight factors of self-directed learning were identified; these include "(1) openness to learning opportunities, (2) self-concept as an effective learner, (3) initiative and independence in learning, (4) informed acceptance of responsibility for one's own learning, (5) love of learning, (6) creativity, (7) positive orientation to the future, and (8) ability to use study and problem skills" (pp.62-69). In determining reliability, Guglielmino reports a total item (58-item) Cronbach coefficient alpha at .87 (n=307) (1977). Finally, from this development of the SDLRS, Guglielmino (1977) concludes that the desirable or necessary characteristics of a self-directed learner are that:

> A highly self-directed learner is one who exhibits initiative, independence, and persistence in learning; one who accepts responsibility for his or her own learning and views problems as challenges, not obstacles; one who is capable of self-discipline and has a high degree of curiosity; one who has a strong desire to learn or change and is self-confident; one who is able to use basic study skills, organize his or her time and set an

appropriate pace for learning, and to develop a plan for completing work; one who enjoys

learning and has a tendency to be goal-oriented. (p. 73)

Across the seven identified articles within nursing education, the following table

(see Table 2.1 in Appendix G) provides a synthesis of the methods used for establishing

reliability, validity, and their overall results. From this synthesis there are mixed results,

showing the validity and reliability of the SDLRS as it relates to predicting learning outcomes,

identifying student characteristics, and connecting learning styles to readiness for self-directed

learning. Furthermore, only two out of the seven identified articles completed an independent

Cronbach alpha test to measure internal consistency. Furthermore, Kim & Park's (2011) study

utilized the Korean-translated version of the SDLRS, but included only 16-items of the original

58-items, and identified only seven factors of self-direction where eight factors were identified

within the original version if the SDLRS. Collectively, this may hinder the ability to measure the

SDLRS reliably across a variety of samples. In fact, according to Tavakol & Dennick (2011),

Cronbach's alpha "is an important concept in the evaluation of assessments and questionnaires.

It is mandatory that assessors and researchers should estimate this quantity to add validity and

accuracy to the interpretation of their data" (p. 54). In search for other methods for establishing

reliability across the seven studies, correlational testing and comparing of group mean scores

with previously established studies were used to support the reliability of the SDLRS.

In evaluating the impact these studies have had on the current understanding of readiness

for self-directed learning, it is noted that a consistent finding is that self-direction is a

maturational process, meaning that as nursing students' progress throughout the nursing

program, their level of self-direction increases. Also, there is some insight into how different

learning styles influence one's readiness for self-directed learning. For example, Linares (1999)

found that the learning style "convergers" have high level of self-directed learning readiness. A "converger" learning style is described as a learner whose "strength lies in problem solving, decision-making, and practical application of ideas" (Linares, 1999, p. 412). Finally, the learning environment created by faculty influences readiness for self-direction based on how structured or unstructured that environment is (Wiley, 1983).

The Self-Directed Learning Readiness Scale in Nursing [SDLRS-NE]

The SDLRS-NE was developed based on a need to resolve the issues associated with other self-directed measurement tools. In referencing the SDLRS developed by Guglielmino (1977), the authors state that "issues have been raised concerning cost, validity and use, and the development of a new scale allows for the problems associated with the use of other scales to be addressed" (Fisher et al., 2001, p.518).

The process of developing the SDLRS-NE measurement tool occurred in 2 stages. "Stage 1 used a modified reactive Delphi technique to develop and determine content validity, and Stage 2 incorporated distribution of the scale to a convenience sample" (Fisher et al., 2001, p.518). The final result is a 40-item measurement tool testing the operational definition of readiness by measuring self-management, desire for learning, and self-control. This measurement is completed by having participants rate on a five-point Likert scale how well they agree or disagree with each statement. Participants can chose from five responses (never, seldom, sometimes, often, and always). For clarity, Kocaman et al. (2009) provides a clearer explanation of Fisher et al. (2001) instructions for interpreting results, and states that "the minimum score for the 40-item score is 40 with a maximum score of 200, and high scores (>150) represent high levels of SDLR" (p. 288).

The validity and reliability on initial testing in a pilot study (n=201) resulted in a

Crobach's alpha at "0.924 (total item pool, 40 items), 0.857 (self-management, 13 items), 0.847

(desire to learn, 12 items), and 0.830 (self-control, 15 items)" (Fisher et al., 2001, p. 520).

Adding to validity and reliability, the developers of the SDLRS-NE revisited its validity by

conducting a confirmatory factor analysis (Fisher & King, 2010). The results from this analysis

suggested that 11 items did show some redundancy; however, due to the small sample size, it is

the recommendation that "the 40 item SDLRS-NE should be used until further research

examines the relationships between variables (items) across factors in different samples" (Fisher

& King, 2010, p. 48).

Within the nursing literature, only four published articles specifically utilizing the

SDLRS-NE (see Table 2.2 in Appendix G) were found, and these dates range from 2007-2013.

In the table below, validity, reliability, and significant findings are reported to support the overall

usefulness of the SDLRS-NE measurement tool.

In synthesizing these results, it is important to note that in all four studies include within

this review, each assessed internal consistency within their own study, which strengthens the

argument that the SDLRS-NE is a reliable measure of readiness for self-directed learning across

a variety of settings. Second, in all four studies the original 40-item SDLRS-NE maintained its

original form, measuring the same three factors (self-management, desire for learning, and self-

control). Finally, as with previous studies examining readiness for self-directed learning within

nursing, results show that the development of self-directedness is a maturational process.

Facilitating Self-Directed Learning

Due to a common understanding that self-directed learning can be viewed as both a

process and a personal characteristic of the learner, facilitation of self-direction can then be

explained as either interventions for promoting an environment supportive of self-direction, or as interventions for developing needed self-directed learning skills within the learner. With this in mind, consistent themes within the nursing literature related to facilitating self-directed learning within student nurses include: creating a supportive environment (Timmins, 2008); providing clear instructions and objectives (O'Shea, 2003; Iwasiw, 1987); consistent use and language defining self-directed learning among faculty (Smedley, 2007; Luynk-Child et al., 2001); a need for ongoing faculty development to improve facilitation skills (Levett-Jones, 2005); and finally, the importance of understanding the maturational process of self-direction (Patterson, Crook, & Luynk-Child, 2002; Luynk-Child et al., 2001). For example, in discussing the role of nursing instructors in self-directed learning, O'Shea (2003) argues that students should receive a cognitive understanding of the self-directed learning process before they can be expected to engage in it" (p. 67). The identified instructor competencies include "an ability to create a learning environment that is conducive to learning, collaborative, supportive, and an ability to assist learners in setting their own goals by translating learning needs into clear, realistic and achievable" (Levett-Jones, 2005, p. 366). Finally, Smedley (2007), highlights the "need for curriculum developers to include strategies in the beginning level degree subjects to cultivate self-directed learning skills for nurses" (p. 373), implying that self-directed learning is a maturational process.

In reviewing the learner characteristics affecting self-directedness, examples can be found in describing what nursing students need to develop in order to become increasingly self-directed. First, Patterson, Crook, & Luynk-Child (2002), places emphasis on assessing one's own learning needs, stating that students must "become proficient in assessing knowledge gaps, create communication skills, learn to tolerate ambiguity, and explore a variety of learning styles

and approaches to learning" (p. 26). Second, from a clinical perspective, Kim and Park's (2011) found that "there are needs of high-self-esteem and belongingness in order to improve self-directed learning" (p. 48). Within both of these examples there is an implied process of development, and that the environment can strongly influence how one develops his or her individualized learning characteristics. Therefore, the conclusion to draw from these examples is that a balance is needed to facilitate self-directed learning, both the student and nursing instructor must have an increased awareness of learning needs, and the appropriate evaluation skills for determining outcomes.

Barriers to Self-Directed Learning

From Guglielmino et al. (2005) qualitative study exploring the common barriers, interrupters, and restarting factors for adults involved in self-directed learning projects, the major barriers to self-direction include "time, lack of accessibility or adequacy of human or material resources, aspects of the learners' interactions with other people, personal limitations, issues related to the use of formal learning activities, technical difficulties, and loss of interest" (p. 79). Barriers to time spoke to the many demands experienced by adults and the struggles of prioritizing their time when higher-priority events occurred (e.g., sick child or work demands). Lack of accessibility included a lack of access to experts, learning resources, and resources to technology contributed to the theme of "lack of accessibility." The two most commonly cited personal barriers include (1) a fear of failure and (2) a lack of confidence in one's general ability (Guglielmino et al., 2005). Finally, a loss of interest in a self-directed learning project was associated with indecisiveness and the difficulty to persist when one's progress seemed unclear.

On another level, interrupters to self-direction were defined as "any circumstance or condition which made a learning project difficult to continue, something that the learner had to

surmount in order to persist in the learning initiative" (Guglielmino et al., 2005, p. 74). These

interrupters in self-directed learning provide significance because of the potential connection

between emotion and self-directed learning. For example, frustration interrupts self-directed

learning when the learner is unable to obtain or access the needed information to resolve

problems in his or her learning project (Guglielmino et al., 2005), and it can be described as

"hitting a wall" (p. 83). As this frustration rises, motivation declines, possibly leading to a

change in goals or priorities. In a sense, this example demonstrates the mediating effect

emotions have on one's ability to be self-directed and one's readiness for self-directed learning.

In balancing this notion of an emotional connection between the learner's emotions and self-

directed learning is to include a sense of completion or satisfaction, which occurs when the

learner has "met [his or her] immediate needs or goals" (Guglielmino et al., 2005, p. 84). This

implies that feeling a sense of accomplishment can positively interrupt self-directed learning

resulting in "persistence and a conscious redirection of a learning project" (Guglielmino et al.,

2005, p. 90). Finally, other interrupters include unexpected life events, physical limitations, and

changes in goals or priorities (Guglielmino et al., 2005).

To identify other barriers affecting self-directed learning, it is helpful to look at the

barriers associated with the process of learning. According to Robetham (1995), barriers to self-

directed learning include "wrong choice of learning approach, poor motivation, lack of

confidence, lack of flexibility, lack of direction and guidance, poor course construction, previous

bad learning experiences, and alternative motives for attending the course" (p. 5). Wilcox

(1996), adds to this discussion by exploring barriers related to instructor beliefs about self-

directed learning, which become a barrier when misconceptions about self-directed learning are

held by the instructor. From her study, Wilcox (1996), identified six specific barriers to self-

directed learning. First, "instructors were simply unaware of the ways which their practices did not support their beliefs" (p. 172). Second, "instructors lacked the instructional skills needed to implement their beliefs effectively" (p.172). Third, "instructors adapted instructional practices based on student and institutional characteristics" (p. 172). Fourth, "instructors had different conceptions of self-directed learning" (p.172). The fifth barrier was identified as a lack of commitment; "these instructors expected self-direction from the student, but retained their right to hold finial decision-making power" (p.172). Finally, the sixth barrier to self-directed learning were the limits placed on the instructor by the university setting.

Within the context of nursing education, the universal use of self-directed learning in nursing education is a concern. For example, Levett-Jones (2005) suggests that self-direction in general does not address the constraints of nursing education. These constraints include "restrictions imposed by professional, curricular, legal and institutional requirements, educational regulations, time constraints, and the need to ensure that specific content is covered and outcomes achieved require that learning arrangements must be sufficiently formalized" (p. 366). In addition, Regan (2003) notes that motivation and learning preferences highly influence self-directed learning within the context of nursing education. Regan's (2003) study found that good lectures can motivate students to be more self-directed, and that clear instructions and organization on behalf of the instructor supported the student's development of self-directed learning skills. In essence, these findings imply that within nursing education there is a need for balance, structure, organization, and what Iwasiw (1987) terms a "freedom within boundaries" (p.224).

Gratitude and Connections to Readiness for Self-Directed Learning

To bring closure to this literature review, this final section will examine the connections gratitude may have to readiness for self-direction. Taking a humanistic perspective, I propose that gratitude may be an important resource for self-directed learners. This perspective assumes that "humans have the potential for growth, self-concept is an important part of [that] growth, individuals have an urge toward self-actualization, and individuals have a responsibility to self and others" (Cranton &Taylor, 2012, p. 6). With this in mind, I will use Hiemstra and Brockett's (2012) "Person Process Context [PPC] Model" of self-directed learning to support these connections between gratitude. Framing this within Himestra and Brockett's (2012) PPC Model helps to demonstrate how gratitude could support the person, the process, and the context in which self-directed learning occurs.

The three elements of The PPC Model can be defined in the following ways. With regard to the *person*, Hiemstra and Brockett (2012) state that the *person* "includes characteristics of the individual, such as creativity, critical reflection, enthusiasm, life experience, life satisfaction, motivation, previous education, resilience, and self-concept" (p.158). The *process* "involves the teaching-learning transaction" (p.158). This process includes the revised understanding of personal responsibility, which, according to Merriam and Bierema (2014), is the idea that the "learner takes the primary responsibility for planning, implementing, and evaluating learning" (p. 67).   In the PPC Model, personal responsibility is refocused on individual choice of what and how to learn, versus the contention that the learner has a responsibility to learn. Therefore, this becomes a more participatory process. In the third element of the PPC Model, the *context* has been defined as a broad encompassing notion of culture and social environments that includes the multiple factors influencing the construction of one's worldview (Hiemstra & Brockett,

2012). This model provides a useful framework for conceptualizing about how gratitude may connect with self-directed learning, because, like gratitude, this model implies that there are interrelated relationships among attributes.

Person

The benefits of enhancing gratitude within the self-directed learner may be in the way that gratitude influences life satisfaction, intrinsic motivation, resilience, and one's self-concept. For example, gratitude has been positively correlated with "traits associated with positive emotional functioning (e.g., more extroverted, agreeable, openness, and conscientiousness; and less neurotic), lower dysfunction (e.g., depression, anxiety), and positive social relationships" (Wood, Froh, & Geraghty, 2010, p. 893). In addition, Wood, Joseph, and Maltby (2008) provide evidence that gratitude is positively correlated with a full range of positive well-being variables, thus supporting the position "that gratitude is related to a life that is meaningful, predictive of personal growth, increases personal acceptance, and promotes positive relationships with others" (p. 446). One useful way to frame these positive correlations is to view gratitude as a mechanism for amplifying the positive aspects in one's life (Watkins, 2014).

Using Watkins's (2014) amplification theory of gratitude, gratitude can benefit the self-directed learner in four distinct ways. "First, gratitude can improve one's experience. Second, gratitude amplifies the positive things in one's social environment. Third, gratitude may encourage self-acceptance through promoting positive affectivity" (Watkins, 2014, p. 251). Furthermore, according to Watkins (2014), "when one is able to see and be grateful for the good that comes from bad events they are more able to deal effectively with that event, and this might be another reason why grateful people tend to be happy people" (p. 251). This notion is echoed by Wood et al. (2008) who suggest that, "people who feel a lot of gratitude in life have specific

appraisal tendencies that lead them to characteristically appraise the benefits of situations" (p. 282). Therefore, gratitude as a personal resource aids the self-directed learner by developing the essential adaptive skills for not only viewing the learning experience as positive but for having the ability to reframe setbacks in a more positive light.

Process

The process of self-directed learning is said to be influenced by the "opportunities learners find in their own environments, past or new knowledge, or chance occurrences" (Merriam & Bierema, 2014). Within the PPC Model, the *process* not only includes these elements, but more specifically, it provides some overlapping of personal learning styles with the learning environment. Due to this overlap one could look at how gratitude influences the process of learning. This aligns with the notion that self-directed learning is not always a linear process, but that self-directed learning should be viewed as an individualized process of learning through acquiring and developing new skills or knowledge (Caffarella, 1993).

Connecting this notion with gratitude can be done by exploring Fredrickson's (2004) Broaden-and-Build Theory of personal and social resources. The Broaden-and-Build Theory ties the humanistic goals of self-directed learning with positive emotions (i.e., gratitude) by assuming that by experiencing gratitude "individuals grow and develop, and individuals can transform themselves, becoming more creative, knowledgeable, resilient, socially integrated, and healthy (Fredrickson, 2004, p. 153). These resources become important during times of stagnation or struggles with self-directed learning projects. In fact, according to Joseph, Linley, and Harris (2005) gratitude may help in the process of coping through positive adaptation, enhanced personal strength, expanded social support, and enhanced spirituality. The significance of this

connection is that "the actions and attitudes involved with the allocation of resources can profoundly affect the success of the learning event" (Carr, 2009, p. 100).

In postulating as to how gratitude may ameliorate the stressors of learning is to explore how resources are accumulated. First, Wood, et al. (2007) suggest that social support plays a crucial role in coping with adversity, meaning that those who have a greater disposition toward gratitude were more likely to seek social support during times of struggle. Second, the benefits of using positive emotions (i.e., gratitude) during stressful events comes from Lazarus (2000), who states that the "most important premise [of positive affect] is that it views stress, coping, and emotion as dependent on the relational meaning that an individual constructs from the person-environment relationships" (p. 670). Therefore, either through positive reframing of events or developing a network of social support, it appears that gratitude may not only be important when everything is going well, but just as important during times of adversity.

Context

The importance of gratitude within the context of self-directed learning is its influence on relationship building. According to Watkins (2014) "gratitude is important for enhancing trust in the beginning stages of a relationship" (p. 143), and as this positive feedback continues, gratitude is thought to maintain relationships. Furthermore, gratitude is thought to act as a moral barometer (McCullough & Tsang, 2004) to motivate and reinforce prosocial behaviors. By prosocial behavior, I am referring to empathy, civility, mutual respect, and trust that results in admiration for one another (Buck, 2004). As this moral barometer grows in sensitivity, a reciprocal relationship develops between motivating and reinforcing prosocial behaviors between the self and others. Although more empirical testing is needed to test these relationship in everyday life, Watkins (2014) summarizes this premise, nicely, by stating that "gratitude

amplifies the good one sees in others, gratitude amplifies one's motivation to do good to others, and the expressions of gratitude amplify the good in others" (p. 154).

Finally, in addressing the practicality of gratitude within the classroom setting, gratitude can build trust between the learner and facilitator. Gratitude creates a prosocial environment that is supportive, empathetic, and respectful. The type of gratitude described here is not the simple "thank you" statements made in passing, but it is having a deep appreciation for others. For example, being grateful for the learning experience itself and developing a desire to pass on these positive emotions to others builds relationships. Also, Emmons (2013) suggests that increases in gratitude may decrease the sense of entitlement that can be expressed by not only students but also by facilitators. This implies that by implementing the activities that promote gratitude, participants in the learning environment can develop an outward focus, which increases one's awareness of the benefits received from others. Finally, the long term benefits may be in cultivating grateful thinking–an attitude of gratitude.

Drawing from a variety of sources, spanning over 30 years, much is known about the concepts of gratitude and readiness for self-directed learning, but little testing has been conducted on how these concepts can be mutually supportive. The importance of developing self-directed learning skills was best articulated by Levett-Jones (2005) who states, "in a constantly changing environment self-directed learning is an essential vehicle for enabling nursing students to develop independent learning skills, and a sense of accountability, responsibility and assertiveness, which are essential attributes throughout a nurse's career" (p. 365). And despite this focus, more is needed in finding new ways for supporting the development of these essential skills–one that takes a more holistic approach. Therefore, it is proposed that gratitude can help to support not only the experiences of learning, but it can

improve the culture in which learning occurs. Throughout this review, gratitude has been shown to be an important concept for promoting well-being, and in the chapters to follow, the purpose will be to explore the relationships between gratitude and readiness for self-direction. From this, new hypotheses can be developed to advance the science of not only gratitude but also self-directed learning. Lastly, in the next chapter the research questions, design, and plans for data collection will be discussed.

Chapter Three

Method

Gratitude as a researchable topic has been shown to be an effective measure for subjective well-being and a valuable character strength for enhancing one's ability to flourish (Peterson & Seligman, 2004; Emmons, 2012; Watkins, 2014). In relation to readiness for self-directed learning, there is a gap in knowledge about how certain positive emotions are connected to one's readiness for self-directed learning (Bruin, 2007). Therefore, as stated previously, the purpose of this study is to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. Within this chapter, I will discuss the research design, study population, instrumentation, procedure, and data analysis.

Research Design

A correlational design was selected to determine the extent to which a relationship exist between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. From the literature reviewed in the previous chapter, it is suggested that this relationship may be stronger in senior level nursing students versus entering junior nursing students; the relationship may increase with age. Therefore, the purpose of this design is to explore the relationships between gratitude and readiness for self-directed learning among undergraduate nursing students by age and class rank. The intent is to gather data for generating new hypotheses that can be tested more empirically in the future (Bordens & Abbott, 2011). The benefits of a correlational study include the ability to test variables as they naturally occur in real-life situations and for testing predictions about particular relationships (Bordens & Abbott, 2011; Munro, 2005). To accomplish this, the measurement of these relationships will

utilize both descriptive and inferential statistics, which will be addressed later within the data analysis section.

Study Population

Participants were full-time nursing students enrolled in a four-year baccalaureate nursing program situated within a private, faith-based college in the Southeast United States. As this is a population study, my aim was to obtain as many participants as possible to ensure adequate representation, which would allow for a more focused understanding of the relationships between gratitude and readiness for self-directed learning within the context of nursing education. The selection of this population was based on two considerations: first, the experiences of completing a nursing degree has been shown to be a unique experience filled with high-stakes testing, stress, and anxiety (Lo, 2002), which creates a rich environment for exploring emotions. Second, nursing as a field of research has yet to explore the relationship between gratitude and readiness for self-directed learning. Participant eligibility criteria included: participants… (a) must be considered full-time (at least 12 credit hours per semester) in the four-year baccalaureate nursing program; (b) must be able to read and interpret English; (c) must voluntarily complete questionnaires; and (d) must be 18 years or older and sign an informed consent form.

In describing the setting for this study, this nursing program is part of a private, coed college founded in 1857 with Methodist affiliation. According to the U.S. News College Compass there are "approximately 1,106 students enrolled, 36% are male and 64% female, and tuition averages $21,800/ per year" (http://colleges.usnews.rangingsandreviews.com). For specifics about the nursing program, nursing courses begin during the participant's junior year after he or she has been accepted into the nursing program. The annual enrollment is 80 students

each Fall Semester, and acceptance is based on: GPA; SAT scores; personal narratives stating reasons for becoming a professional nurse; letters of recommendation; and the completion of general education courses (e.g., microbiology, chemistry, and algebra).

Other demographics known about this study population are that current survey results from the National League for Nursing [NLN] (2011-2013) report baccalaureate student demographics to be 86% female, 67% Caucasian, and 16% of the students enrolled in a baccalaureate state they are over the age of 30. As for diversity in nursing, the American Association of Colleges of Nursing [AACN] (2011) report: 72% white, 10.3% black, 7% Hispanic or Latino, 8.8% Asian, 0.5% American Indian, and finally, 1.4% as two or more races– equaling a total of 28.0% of minority nursing students.

Instrumentation

A demographic questionnaire and two previously tested instruments (1) The Gratitude Questionnaire –Six Item Form [GQ-6] (McCullough et al., 2002), and (2) the Self-Directed Learning Readiness Scale for Nurses [SDLRS-NE] (Fisher et al., 2001) were used to measure the variables of interest. The combination of these scales and the demographic questionnaire resulted in a 49-item survey, and the estimated time for completion was about 15 to 30 minutes. The GQ-6 and the SDLRS-NE instruments were selected due to their predetermined reliability and validity.

The Gratitude Questionnaire-Six Item Form [GQ-6]

The GQ-6 measures the degree of gratitude participants feel using a 7-point Likert scale. This six-question survey tests the operational definition describing the intensity, frequency, span, and density of gratitude (McCullough et al., 2002). Reliability and validity of the GQ-6 scale were tested in three different studies, which established strong psychometric properties. These

studies explored the construct of gratitude against other constructs (i.e., vitality, optimism, hope, materialism, and envy), and against other scales (i.e., Life Satisfaction Scale, The Big Five Self-Rating Scale, and the Values-Orientation Materialism Scale). Study One yielded a Crobach's alpha of 0.85 and interrater reliability at 0.65 (McCullough et al., 2002). Study Two yielded a Crobach's alpha of 0.81 and goodness of fit at 56.83, p<.001. Study Three measured gratitude against materialism and envy, results indicating a negative correlation between gratitude and materialism and envy (r = -.39), which adds to the construct validity of the GQ-6 measurement tool. Finally, these results, along with an extensive review of the literature, completed in Chapter Two, support the conclusion that the GQ-6 scale is a valid and reliable instrument for measuring gratitude.

The Self-Directed Learning Readiness Scale in Nursing Education [SDLRS-NE]

The SDLRS-NE measures the degree of self-directedness in nursing students. This 40-item measurement tool tests the operational definition of readiness by measuring self-management, desire for learning, and self-control. This measurement is completed by having participants rate on a five-point Likert scale how well they agree or disagree with each statement. Participants can chose from five responses (never, seldom, sometimes, often, and always). The validity and reliability on initial testing in a pilot study (n=201) resulted in a Crobach's alpha at "0.924 (total item pool, 40 items), 0.857 (self-management, 13 items), 0.847 (desire to learn, 12 items), and 0.830 (self-control, 15 items)" (Fisher et al., 2001, p. 520). Adding to validity and reliability, the developers of the SDLRS-NE revisited its validity by conducting a confirmatory factor analysis (Fisher & King, 2010). The results from this analysis suggested that 11 items did show some redundancy; however, do to the small sample size, it is the recommendation that "the

40 item SDLRS-NE should be used until further research examines the relationships between variables (items) across factors in different samples" (Fisher & King, 2010, p. 48).

Furthermore, as there have been some concerns about validity and reliability with the original SDLRS created by Guglielmino in 1977, this version of self-directed readiness in nursing education measures three of the main factors identified by Field (1989): desire to learn (Love of learning); self-management (acceptance of responsibility); and self-control (initiative and independence in learning), and it is void of any negatively phrased items. Therefore, these examples offer evidence that the SDLRS-NE is a reliable and valid instrument for measuring readiness for self-directed learning within the context of nursing education; for a more extensive review, refer to Chapter Two.

The Demographic Questionnaire

The demographic variables of interest included age and class rank (e.g., junior versus senior class). The rationale for selecting age and class rank was based on the fact that these variable have already been determined as influencing factors for developing both gratitude and readiness for self-directed learning. For example, Froh et al. (2011) and McAdams and Bauer (2004), have written extensively on the developmental aspects of gratitude, and it is suggested that as one matures and advances through different life transitions, gratitude is more likely to be developed. Finally, although there are previously established links between spirituality and gratitude (Emmons & Kneezel, 2005; Watkins, 2013), and between spirituality and self-directed learning (English, 2000), spirituality is not the main variable of interest for this study, therefore, it was determined to explore the connections to spirituality at a later date.

In rationalizing these demographics through the lens of readiness for self-direction within nursing education, two points are apparent: first, many researchers have supported the notion that

self-directedness is a part of adult development, and that as adults develop, they become more self-directed (Merriam & Bierema, 2014; Merriam et al., 2007; Caffarella, 1993; Brockett & Hiemstra, 1991; Oddi, 1987). Next, when measuring self-directed readiness in undergraduate nursing students, Smedley (2007) found that "*t*-Testing results appear to indicate that younger students are less ready for SDL than older students" (p. 381), and out of the three defining characteristics of readiness for self-directed learning (self-management, desire for learning, and self-control), findings suggest that undergraduate nursing students "scored least in the self-management subscale" (p. 380). Finally, Kocaman et al. (2009) supports this notion by stating that "our results indicate student perceptions of self-directed learning readiness increase with time in the program; which supports the view that becoming self-directed is a maturational process" (p. 289).

Procedure

Prior to data collection, permission to conduct research was first granted by the Associate Dean from the Nursing Program of interest. Next, a request to conduct research was sent to the Institution's Research Review Board and permission was granted on January 9th, 2015. After gaining access, an application for conducting research with "*exempt status*" was submitted and approved by the University of Tennessee- Knoxville [Human Subjects Institution Review Board approval number: IRB-14-01959XM]. This *"exempt status"* was granted based on the following criteria: (1) research involves a survey procedure, (2) no participant information was collected, (3) no direct contact with participants, (4) no incentives offered, and (5) an anonymous survey link was used to collect data. Finally, permission was granted to access nursing students' institutional email address for distribution of an information sheet and the anonymous survey link.

To ensure the protection of participants, four key components of human rights were included in the information sheet emailed to students: these include beneficence, human dignity, justice, and informed consent (Polit & Beck, 2004). To prevent harm to participants, the risk/benefit ratio was explained to each participant in the form of an information sheet [see Appendix A], viewed in the body of the initial contact email and immediately after accessing the anonymous survey. Minimal risk will be defined as "risks anticipated to be no greater than those ordinarily encountered in daily life or during routine physical or psychological tests or procedures" (Polit & Beck, 2004, p. 146). To avoid coercion, only the Administrative Assistant accessed students' emails for initial recruitment and reminders, meaning that the researcher only had access to collected data. Furthermore, this action of having the Administrative Assistant send electronic correspondence was completed to meet research approval stipulations imposed by the primary site of data collection. Next, full disclosure was provided to participants on the information sheet and included a full description of "the nature of the study, the person's right to refuse participation, the researcher's responsibilities, and likely risks and benefits" (Polit & Beck, 2004, p. 147). With regard to the principles of justice, each participant was ensured anonymity, meaning that it will not be possible to identify data from an individual participant. This was accomplished when each participant accessed the survey via an anonymous link and answered yes or no to the informed consent question. Finally, all collected data was password protected (Polit & Beck, 2004).

The overall procedure for collecting data began with obtaining informed consent from participants. Informed consent was obtained in two ways. First, the participants' implied consent when accessing the anonymous survey link; and second, participants started with an informed consent question on the survey, which stated "I voluntarily agree to participate in this survey."

Finally, a "skip logic" option was activated for this question, meaning that if participants select "yes," they progressed to the rest of the survey; however if participants selects "no," the survey was terminated.

Qualtrics © was the selected internet survey program utilized for collecting survey data; this program is supported by University of Tennessee-Knoxville. To ensure competency and accuracy of the survey, I completed a face-to-face in-service, "Introduction to Qualtrics©," which was offered by the Information Technology (IT) Department at the University of Tennessee- Knoxville. Second, after initial set-up of survey, the survey was previewed by myself and the Qualtrics© site Coordinator for mechanics and appearance. Once the survey was tested for mechanics and functionality, it was sent to participants by the Administrative Assistant, using both "class of 2015" and "class of 2016" email distribution lists from the nursing program of interest. The administration of this survey began on February 6th, 2015, and the survey ended March 4th, 2015 at midnight. After opening the email, the participant was provided an information sheet (see Appendix A). This provided an introduction explaining the purpose of the study, directions for completing the survey, a statement that no monetary incentives will be awarded for participation, and the estimated time for completing the survey.

Next, participants accessed the anonymous survey link, and it began with the information sheet and the informed consent question. To clarify, the anonymous survey link prevents the collection of any personal identifiers (e.g., email address, name, or IP address). Once the participant agreed to participate, he or she was directed to answer the survey questions (i.e., demographic questionnaire, GQ-6, and SDLRS-NE; see Appendices B, C, and D). Furthermore, to increase response rates, two email reminders were sent. The first reminder was sent on February 17th, 2015, and the second reminder was sent on March 2nd, 2015. Also, these

reminder messages were only sent to those who had not completed the survey, and the reminder only restarted the purpose of the study and provided the hyperlink for ease of access (see Appendix E). The protection of confidentiality and anonymity was maintained through the anonymous access link, and both the survey and the results were password protected.

Finally, although there is much debate about offering incentives for completing online surveys, with many suggesting that providing an incentive can increase response rates (Ryu, Couper, & Marans, 2005; Teisl, Roe, & Vayda, 2005). I decided not to offer any incentive for participants in this study to avoid any potential breaches in confidentiality or anonymity.

Data Analysis

The collected data was analyzed using the Statistical Package for the Social Sciences (IBM SPSS©). The descriptive statistics collected included: measures of central tendency (mean, mode, and median) and measures of variability (the interquartile range, the variance (s^2), and the standard deviation). In measuring central tendency in this study, I began with a review of the mean because of its sensitivity. However, it was found that the data set for gratitude was not normally distributed; therefore, I followed the suggestions of Bordens and Abbott (2011) and select the median because it is less sensitive to distribution. Next, the method used to assess variability was based on the understanding that these measures "take into account both the center and the spread of the scores" (Bordens & Abbott, 2011, p. 414); therefore, the standard deviation was the method of used for measuring the spread of scores.

Measures for evaluating validity and reliability of the GQ-6 and the SDLRS-NE measurement tools included (1) internal consistency and (2) inter-rater reliability. Internal consistency with item analysis was assessed by running a Cronbach's coefficient alpha test, which measures the reliability of the scale, and these results were compared to previously

reported studies using the GQ-6 and the SDLRS-NE. Furthermore, in evaluating the results, I followed Colton and Covert's (2007) suggestion that, "as a rule of thumb an alpha of .70 or higher indicates internal consistency" (p. 265). Next, inter-rater reliability was used to assess the percentage of agreement between participants. More specifically, a Cohen's kappa was used to measure the agreement beyond chance (Colton & Covert, 2007). In speaking to the significant of the inter-rater reliability, Burton & Mazerolle (2011) suggest that, "inter-item correlations for items intended to measure the same construct should be moderate but not too high (i.e., between .30-.60), and this suggests that each of the items are not contributing something unique to the construct" (p. 30).

Finally, in Chapter One I proposed eight research questions for exploring the relationships between gratitude and readiness for self-directed learning. The following are a restatement of those research questions and a description of how each question was analyzed.

Question 1: *Is there a significant relationship between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program?*

After examining the descriptive data (i.e., mean, standard deviation, scatter plot, and linear regression), it was determined that the data sets were not normally distributed. Therefore, a nonparametric correlation test was selected to evaluate relationships. More specifically, the Spearman's rho (ρ) was used to answer this question. The values obtained from the Spearman rho test ranges from +1 through 0 to -1, where 0 to +1 equates to a positive or direct relationship, and 0 to-1 equates to an inverse or negative relationship (Bordens & Abbott, 2011). By selecting this nonparametric test, the Spearman rho helps to determine whether or not a relationship is significant, or if that relationship happened by chance (McDonald, 2014). Furthermore,

McDonald (2014) adds that Spearman rho (ρ) does not make assumptions about distribution, and it is most useful for small data sets.

Question 2: *Does a significant relationship exist between gratitude and the three factors of readiness for self-directed learning (1) self-management, (2) desire to learn, and (3) self-control among nursing students enrolled in a four-year baccalaureate nursing program?*

As with question one, this question was answered using a Spearman's rho (ρ) test.

Question 3: *Is there a significant relationship between gratitude, age, and class rank among nursing students enrolled in a four-year baccalaureate nursing program?*

For exploring the relationship between gratitude and age, this portion of the question was answered using the Spearman rho test (ρ). Next, to explore the relationship between gratitude and class rank, a Point - Biserial Correlation Coefficient was utilized. A Point – Biserial is appropriate when one variable is dichotomous (e.g. class rank) and the other variable is continuous (gratitude) (Brown, 2001).

Question 4: *Is there a significant relationship between readiness for self-directed learning, age, and class rank among nursing students enrolled in a four-year baccalaureate nursing program?*

This question was answered using the Spearman rho test (ρ) to determine if a relationship exists between age and readiness for self-directed learning in nursing education. For determine if a relationship between class rank and readiness for self-direction in nursing education, a Point - Biserial Correlation Coefficient was obtained.

Question 5: *Is there a significant difference in gratitude, by class rank?*

This question was answered using the Mann-Whitney Test (*U*), which is another nonparametric test selected, based on the fact that the data sets were not normally distributed.

The Mann-Whitney Test (*u*), "is used to compare two groups and is thus analogous to the *t* test" (Munro, 2005, p. 123). In addition, the Mann-Whitney Test (*U*) can be used "when that data violates the assumptions underlying the parametric tests, especially when the data are not normally distributed" (Munro, 2005, p. 126).

Question 6: *Is there a significant difference in readiness for self-directed learning by class rank?*

As in question 5, a Mann-Whitney Test (*U*) will be used to determine group differences related to readiness for self-directed learning.

Question 7: *Does gratitude or readiness for self-directed learning differ by age groups (e.g. those under the age of 25 years-old versus those greater than 25 years-old)?*

This question was answered using the Mann-Whitney Test (*U*).

Question 8: *To what extent can the combination of selected demographic variables (age or class rank) and gratitude scores predict readiness for self-directed learning scores?*

Multiple regression was used to predict relationships between demographic variables, gratitude, and their effects on readiness for self-directed learning. According to Bordens & Abbott (2011), the advantage of multivariate statistics is that it "provides information needed to evaluate the importance of a predictor variable for explaining variability in the criterion [dependent] variable, given the effects of other predictor variables" (p. 467). To accomplish this multiple regression, I first transformed the data using a Log10 calculation. The purpose of this transformation was to improve normal distribution. After transformation, a step-wise approach was used to test the prediction that age, class rank, and gratitude can influence one's level of readiness for self-directed learning. The selection of a step-wise approach versus simple or hierarchical regression is based on the understanding that the order of entering the variables is

based on the "qualities of the sample data" (Bordens & Abbott, 2011, p. 479). For example, variables are entered according to the amount of variances on the dependent variable. Then variables are entered based on which variable increases the R-square the most (Bordens & Abbott, 2011). Finally, the rationale for conducting multiple regression testing is that multiple regression is most appropriate when making predictions about relationships between one dependent variable (readiness for self-directed learning) and multiple independent variables (gratitude, age, and class rank) (Bordens & Abbott, 2011).

Conclusion

The purpose of this study was to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. A sample of 65 nursing students were collected. Participants completed three instrument scales to measure the relationships between gratitude and readiness for self-directed learning: (1) Gratitude Questionnaire [GQ-6], (2) Readiness for Self-directed Learning Scale in Nursing Education [SDLRS-NE], and (3) a demographic questionnaire. After IRB approval, data collection began on February 6th and ended on March 3rd, 2015. Measurements were collected using an internet-based survey program, Qualtrics©. Finally, in the next chapter, I will present an analysis of the data and discuss the research question.

Chapter Four

Data Analysis

The purpose of this study is to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. Within this chapter, I will present my statistical analyses of the data. I will begin with an overview of the sample. Next, I will discuss the reliability and validity of the Gratitude 6-item Questionnaire (GQ-6) and the Self-Directed Learning Readiness Scale for Nursing Education (SDLRS-NE). Finally, I will present the results for the eight research questions presented in Chapters One and Three.

Overview of the Sample

The population for this study consisted of 130 participants, enrolled as full-time students in a four year baccalaureate nursing program, which is situated within a private, faith-based college in the Southeast United States. The survey was sent to a total of 130 potential participants. Of the 130, 90 participants started the survey but did not complete it. At the end of the data collection period, the survey completion rate was 50%, which resulted in a sample of 65 participants. When reviewing the data sets, six participants did not provide answers to all the questions on the survey; therefore, to avoid missing data errors, these six participant results were eliminated. After ensuring data sets completion, this study analyzed data based on a sample size of 59 or n= 59.

Demographics

For this study, participants answered two demographic questions: age and class rank (junior or senior). Overall, participants' ages ranged from 20 to 67 years of age and there were

25 junior and 34 senior nursing students. The specifics about this sample are provided in Table 4.1 and Table 4.2.

Age

Participants were asked to provide their age in years, to explore the relationships between age, gratitude, and readiness for self-directed learning. Descriptive statistics show that the minimum age was 20, the maximum age for this sample was 67 years old, and the mean score for age was 26.61.

Table 4. 1

Descriptive Statistics for Age

Descriptive Statistics								
	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
What is your age?-years	59	47.00	20.00	67.00	1570.00	26.6102	1.09646	8.42209
Valid N (listwise)	59							

Class Rank

The determination of class rank was the second demographic question obtained from this sample for exploring the relationships between class rank, gratitude, and readiness for self-directed learning. Result for class rank include, 25 junior students and 34 senior students.

Table 4. 2

Descriptive Statistics for Class Rank

Select the option below that best describes your class rank.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Junior Nursing Student	25	42.4	42.4	42.4
	Senior Nursing Student	34	57.6	57.6	100.0
	Total	59	100.0	100.0	

Instrumentation

After exploring demographic questions, reliability testing was completed for both measurement scales (i.e. GQ-6, SDLRS-NE). Internal consistency was assessed by running a Cronbach's coefficient alpha test, which measures the reliability of the scale, and these results were compared to previously reported studies using the GQ-6 and the SDLRS-NE.

Gratitude (GQ-6) Questionnaire

The GQ-6 measurement tool, developed by McCullough et al. (2002), was used to measure the level or degree of gratitude among participants. Table 4.3 reports the Cronbach's alpha result based on a sample size of n = 59.

Table 4. 3

Scale: Gratitude [GQ-6] Reliability Test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.558	.685	6

When comparing reliability of the GQ-6 questionnaire ($\alpha = .558$) to the current empirical literature, it is noticeable that the reliability of the GQ-6 ($\alpha = .558$) did not compare with previously documented internal consistencies. Table 4.4 reports the author, date of publication, types of participants, total number of participants, and their Cronbach's alpha results. Interestingly, three out of the ten studies did not complete an independent reliability test, but instead cited McCullough et al.'s (2002) original alpha results of $\alpha = .82$. As stated in Chapter Three, the desired goal for internal consistency in this study was set at $\alpha = .70$, or greater, which is the current minimum desired standard for internal consistency (Colton & Covert, 2007). Therefore, with $\alpha = .558$, this may indicate either weakness in the instrument, or that some latent factors of gratitude are not being assessed (Colton & Covert, 2007). Furthermore, one might conclude that the lower Cronbach's alpha result is related to the knowledge that the GQ-6 is a measure of generalized gratitude, and not a measure of directional gratitude as it has been applied here within this study.

However, despite potential weaknesses in the GQ-6 measurement, this study, to my knowledge, is the first study to measure GQ-6 questionnaire within the context of nursing education. Also, when exploring the data using a histogram, a mean score of 6.5 (on a 7-point Likert Scale) was obtained for the GQ-6 Questionnaire, and as displayed in Figure 4.1 (see Appendix F), this indicates that the data collected for this measurement was not normally distributed. This information becomes important when making statistical decisions on which method should be used for exploring the relationships between variables. More specifically, this information was used to determine which parametric or nonparametric test is most appropriate. For example, the Pearson's product-moment-correlation has certain assumptions about distribution. According to Munro (2005), "the variables that are being correlated must each have

Table 4. 4

Cronbach's Alpha Comparison between GQ-6 Questionnaire and Current Literature

Author and Date	Participants	N	Cronbach's Alpha
McCullough et al. (2002) - Study 1	Undergraduate Psychology Students	n = 238	α=.82
McCullough et al. (2002) - Study 2	Adult Volunteers	n = 1,228	α= .81
McCullough, Tsang, Emmons (2004)	Adult Volunteers	n = 96	α = .82 *
Kashdan, Usuatte, & Julian (2006)	Participants with PTSD	n = 77	α = .86
Wood, Joseph, & Linley (2007)	Undergraduate Students	n = 236	not reported
Chen, Chen, Kee, & Tsai (2009)	Undergraduate Students	n = 608	α = .80
Lambert, Graham, Fincham, & Stillman (2009) – Study 1	Undergraduate Students	n = 166	α = .83
Lambert, Graham, Fincham, & Stillman (2009) – Study 2	Undergraduate Students	n = 275	Time 1 α = .84 Time 2 α = .84
Toepfer & Walker (2009)	Undergraduate Students	n = 85	α = .82*
Breen, Kasdan, Lenser, & Fincham (2010)	Undergraduate Students	n = 140	α = <.90*
Rash, Matsuba, & Prkachin (2011)	Adult Participants	n = 56	α = .77
Rosmarin, Pirutinsky, Cohen, Galler, & Krumrei (2011)	Adult Participants	n = 405	α = .83

*Cited McCullough et al. (2002) alpha results, no independent test.

a normal distribution; that is, the distribution of their scores must approximate the normal curve"

(p. 241).

Readiness for Self-Directed Learning in Nursing Education (SDLRS-NE)

The SDLRS-NE scale, developed by Fisher, King, and Tague (2001), was selected to

measure readiness for self-directed learning within nursing education (n = 59). This

measurement tool consists of 40-item questions, and it contains three subscales (a) Self -

Management, (b) Desire to Learn, and (c) Self - Control. Table 4.5 reports total scale

Cronbach's alpha (α = .902).

Table 4. 5

Readiness for SDL in Nursing Education [SDLRS-NE] Reliability Test - Total Scale

Reliability Statistics	
Cronbach's Alpha	N of Items
.902	40

After assessing the internal consistency of total scale items, Table 4.6 reports the internal

consistency of each subscale: (a) Self-Management α = .833, (b) Desire-To-Learn α = .804, and

(c) Self-Control α = .846. Finally, in Table 4.7 the SDLRS-NS scale was compared with the

current empirical literature.

Table 4. 6

Readiness for SDL in Nursing Education [SDLRS-NE] Reliability Test- Subscales

Subscale	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Self Management (SM)	.833	.849	13
Desire To Learn (DTL)	.804	.821	12
Self Control (SC)	.846	.857	15

Table 4. 7

Cronbach's Alpha Comparison between SDLRS-NE and Current Literature

Author and Date	Participants	N	Cronbach's Alpha
Fisher, et al. (2001)	Nursing Students	n = 201	Total-item α = .924 SM α = .857 DTL α = .847 SC α = .830
Smedley (2007)	Nursing Students	n = 67	Total-item α = .81 SM α = .810 DTL α = .780 SC α = .844
Kocaman, Dicle, & Ugur (2007)	Nursing Students (Adapted to Turkish)	n = 50	Total-item α = .94 SM α = .87 DTL α = .86 SC α = .88
Yuan, Williams, Fang, & Pang (2012)	Nursing Students (Adapted to Chinese)	n = 485	Total-item α = .925 SM α = .848 DTL α = .825 SC α = .836
El-Gilany & Abusaad (2013)	Nursing Students in Saudi Undergraduate Program	n = 275	Total-item α = .898, subscales not reported

For discussion, the SDLRS-NE measurement tool consistently measures readiness for self-directed learning within this sample ($\alpha = .902$), and results are comparable to previously reported internal consistencies. Also, the SDLRS-NE total-item scale and its subscales are greater than .70, which was the minimum desired standard set in Chapter Three (Colton & Covert, 2007). Another consideration when determining reliability of the SDLRS-NE is being aware that the Cronbach's alpha is influenced by magnitude and number of scale items (Colton & Covert, 2007), meaning that when there are more line items used to measure a construct, this increases the likelihood of properly identifying the construct of interest.

When interpreting the results, the overall mean score was 164.34, and the individual item mean score was 4.1 (on a 5-point Likert Scale). Instructions for interpretation were presented in Chapter Two, but for clarity "the minimum score for the 40-item is 40 and the maximum score of 200, and high scores (>150) represent high levels of SDLR" (Kocaman et al., 2009, p.288). Therefore, with a mean score of 164.34, the participants within this study consider themselves to be highly self-directed. Like the GQ-6 Questionnaire, the data collected for the SDLRS-NE was not normally distributed, which suggests that nonparametric testing is more appropriate for examining the relationships between gratitude and readiness for self-directed learning within this sample. According to McDonald (2014) the Spearman's rho (ρ) does not "assume [a] relationship is linear, and it does not assume that the measurements are normal or homoscedastic" (p. 210). Figure 4.2 (see Appendix F) displays the histogram for the SDLRS-NE, and the image shows that the data is positively skewed. Finally, this discussion on data distribution is important for providing rationales for the statistical decisions that are presented within the next section of this chapter.

Analysis of the Research Questions

Within this section, I will address the eight research questions proposed in Chapters One and Three. These research questions were asked to assess the relationships between gratitude and readiness for self-directed learning. Data were analyzed using SPSS and are reported below. However, to recap some general information: the sample size was n=59; age $m = 26$; frequencies juniors = 25 and seniors = 34; GQ-6 mean score $m = 39.23$ (minimum = 6, maximum = 42); SDLRS_NE mean score m = 164.34 (minimum = 40, maximum = 200). These results imply that within this study, participants consider themselves to be both highly grateful and highly self-directed, which results in having data sets that are not normally distributed.

Question 1: *Is there a significant relationship between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program?*

This question was answered using both nonparametric and parametric correlation tests. More specifically, the Spearman's rho (ρ) and the Pearson's product-moment-correlation coefficient (*r*) were used to explore the relationship between gratitude and readiness for self-directed learning. The rationale for selecting both nonparametric and parametric correlational testing was based on sample distribution (see discussion above). As stated earlier, the Spearman's rho (ρ) is less affected by data distribution, and the rationale for using the Pearson's product-moment-correlation coefficient is that this parametric test is the "usual method by which the relation between two variables are quantified" (Munro, 2005, p.241). However, since the data violate the assumption of normal distribution, the Spearman's rho (ρ) strengthens the conclusion that a relationship does exist between variables.

Figure 4.3 (see Appendix F) displays the scatterplot between GQ-6 questionnaire and the SDLRS-NE among nursing students enrolled in a four-year baccalaureate nursing program.

Table 4.8 displays the results of the Pearson's product-moment-correlation coefficient, and Table 4.9 displays the Spearman's rho (ρ) results. When interpreting results, Munro (2005) suggests the following categories for determining the strength or magnitude of a relationship: ".00-.25 = little if any relationship, .26-.49 = low, .50-.69 = moderate, .70-.89 = high, and .90-1.00 = very high" (p. 249). According to these categories, there is a small, but significant positive relationship between gratitude and one's readiness for self-directed learning (r = .359, p = .005).

Furthermore, based on the assumptions of distribution, Table 4.9 displays the results of the Spearman's rho (ρ), which is less sensitive to distribution. The results of the Spearman's rho (ρ) support the conclusion that there is a small, but significant positive relationship between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. Therefore, when utilizing both parametric and nonparametric testing to determine correlations, both results indicated a small positive relationship (r = .359, p = .005, and ρ = .358, p = .005).

Table 4. 8

Pearson's product-moment-correlation coefficient (r) between GQ-6 and SDLRS-NE

Correlations			
		Gratitude	SDLRS_NE_Scale
Gratitude	Pearson Correlation	1	.359**
	Sig. (2-tailed)		.005
	N	59	59
SDLRS_NE_Scale	Pearson Correlation	.359**	1
	Sig. (2-tailed)	.005	
	N	59	59
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 4. 9

Spearman's rho (p) Correlation between GQ-6 and SDLRS-NE

<table>
<tr><th colspan="3">Correlations</th><th></th><th></th></tr>
<tr><td></td><td></td><td></td><td>Gratitude</td><td>SDLRS_NE_Scale</td></tr>
<tr><td rowspan="6">Spearman's rho</td><td rowspan="3">Gratitude</td><td>Correlation Coefficient</td><td>1.000</td><td>.358[**]</td></tr>
<tr><td>Sig. (2-tailed)</td><td>.</td><td>.005</td></tr>
<tr><td>N</td><td>59</td><td>59</td></tr>
<tr><td rowspan="3">SDLRS_NE_Scale</td><td>Correlation Coefficient</td><td>.358[**]</td><td>1.000</td></tr>
<tr><td>Sig. (2-tailed)</td><td>.005</td><td>.</td></tr>
<tr><td>N</td><td>59</td><td>59</td></tr>
<tr><td colspan="5">**. Correlation is significant at the 0.01 level (2-tailed).</td></tr>
</table>

Next, a coefficient of determination was conducted to determine the amount of "variance the two variables being tested share" (Bordens & Abbott, 2011, p. 424). The amount of variance between gratitude and readiness for self-directed learning is $r^2 = .114$, or 11.4% of one's readiness for self-directed learning is explained by one's level of gratitude. In the next question, a closer look at these relationship will be examined by exploring the relationship between gratitude and the three subscales of the SDLRS-NE (Self - Management, Desire-to-Learn, and Self - Control).

Question 2: *Does a significant relationship exist between gratitude and the three factors of readiness for self-directed learning (1) self-management, (2) desire to learn, and (3) self-control among nursing students enrolled in a four-year baccalaureate nursing program?*

This question was answered using both nonparametric and parametric correlation tests. More specifically, the Pearson's product-moment-correlation coefficient (*r*) and the Spearman's

rho (ρ) were used to explore the relationship between gratitude (GQ-6) and the three subscales of the self-directed learning readiness scale in nursing education (SDLRS-NE). See Figures 4.4, 4.5, and 4.6 (see Appendix F) for scatterplots between the GQ-6 six-item questionnaire and each of the subscales for the SDLRS-NE measurement tool (i.e. Self - Management, Desire-to-Learn, and Self - Control).

Table 4.10 displays the Pearson's product-moment-correlation coefficient (r), and Table 4.11 displays the Spearman's rho correlation (ρ) results. As with the pervious question, I begin with the Pearson's product-moment-correlation coefficient, and then I provide the results of the Spearman's rho correlation. Based on the results displayed in Table 4.10, a small, but significant positive relationship is noted between gratitude and Desire-to-Learn ($r = .355$, $p < 0.01$), and between gratitude and Self-Control ($r = .295$, $p = .023$).

The results from Table 4.11 indicate that there is in fact a small, but significant relationship between gratitude and self-control (ρ $= .283$, $p < .05$), and between gratitude and desire-to-learn (ρ $= .314$, $p < .05$). These results adds support to the interpretation that there is a positive relationship between variables, but unlike the Pearson's correlations, these relationships are only significant at a p value of .05. They suggest that a larger, more diverse, sample size is needed to further evaluate these relationships. However, based on the results presented here, it does appear that as gratitude increases, self-control and desire-to-learn also increases.

Next, a coefficient of determination was completed to describe the variance among gratitude, desire-to-learn, and self-control. Results indicate that 12.6% ($r2 = .126$) of the variance in desire-to-learn is accounted for by one's level of gratitude, and for self-control the variance was 8.7% ($r2 = .087$), meaning that 8.7% of one's level of self-control is accounted for by gratitude.

Table 4. 10

Pearson's Correlations (r) between GQ-6 and SDLRS-NE, by Subscales

Correlations		Gratitude	SM	DTL	SC
Gratitude (GQ6)	Pearson Correlation	1	.226	.355**	.295*
	Sig. (2-tailed)		.085	.006	.023
	N	59	59	59	59
Self Management (SM)	Pearson Correlation	.226	1	.465**	.357**
	Sig. (2-tailed)	.085		.000	.006
	N	59	59	59	59
Desire_to_Learn (DTL)	Pearson Correlation	.355**	.465**	1	.597**
	Sig. (2-tailed)	.006	.000		.000
	N	59	59	59	59
Self Control (SC)	Pearson Correlation	.295*	.357**	.597**	1
	Sig. (2-tailed)	.023	.006	.000	
	N	59	59	59	59
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Table 4. 11

Spearman's rho Correlation (p) between GQ-6 and SDLRS-NE, by Subscales

Correlations			Gratitude	SM	DTL	SC
Spearman's rho	Gratitude	Correlation Coefficient	1.000	.235	.314[*]	.283[*]
		Sig. (2-tailed)	.	.074	.016	.030
		N	59	59	59	59
	Self Management	Correlation Coefficient	.235	1.000	.476[**]	.313[*]
		Sig. (2-tailed)	.074	.	.000	.016
		N	59	59	59	59
	Desire_to_Learn	Correlation Coefficient	.314[*]	.476[**]	1.000	.572[**]
		Sig. (2-tailed)	.016	.000	.	.000
		N	59	59	59	59
	Self Control	Correlation Coefficient	.283[*]	.313[*]	.572[**]	1.000
		Sig. (2-tailed)	.030	.016	.000	.
		N	59	59	59	59
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Question 3: *Is there a significant relationship between gratitude, age, and class rank among nursing students enrolled in a four-year baccalaureate nursing program?*

This question was answered in two parts. First, a Spearman rho test (ρ) was preformed to explore the relationship between gratitude and age. Next, a point - biserial correlation coefficient was utilized to explore the relationship between gratitude and class rank. Table 4.12 displays the Spearman's rho (ρ) for gratitude and age.

Table 4. 12

Spearman's rho Correlation (p) between Gratitude and Age

Correlations			Gratitude	What is your age?-years
Spearman's rho	Gratitude	Correlation Coefficient	1.000	.040
		Sig. (2-tailed)	.	.762
		N	59	59
	What is your age?-years	Correlation Coefficient	.040	1.000
		Sig. (2-tailed)	.762	.
		N	59	59

Table 4.13 displays the point-biserial correlation coefficient for gratitude and class rank. The point- biserial correlation was used because class rank is a dichotomous variable, and Bordens and Abbott (2011), explains that "in practice the point-biserial correlation is computed using the Pearson's *r* correlation test" (p. 421).

Table 4. 13

Point-Biserial Correlation Coefficient between GQ-6 and Class Rank

Correlations			
		Gratitude	Select the option below that best describes your class rank.
Gratitude	Pearson Correlation	1	.227
	Sig. (2-tailed)		.084
	N	59	59
Select the option below that best describes your class rank.	Pearson Correlation	.227	1
	Sig. (2-tailed)	.084	
	N	59	59

Result indicate that this is not a significant relationship between gratitude and age. However, there are some contributing factors to consider when interpreting the results. First, the magnitude of this relationship is "partly dependent on the proportion of participants falling into each dichotomous category" (Bordens & Abbott, 2011, p. 421). For example, within this sample there are 25 junior nursing students and 34 senior nursing student, and if "the number of participants in each category are not equal, the maximum attainable value for the point-biserial correlation is less than ±1.0, which may underestimate the relationship" (Bordens & Abbott, 2011, p. 421). The second consideration to make is that the strength of the point-biserial correlation is limited by the dichotomous variable, which can also underestimate the relationship (Bordens & Abbott, 2011). Therefore, with p =.084, a closer examination with a scatterplot suggests a slight positive trend in this relationship. Figure 4.7 (see Appendix F) displays this scatterplot. For interpretation 1 = junior nursing students and 2 = senior nursing students. Overall, results indicate that within this sample, there is not a significant relationship between

gratitude and age, or between gratitude and class rank, but at a closer examination using a scatter plot, there appears to be a positive upward trend in gratitude among class rank.

Question 4: *Is there a significant relationship between readiness for self-directed learning, age, and class rank among nursing students enrolled in a four-year baccalaureate nursing program?*

This question was also answered in two parts. First, the relationship between the three subscales for the readiness for self-directed learning in nursing education and age was answered using the Spearman rho test (ρ). Second, the relationship between the three subscales for readiness for self-directed learning in nursing education (SDLRS-NE) and class rank was answered using point - biserial correlation coefficient. Table 4.14 displays the Spearman's rho (ρ) for the three subscales of SDLRS-NE and age.

Table 4.15 displays the Point-Biserial Correlation Coefficient for the three subscales of SDLRS-NE and class rank. Results indicate that there is a small, but significant, positive relationship between age and desire-to-learn ($\rho = .259$, $p = .048$), which suggests that as age increases one's desire-to-learn also increases. Other insights from this statistical test are that there is not a significant relationship between age and self – management, or between age and self-control.

Table 4. 14

Spearman's rho (p) Correlation between the Three Subscales of SDLRS-NE and Age

Correlations			Age	SM	DTL	SC
Spearman's rho	What is your age?-years	Correlation Coefficient	1.000	-.100	.259*	.163
		Sig. (2-tailed)	.	.451	.048	.217
		N	59	59	59	59
	SelfManagement	Correlation Coefficient	-.100	1.000	.476**	.313*
		Sig. (2-tailed)	.451	.	.000	.016
		N	59	59	59	59
	Desire_to_Learn	Correlation Coefficient	.259*	.476**	1.000	.572**
		Sig. (2-tailed)	.048	.000	.	.000
		N	59	59	59	59
	SelfControl	Correlation Coefficient	.163	.313*	.572**	1.000
		Sig. (2-tailed)	.217	.016	.000	.
		N	59	59	59	59
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 4. 15

Point-Biserial Correlation between the Three Subscales of SDLRS-NE and Class Rank

Correlations		Class Rank	SM	DTL	SC
Select the option below that best describes your class rank.	Pearson Correlation	1	.030	-.092	-.029
	Sig. (2-tailed)		.822	.487	.828
	N	59	59	59	59
SelfManagement	Pearson Correlation	.030	1	.465**	.357**
	Sig. (2-tailed)	.822		.000	.006
	N	59	59	59	59
Desire_to_Learn	Pearson Correlation	-.092	.465**	1	.597**
	Sig. (2-tailed)	.487	.000		.000
	N	59	59	59	59
SelfControl	Pearson Correlation	-.029	.357**	.597**	1
	Sig. (2-tailed)	.828	.006	.000	
	N	59	59	59	59
**. Correlation is significant at the 0.01 level (2-tailed).					

When examining these relationships, results indicate that there is not a significant relationship between class rank and self-management, desire-to-learn, or self-control. Furthermore, with the potential for underestimating the relationships, a scatterplot between SDLRS-NE and class rank was conducted. Figure 4.8 (see Appendix F) displays this scatterplot. Again, for interpretation, 1 = junior nursing students and 2 = senior nursing students.

In summary, the results of the Spearman's rho (ρ) indicates that there is a small, but significant relationship between age and desire-to-learn $\rho = .259$, $p = .048$. The point-biserial correlation coefficient and scatterplot indicate that, within this sample, there is not a significant relationship between readiness for self-directed learning and class rank.

Question 5: *Is there a significant difference in gratitude, by class rank?*

This question was answered using a Mann- Whitney Test (*U*). Table 4.16 displays the results for the Mann-Whitney Test (*U*), which is a nonparametric test exploring the differences between groups. In addition, the Mann-Whitney Test (*U*) is the nonparametric alternative to the Independent-Sample T Test, and determines if the "median of a variable for participants in one group is significantly different from the median of that variable for participants in a different group, and does not require that the distribution have any particular shape" (DeCoster, 2006, p. 13-14). The Mann-Whitney test (*U*) mean rank report indicates that senior responses to gratitude were slightly higher than junior; but overall, there was no statistical differences between groups, $U = 344.0$, p = .207, r = -0.164.

Question 6: *Is there a significant difference in readiness for self-directed learning, by class rank?*

A Mann-Whitney test (*U*) was used to determine if there were differences between class rank and readiness for self-directed learning. Table 4.17 shows these results. Based on results, the Mann-Whitney (*U*) test found no differences between class rank and one's level of readiness for self-directed learning; $U = 402.0$, p = .724, r = -0.0459. Furthermore, when making the prediction that seniors would be more self-directed than junior nursing students, a
 1 -tailed test was examined; however, with a p value of .388, this prediction was not significant. Therefore, the null hypothesis that there is no differences between groups is accepted.

Question 7: *Does gratitude or readiness for self-directed learning differ by age groups (e.g. those under the age of 25 years-old versus those greater than 25 years-old)?*

The Mann-Whitney (*U*) test was used to determine whether or not there are differences between gratitude and readiness for self-directed learning by age. To accomplish this, two independent groups were created: (1) participants less than 25 years of age and (2) participants

greater than 25 years of age (i.e., 26 years or older). The rationale for these selected groups was based on the knowledge that the mean age for this sample was $m = 26.6$ (see Table 4.1). Table 4.18 reports the differences between age groups and gratitude, and Table 4.19 reports the Mann-Whitney (U) test for age groups and readiness for self-directed learning. When reviewing these results (U= 356.0, p = .580), there is not a difference between age groups and their level of gratitude.

As Table 4.19 demonstrates, a significant finding is observed for the subscale of desire-to-learn (U= 253.5, p = .028). This implies that there is a small, but significance difference between age groups and desire to learn. When exploring the mean rank, the mean rank for participants greater than 25 years of age was 36.83, versus a mean rank of 26.5 for those younger than 25 years of age. Therefore, for the subscale of desire-to-learn the null hypothesis is rejected, concluding that there is in fact a difference between age and one's desire-to-learn. The Mann- Whitney (U) results for other subscales demonstrate that there is not a significant difference between age groups in relation to either self–management or self–control (Self-Management U = 377.00, p =. 835; Self Control U = 321.50, p = .272).

Table 4. 16

Mann-Whitney Test between Gratitude and Class Rank

Ranks				
	Select the option below that best describes your class rank.	N	Mean Rank	Sum of Ranks
Gratitude	Junior Nursing Student	25	26.76	669.00
	Senior Nursing Student	34	32.38	1101.00
	Total	59		

Test Statistics[a]			
			Gratitude
Mann-Whitney U			344.000
Wilcoxon W			669.000
Z			-1.262
Asymp. Sig. (2-tailed)			.207
Monte Carlo Sig. (2-tailed)	Sig.		.209[b]
	99% Confidence Interval	Lower Bound	.199
		Upper Bound	.220
Monte Carlo Sig. (1-tailed)	Sig.		.100[b]
	99% Confidence Interval	Lower Bound	.093
		Upper Bound	.108
a. Grouping Variable: Select the option below that best describes your class rank.			
b. Based on 10000 sampled tables with starting seed 2000000.			
Hypothesis Test Summary			
Null Hypothesis			
The distribution of Gratitude is the same across categories of select the option below that best describes your class rank			
Asymptotic significances are displayed. The significance level is .05.			

Table 4. 17

Mann-Whitney Test between SDLRS-NE and Class Rank

Ranks				
	Select the option below that best describes your class rank.	N	Mean Rank	Sum of Ranks
SDLRS_NE_Scale	Junior Nursing Student	25	30.92	773.00
	Senior Nursing Student	34	29.32	997.00
	Total	59		

Test Statistics[a]	
	SDLRS_NE_Scale
Mann-Whitney U	402.000
Wilcoxon W	997.000
Z	-.353
Asymp. Sig. (2-tailed)	.724
a. Grouping Variable: Select the option below that best describes your class rank.	

Hypothesis Test Summary			
Null Hypothesis	Test	Sig.	Decision
The distribution of SDLRS_NE_Scale is the same across categories of select the option below that best describes your class rank	Independent-Samples Mann-Whitney U Test	.724	Retain the null hypothesis
Asymptotic significances are displayed. The significance level is .05.			

Table 4. 18

Mann-Whitney (U) between Age Groups and Gratitude (GQ-6)

Ranks				
	AgeGroup	N	Mean Rank	Sum of Ranks
Gratitude	less than 25 years old	39	30.87	1204.00
	greater than 25 years old	20	28.30	566.00
	Total	59		

Test Statistics[a]			
			Gratitude
Mann-Whitney U			356.000
Wilcoxon W			566.000
Z			-.553
Asymp. Sig. (2-tailed)			.580
Monte Carlo Sig. (2-tailed)	Sig.		.581[b]
	99% Confidence Interval	Lower Bound	.568
		Upper Bound	.594
Monte Carlo Sig. (1-tailed)	Sig.		.287[b]
	99% Confidence Interval	Lower Bound	.276
		Upper Bound	.299
a. Grouping Variable: AgeGroup			
b. Based on 10000 sampled tables with starting seed 1502173562.			

Hypothesis Test Summary			
Null Hypothesis	**Test**	**Sig.**	**Decision**
The distribution of Gratitude is the same across categories of AgeGroup	Independent-Samples Mann-Whitney U Test	.580	Retain the null hypothesis
Asymptotic significances are displayed. The significance level is .05			

Table 4. 19

Mann-Whitney (U) between Age Groups and Readiness for Self-Directed Learning (SDLRS-NE)

Ranks				
	AgeGroup	N	Mean Rank	Sum of Ranks
SelfManagement	less than 25 years old	39	30.33	1183.00
	greater than 25 years old	20	29.35	587.00
	Total	59		
Desire_to_Learn	less than 25 years old	39	26.50	1033.50
	greater than 25 years old	20	36.83	736.50
	Total	59		
SelfControl	less than 25 years old	39	28.24	1101.50
	greater than 25 years old	20	33.43	668.50
	Total	59		

Test Statistics[a]			
	SelfManagement	Desire_to_Learn	SelfControl
Mann-Whitney U	377.000	253.500	321.500
Wilcoxon W	587.000	1033.500	1101.500
Z	-.209	-2.191	-1.100
Asymp. Sig. (2-tailed)	.835	.028	.272
a. Grouping Variable: AgeGroup			

Hypothesis Test Summary			
Null Hypothesis	Test	Sig.	Decision
The distribution of Self Management is the same across categories of AgeGroup	Independent-Samples Mann-Whitney U Test	.835	Retain the null hypothesis
The distribution of Desire_to_Learn is the same across categories of AgeGroup	Independent-Samples Mann-Whitney U Test	.028	Reject the null hypothesis
The distribution of Self Control is the same across categories of AgeGroup	Independent-Samples Mann-Whitney U Test	.272	Retain the null hypothesis
Asymptotic significances are displayed. The significance level is .05.			

Question 8: *To what extent can the combination of selected demographic variables (age or class rank) and gratitude scores predict readiness for self-directed learning scores?*

Before reporting on how this research question was answered, I begin with a discussion on multiple regression and its assumptions. This information will be important for interpreting results. According to Osborne and Waters (2002) there are four major assumptions when using multiple regression, and these include, (1) normality, (2) linearity, (3) reliability of measurement, and (4) homoscedasticity. First, "regression assumes that the variables have a normal distribution, and highly skewed data or outliers can distort relationships and test significance" (Osborne & Waters, 2002, p. 1). As suggested (Osborne & Waters, 2002), normality can be determined using the Kolmogorov- Smirnov test. Table 4.20 displays these results for the Kolmogorov-Smirnov Test for the GQ-6 questionnaire, age, class rank, and the SDLRS-NE measurement tool.

Table 4. 20

Komogorov-Smirnov Test for GQ-6, SDLRS-NE, Age, and Class Rank

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
What is your age?-years	.237	59	.000	.706	59	.000
Select the option below that best describes your class rank.	.379	59	.000	.628	59	.000
SDLRS_NE_Scale	.107	59	.089	.979	59	.392
Gratitude	.210	59	.000	.885	59	.000
a. Lilliefors Significance Correction						

For interpretation, the Kolmogorov-Smirnov tests the null hypothesis that there is no significant difference between the data tested and normal distribution, meaning that the data is normally distributed, and if significance is obtained (p = <.50), this suggests that the data is not normally distributed. Therefore, for this sample, SDLRS-NE Scale has a normal distribution (p = .089), and the null hypothesis that there is no significant difference between SDLRS-NE and normal distribution is accepted. When examining the GQ-6, significance (p = < .001) was obtained, which rejects the null hypothesis and suggests that this data set is not normally distributed. Finally, significance level for both age (p = < .001) and class rank (p = <.001) also suggests that these demographic variables are not normally distributed.

The second assumption of multiple regression is the assumption that "relationships are linear in nature" (Osborne & Waters, 2002, p. 1), meaning that multiple regression is most accurate when this linearity exists. Within this study, the examination of a linear relationship was assessed using residual plots. Residual plots explores predicted values versus actual values (Osborne & Waters, 2002). Figure 4.9 displays the residual plots for the GQ-6 and SDLRS-NE, and Figures 4.10 and 4.11 (see Appendix F) displays the residual plots for each of the demographic questions (i.e., age and class rank) and SDLRS-NE.

When examining these residual plots for the independent variable (i.e., gratitude, age, and class rank), it is noticeable that a linear relationship is not observed and each residual plot example contains outliers. This limits the reliability of the relationships being tested. Therefore, with these residual plots, data within this sample violates some of the assumptions of multiple regression, and interpretation of results must be interpreted with caution.

The third assumption of multiple regression is the reliability of the measurement tool (Osborne & Waters, 2002). Violations in reliability test (e.g. Cronbach's alpha ≤ .70) alter the

ability to make predications because of an "over-estimation of the true relationship" (Osborne &

Waters, 2002, p. 2). Within this study, the GQ-6 questionnaire obtained a Cronbach's alpha

of .558 and the SDLRS-NE Cronbach's alpha = .902. Therefore, based on the assumptions of

reliability, the GQ-6 may cause an over-estimation of the true relationship between gratitude and

readiness for self-directed learning; and again, the conclusions made about these predictions

should be made with caution. For the fourth assumption of homoscedasticity, which "means that

that variance of errors are the same across all levels of the independent variable" (Osborne &

Waters, 2002, p. 4), this can be assessed by reexamining the residual plots in Figures 4.9, 4.10,

and 4.11. "Ideally, residuals [should be] randomly scattered around 0 (the horizontal line)

providing a relative even distribution" (Osborne & Waters, 2002, p. 4). As Figures 4.9, 4.10, and

4.11 reveal, the most homoscedasticity is seen with the GQ-6, which again, limits the ability to

make predictions about how gratitude, age, and class rank influences readiness for self-directed

learning.

This section began with an overview of assumptions made with multiple regression, and

based on the discussion above, the results reported here should be interpreted with caution. The

rationale for completing multiple regression within this study was exploratory in nature, and to

gain a better understanding of the true or potential relationship gratitude, age, and class rank may

have with readiness for self-directed learning. Therefore, to answer this question, multiple

regression was used to predict relationships between demographic variables, gratitude, and their

effects on readiness for self-directed learning. To accomplish this, I first transformed the data

using a Log10 calculation. The purpose of this transformation was to improve normal

distribution. After transformation, a stepwise approach was used to test the prediction that age,

class rank, and gratitude can influence one's level of readiness for self-directed learning. Table

4.21 displays the multiple regression test with a stepwise approach for desire-to-learn, and Table 4.22 displays the multiple regression test, stepwise approach with self-control.

Based on Table 4.21, when making predictions between gratitude, demographic variable (age, class rank) and their influence on the subscale desire-to-learn, results indicate that gratitude is a greater predictor than one's age or class rank when predicating desire-to-learn (p = .006). Other variables were excluded. Furthermore, within this sample, multiple regression testing with a stepwise approach suggests that gratitude is a stronger predictor for self-control, than either age or class rank (p. = .023). Next, multiple regression was performed to predict the influence of gratitude, age, class rank and one's level of self-management. Output from SPSS indicates that all variables were excluded, suggesting that one's age, class rank, level of gratitude are not predictor for self-management.

Conclusion

In Chapter Four, I have presented the descriptive statistics related to demographic questions. Second, I assessed the validity and reliability of the GQ-6 questionnaire and the SDLRS-NE 40-item measurement tool using the Cronbach's alpha test and intraclass correlation coefficient (ICC). Next, I presented an analysis of each research question proposed in Chapters One and Three. Before entering into a discussion on the significant findings, future directions for research, and implications for practice, which will be covered in Chapter Five, Table 4.23 provides a summary of significant findings.

Table 4. 21

Multiple Regression with Stepwise Approach- Desire-to-Learn

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Gratitude	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
a. Dependent Variable: Desire_to_learn			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.354[a]	.126	.110	.40400
a. Predictors: (Constant), Gratitude				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.335	1	1.335	8.181	.006[b]
	Residual	9.303	57	.163		
	Total	10.639	58			
a. Dependent Variable: Desire_to_learn						
b. Predictors: (Constant), Gratitude						

Excluded Variables[a]						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	What is your age?-years	.230[b]	1.895	.063	.245	.994
	Select the option below that best describes your class rank.	-.184[b]	-1.457	.151	-.191	.949
a. Dependent Variable: Desire_to_learn						
b. Predictors in the Model: (Constant), Gratitude						

Table 4. 22

Multiple Regression with Stepwise Approach- <u>Self-Control</u>

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Gratitude	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
a. Dependent Variable: SelfControl			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.295[a]	.087	.071	.39330
a. Predictors: (Constant), Gratitude				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.839	1	.839	5.424	.023[b]
	Residual	8.817	57	.155		
	Total	9.656	58			
a. Dependent Variable: SelfControl						
b. Predictors: (Constant), Gratitude						

Coefficients[a]									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.500	.786		3.179	.002			
	Gratitude	.279	.120	.295	2.329	.023	.295	.295	.295
a. Dependent Variable: SelfControl									

Table 4.22 Continued.

Excluded Variables[a]		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
Model						Tolerance
1	What is your age?-years	.023[b]	.178	.860	.024	.994
	Select the option below that best describes your class rank.	-.101[b]	-.774	.442	-.103	.949
a. Dependent Variable: SelfControl						
b. Predictors in the Model: (Constant), Gratitude						

Table 4. 23

Summary of Findings

Statistical Test	Results	Significance Level	Conclusions
Cronbach's Alpha for GQ-6 questionnaire	$a = .558$	N/A	Compared to previously reports alpha levels of .82, the GQ-6 is less than .70, which is the suggested minimum standard, and it is below previously reported Cronbach alpha results.
Cronbach's Alpha for SDLRS-NE Self- Management Desire-to-Learn Self-Control	$a = .902$ SM $a = .833$ DTL $a = .804$ SC $a = .846$	N/A N/A	Comparable to current literature. Total scale items and the (3) subscales have strong reliability and validity for measuring readiness for self- directed learning in nursing education.
Mean Score for SDLRS-NE	$m= 164.34$	Minimum = 40, Maximum = 200	In general, this sample considers himself or herself to be highly self-directed.
Mean Score for GQ-6 Questionnaire	$m = 39.2$	Minimum = 6, Maximum = 42	In general, this sample considers himself or herself to have high levels of gratitude.

Table 4.23 Continued.

Statistical Test	Results	Significance Level	Conclusions
Pearson's *r* between GQ-6 and SDLRS-NE	*r* = .359	p = .005	There is a positive correlation between gratitude and Readiness for SDL.
Spearman's rho (ρ) between GQ-6 and SDLRS-NE	ρ = .358	p = .005	There is a positive correlation between gratitude and SDLRS- NE, even when there is not an assumption of normal distribution.
Pearson's *r* between the GQ-6 and the three subscales of SRLRS-NE Self-Management Desire-to-learn Self- Control	SM *r* = .226 DTL *r* = .355 SC *r* = .295	SM p = .085 DTL p = .006 SC p = .023	There is a small, but significant, positive relationship between gratitude and desire-to-learn and the subscale self-control. There is not a significant relationship between gratitude and self-management.
Spearman's rho ρ between gratitude and the three subscale of SRLRS-NE Self-Management Desire-to-learn Self- Control	SM ρ = .235 DTL ρ = .314 SC ρ = .283	SM p = .074 DTL p = .016 SC p = .030	There is a small, but significant, positive (p =<.05) relationship between gratitude and the subscales of DTL and SC.
Spearman's rho (ρ) between Gratitude and Age.	Age ρ = .040	Age p = .762	There is not a significant relationship between age and gratitude.
Point-Biserial Correlation Coefficient between Gratitude and Class Rank	Class Rank *r* = .227	Class Rank p = .084	There is not a significant relationship between gratitude and Class Rank.

Table 4.23 Continued.

Statistical Test	Results	Significance Level	Conclusions
Spearman's rho (ρ) between the three subscales of SDLRS-NE and age	DTL ρ = .259 SM ρ = -.100 SC ρ = .163	DTL p = .048 SM p = .451 SC p = .217	There is a small, but significant relationship between age and DTL.
Point-Biserial Correlation Coefficient between SDLRS-NE and Class Rank	DTL ρ = -.092 SM ρ = .030 SC ρ = -.029	DTL p = .487 SM p = .822 SC p = .828	There is not a relationship between SDLRS-NE and Class Rank
Mann-Whitney Test (*U*) between class rank and gratitude	*U*= 344.0	p = .207	There is no difference in gratitude between groups.
Mann-Whitney Test (*U*) between class rank and SDLRS-NE	*U* = 402.0	p = .724	There is no difference in SRLRS-NE by class rank.
Mann-Whitney Test (*U*) between age groups and gratitude	*U* = 356.0	p = .580	There is no difference in gratitude between groups.
Mann-Whitney Test (*U*) between age groups and three subscales of SDLRS-NE	DTL *U* = 253.5 SC *U* = 321.5 SM *U* = 377.0	DTL p = .028 SC p = .272 SM p = .835	There is a significant difference in DTL between groups.
Multiple Regression: predicting SDLRS-NE	Gratitude & DTL r =.354 Gratitude & SC r = .295 All predictors were excluded for SM – unable to use age, class rank, or gratitude as predictors for SM.	p = .006 p = .023	First, of the three predictors for DTL only gratitude was found to have influence of DTL scores. Second, of the three predictors for SC, only gratitude was found to influence SC scores.

Chapter Five

Summary and Conclusions

Previous chapters provided an introduction to the study, a comprehensive literature review related to gratitude, readiness for self-directed learning, and their potential connections for improving one's learning experience. Chapter Three described the research design and restated the research questions. Chapter Four presented the data analyses and rationales for specific statistical methods. Within this chapter, I will provide a discussion of the major findings presented in Chapter Four. Next, I will discuss implications for practice and recommendations for future research directions related to gratitude, readiness for self-directed learning, and how a combination of these attributes influence the learning experience.

Summary of the Study

The purpose of this study was to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. It was proposed that a greater understanding of the relationships between gratitude and readiness for self-directed learning might help to identify important resources for self-directed learning. For example, as stated in Chapter Two, gratitude may benefit the self-directed learner in four distinct ways. Gratitude can improve one's experiences, build social relationships, encourage self-acceptance, and it improves one's ability to deal with setbacks more effectively (Watkins, 2014).

For this study, a survey was sent to 130 nursing students enrolled at a four-year baccalaureate nursing program, situated in a private, faith-based college in the Southeast United States. The recruitment process started with an email, requesting participation. This initial email contained an information sheet and a secured web link to gain access to the online survey. Next,

to increase response rate, two email reminders were sent to those potential participants who had not started the online survey. At the end of data collection, 65 participants out of the 130 requested had completed the survey, resulting in a 50% completion rate. However, six of these participants were eliminated because they did not provide answers to all survey questions. Therefore, data analyses for this study was completed based on a sample size of 59 or n = 59, which accounted for 45% of the population being examined. Participants were asked to complete the GQ-6 questionnaire, the SDLRS-NE scale, and two demographic questions, resulting in a 48-question survey.

To summarize this sample, the average age was 26.61, with a minimum age of 20 and a maximum age of 67. Descriptive statistics for class rank included 25 junior nursing students and 34 senior nursing students. The mean score for the GQ-6 questionnaire was 39.23 (minimum score possible = 6, maximum score possible = 42), and the mean score for SDLRS-NE was 164.34 (minimum score possible = 40, maximum score possible = 200). Therefore, within this sample, participants consider themselves to have high levels of both gratitude and readiness for self-directed learning.

Evaluation of Measurement

The validity and reliability of the measurement tools [GQ-6 & SDLRS-NE] were evaluated using the Cronbach's alpha and the Intraclass Correlation Coefficient (ICC) test. Significant findings includes a Cronbach's alpha of .902 for the SDLRS-NE, and for the GQ-6 Cronbach's alpha was .558. When discussing the significance of the SDLRS-NE, a Cronbach's alpha of .902 for total-items, and with the Cronbach's alpha results for each subscale being above the minimum desired standard of .70 (Desire-to-learn a = .833, Self-Management

a = .804, and Self-Control *a* = .846), indicate that the SDLRS-NE is a reliable and valid

measurement tool for assessing readiness for self-directed learning within nursing education.

Furthermore, these results were comparable to previous reports within the nursing literature,

strengthening validity and reliability, and future researchers can use the SDLRS-NE for

exploring readiness for self-directed learning in nursing education.

When compared to the current empirical literature, the GQ-6 internal consistency

(*a* = .558) was much lower than previously reported results. Upon exploring this finding more

closely, an item-total correlation was conducted on the GQ-6, to assess internal consistency by

exploring how deleted items influence the Cronbach's alpha results. Table 5.1 displays these

results.

Table 5. 1

Cronbach's Alpha Results if Items Deleted

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I have so much in life to be thankful for.	32.4237	5.593	.495	.487
If I had to list everything that I felt grateful for, it would be a very long list.	32.5593	5.527	.414	.493
When I look at the world, I don't see much to be grateful for.	32.5593	5.285	.316	.507
I am grateful to a wide variety of people.	32.8644	4.912	.443	.455
As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.	32.5424	5.701	.300	.522
Long amounts of time can go by before I feel grateful to something or someone.	33.2373	3.219	.267	.667

From this evaluation, it appears that if question six, "long amounts of time can go by before I feel grateful to something or someone," was omitted, the total Cronbach's alpha would improve to .667, which is much closer to the minimum desired standard of .70. When exploring why the removal of this specific line-item would make such an impact on the overall alpha level, one possible conclusion is that having both negative and positive worded line-items can distort statistical results. Roszkowski and Soven (2010) explains this by stating that "negative items often fail to correlate with total scores, resulting in lower Cronbach's alpha" (p. 119). Furthermore, when researchers mix negatively worded items among positively worded items, this can "introduce artifact rather than guard against acquiescence (yea-saying), resulting in lower validity rather than raising it" (Roszkowski & Soven, 2010, p.118).

Recommendations provided by Roszkowski and Soven (2010) to improve the reliability of the GQ-6 questionnaire would be to either remove the negatively worded items, or to ensure that there are equal numbers of positively and negatively worded items. Overall, more research is needed to evaluate the GQ-6 questionnaire to determine if this measurement tool needs to be revised, or whether a larger sample size would discover that the validity within this sample was attributed to "nonattendance" (Roszkowski & Soven, 2010, p. 129), such as, when participants fail to realize that the direction of the question has changed from positive to negative.

In addition to evaluating the balance of line-items, these items could be adapted to measure one's gratitude toward nursing education. After obtaining permission from the developers' of the GQ-6, the first line-item stating, "*I have so <u>much in life</u> to be grateful for*" could be modified to state, "*I have so <u>much in nursing school</u> to be grateful for,*" which might be a better measure for directional gratitude versus generalized gratitude as it relates to the participants' current learning experience. Adding this detail to the GQ-6 is supported by

Emmons (2013), who suggests that gratitude is found in the details, and when specificity is added, one's feelings about gratitude is enhanced.

Besides adapting the current version of the GQ-6 questionnaire to nursing education, future research may benefit from either a redevelopment of the GQ-6 by adding more line-items, or by comparing the GQ-6 questionnaire to the 44-item Gratitude, Resentment, Appreciation Test (GRAT) developed by Watkins et al. (2003) within nursing education. First, a redevelopment of the GQ-6, or the development of a new gratitude measurement tool, would need to be tested for its psychometric properties, but it could add to the discussion on how gratitude is operationally and conceptually defined. Second, by comparing the GQ-6 with the GRAT 44-item measurement tool, this future research endeavor could strengthen how gratitude is assessed within nursing education, and this comparison could also help researchers better understand the different facets of gratitude and how they relate to one's experiences throughout his/her nursing program. Finally, measuring gratitude within nursing education may also benefit from a measurement tool developed from a qualitative approach; one that focused on how nursing students define gratitude and how gratitude influences their learning experience.

Major Findings

This study examined eight research questions exploring the relationships among gratitude, readiness for self-directed learning, age, and class rank among nursing students enrolled in a four-year baccalaureate nursing program. From this exploration, several significant findings emerged. First, there is a small, but significant, positive relationship between gratitude and readiness for self-directed learning ($r = .359$, p = .005; $\rho = .358$, p = .005). Second, when examining the relationship between gratitude and the three subscales of readiness for self-

directed learning (i.e., Desire-to-Learn, Self-Control, and Self-Management), there was a small, but significant relationship between gratitude and Desire-to-Learn (r = .355, p =.006; ρ = .314, p = .016), and between gratitude and self-control (r = .295, p = .023; ρ = .283, p = .030). Third, there is a small, but significant, positive relationship between age and Desire-to-Learn (ρ = .259, p = .048). Also, there is a statistically significant difference between age groups (those less than 25-years of age versus those greater than 25 years of age) and the subscale of Desire-to-Learn (U = 253.5, p = .028). Finally, although results were interpreted with caution, multiple regression testing indicated that gratitude is a better predictor of Desire-to-Learn and Self-Control, than age or class rank.

Other important findings from this study is noting that there is not a significant relationship between gratitude and Self-Management (r = .226, p = .085; ρ = .235, p = .074). Second, there was not a significant relationship between gratitude and age (ρ = .040, p = .762), or between gratitude and class rank (r = .227, p = .084). Furthermore, there was not a significant relationship between age and Self-Management (ρ = -.100, p = .451), or between age and Self-Control (ρ = .163, p = .217). Also, when exploring the differences between groups, findings suggest that there is not a significant difference between class rank and either gratitude nor readiness for self-directed learning. Finally, when applying multiple regression to these variables, neither gratitude, age, nor class rank were significant predictors for Self-Management.

Discussion

Although correlation does not equal causation, the findings from this study are supported by current literature, and the concepts under investigation here can be applied to multiple fields of research and practice. For example, with the aim of Positive Psychology to change the focus from a preoccupation of "repairing the worst things in life to building the positive qualities"

(Seligman & Csikszentmihalyi, 2000, p. 5), research on gratitude can focus on building positive learning experiences. Hence, the value of this study is that it allows researchers to move beyond the broader scope of Positive Psychology to determine how certain positive emotions (i.e., gratitude) influence one's readiness for self-directed learning. This can lead to new research questions and future empirical testing. Within this discussion, significant findings are examined by referring back to the current literature, implications for practice are provided, and finally, recommendations for future research are offered to expand this emerging area of research.

What is known from this study is that there is a small, but significant, positive relationship between gratitude and readiness for self-directed learning ($r = .359$, p $= .005$; $\rho = .358$, p $= .005$), and at a deeper level, there is a positive relationship between gratitude and desire-to-learn ($r = .355$, p $= .006$; $\rho = .314$, p $= .016$), and between gratitude and self-control ($r = .295$, p $= .023$; $\rho = .283$, p $= .030$). To explore the magnitude of these relationships, a coefficient of determination was conducted to explore the amount of variance among variables. Results indicated that 11.4% ($r^2 = .114$) of the variance in readiness for self-directed learning was accounted for by gratitude, and when exploring the variance among desire-to-learn and self-control, gratitude accounted for 12.6% ($r^2 = .126$) of the variance in desire-to-learn and 8.7% ($r^2 = .087$) of the variance in self-control.

Connecting these major findings to the current literature can be found in the assumptions made about adult learners. In Tennant's (2006) summary of these assumptions, three characteristics of self-direct learning connect with gratitude. The first assumption is that, "for adults the more potent motivators [for learning] are internal" (Tennant, 2006, p. 9). Gratitude relates to this characteristic of self-directed learning, because gratitude could be seen as an important source of internal motivation for learning. More specifically, desire-to-learn has been

defined as "learning for the love of intellectual challenge, or desire to achieve mastery of a topic, or practice for the satisfaction it brings" (Merriam & Bierema, 2014, p.147). One could speculate that gratitude, which is known to build both personal and social resources (Fredrickson, 2001; Tsang, 2007), can motivate one's readiness for self-directed learning by becoming more aware and appreciative of not only the learning experience itself, and its outcomes, but also by acknowledging those who have helped during the process. For example, as one's gratitude increases (e.g. more people to thank or appreciate), one is more motivated (has greater desire) to either embark on a new learning endeavor, or remain persistent in one's current learning goal.

From a positive psychology perspective, there is a strong connection between gratitude and a desire-to-learn. Peterson and Seligman (2004) state that having a love of learning is an important character strength for becoming cognitively engaged, and that this particular character strength "has important motivational consequences in that it helps people to persist in the face of setbacks, challenges, and negative feedback" (p. 163). They go on to state that, "people who experience a love of learning appear more likely than others to appreciate what they learn" (p. 169). Although a love of learning was not studied in 2004 when Peterson and Seligman listed it as a character strength, the findings from this study supports this connection by establishing that there is in fact a positive correlation between gratitude and a desire-to-learn.

When exploring the positive relationship between gratitude and self-control, an important connection is made with the finding that when there is an increase in gratitude, there is also an increase in one's sense of cohesion (Lambert et al., 2009). For clarity, self-control has been defined as "the process whereby the learner takes responsibility for the construction of personal meaning" (Garrison, 1997, p. 24), and sense of coherence is defined as "the set of beliefs that life is manageable, meaningful, and comprehensible, and it is considered to be a personal resource"

(Lambert et al., 2009, p. 462). Therefore, the ways in which sense of coherence connects gratitude to self-control is that "gratitude could lead a person to believe that he or she deserves positive outcomes and is capable of obtaining such outcomes" (Lambert et al., 2009, p. 462). It is this positive reframing or finding greater meaning in one's experiences that can motivate or strengthen one's level of self-control by actively taking responsibility for one's own learning needs and goals. Also, increases in self-control could result in feelings that the learning experience is more manageable and more comprehensible. For example, if I am more grateful for the learning experience, I see my learning experience as more manageable and meaningful, which increases my ability to or desire to take on greater and greater responsibility for my own learning.

These positive associations are especially important when exploring how the learner deals with the variety of stressors associated with learning, by asking the question: Can gratitude help the learner overcome educational setbacks, or does gratitude help the learner to refocus on his or her learning goals when challenges arise? According to Tennant's (2006) summary, the self-directed learner has "the ability to detect and cope with personal and situational blocks to learning, and [has] the ability to renew motivation" (p. 10). Wood, Joseph, and Linley's (2007) study connects these self-directed learning characteristics to gratitude, when they discovered that there is a positive relationship between gratitude and adaptive coping strategies. From this study, the researchers concluded that "grateful people generally use more positive coping strategies, which seem broadly characterized by approaching problems using positive reinterpretation and growth, active coping, and planning, rather than avoiding the problem (behavioral disengagement, self-blame, substance use, and denial)" (Wood et al., 2007, p. 1088). These actions imply a degree of choice or a specific appraisal tendency when choosing to take on the

responsibility for learning, but how does gratitude, through positive reframing, influence this choice? As suggested above, seeing the benefits in one's experience makes the overall experience more manageable, thus improving self-control. The other suggestion is that by reframing a negative event into a positive, such as, I can learn from my mistakes, the learner can redirect or refocus his or her self-control to accomplish either a previously established learning goal, or develop a new learning goal that has emerged from a self-identified mistake.

Implications for Practice

Gratitude has several important implications for practice, and these include both internal and external benefits. The gratitude literature has consistently demonstrated that the development of gratitude enhances social relationships and overall well-being (Fredrickson, 2001; Tsang, 2007; Wood et al., 2007). How this translates into practice is in the ways gratitude can influence the learning environment. Algoe, Fredrickson, and Gable (2013) concluded that, "the unique weight that gratitude carries is cultivating social bonds" (p.605), and these social bonds aid in not only the development of high-quality relationships, but also strengthens those relationships already established. Currently, the social benefits of gratitude within the learning environment have been explored by Vess and Russell (2014), who suggest that gratitude is an important social resource for building a positive classroom culture, because "gratitude creates an outward focus, or a growing desire to build stronger relationships with others, and this may lead to openness and engagement" (p. 2). This openness and engagement, in turn, "provides students with opportunities to cultivate their own gratitude, and by seeing the benefits of gratitude, educators are able to provide students with an alternative lens for interpreting their learning experiences" (Vess & Russell, 2014, p. 4). Finally, what gratitude brings to the learning environment is that

gratitude can create the necessary positive conditions for supporting and developing a love of learning.

To add depth to gratitude's potential impact and future directions for learning, Russell and Vess (2014) developed a conceptual model to demonstrate how reflective gratitude journaling can improve student well-being. The C.A.R.I.N.G. Model is a recursive process involving six essential steps directed at developing the student's overall well-being (see figure 5.1).
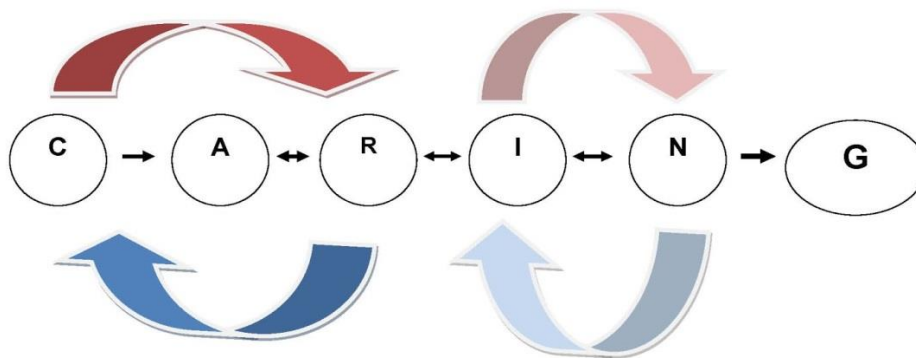

Figure 5. 1

The C.A.R.I.N.G Model Created by J.A. Russell and K.R. Vess (2014)

Within the C.A.R.I.N.G Model, the learner can use reflective gratitude journaling to develop the proactive coping skills necessary for overcoming the myriad of stressors associated with learning. The process begins with self-compassion, which allows the learners to look past his or her inadequacies to focus on individual strengths. After adjusting one's mind-set to focus on strengths versus weaknesses, a recursive cycle of acting and reflecting on one's learning experience occurs. This allows the learner to gain awareness of his or her emotional boundaries to develop strategies for obtaining the resources needed to build relationships and for developing

a grateful disposition. Next, Russell and Vess (2014) utilizes the concept of intentionality to describe this process of making a choice, stating that "in the intentionality phase, students engage in a planning process for developing [his or her own] well-being" (p.2). This increases the student's abilities to navigate the learning environment, which ultimately leads to more self-regulation, or the ability to regulate one's own feeling and emotions in response to their experience. Therefore, the value of reflective gratitude journaling within this process is that when "students write, reflect, and discuss how gratitude shapes their worldview, they can make greater connections between their past experiences and their ideal future selves" (Russell & Vess, 2014, p. 3). Overall, the impact of this type of self-regulation on learning is to suggest that this ideal future self creates an interest, or a motivation for learning that is internally driven versus externally applied through task-oriented goals (Peterson & Seligman, 2004).

Moving outward to the everyday practice of nursing, gratitude may have important implications in how one approaches his or her everyday work. More research is needed within this area, but it would be important to determine how practicing an attitude of gratitude influences the nurse-patient relationship. A nurse enters a patient's life during times of great joy (e.g. birth of a child) and great sorrow (e.g. death of a loved one), and being grateful for these moments may be at the heart of gratitude's impact on professional practice. When reflecting on these experiences with gratitude, the following may occur: increased job satisfaction, heightened sense of humility and empathy, and an increased ability to identify patient needs because one is truly present with his or her patient. As a result, these grateful reflections would only amplify the giftedness of professional nursing practice.

Future Directions for Research

As stated in Chapter One, one of the goals for this correlational study was to generate new research questions for future experimental testing. This section proposes five new research questions that can guide future research agendas related to gratitude and readiness for self-directed learning.

New Research Questions:

1. Are there certain learning experiences that develop gratitude?

2. What are nursing students grateful for?

3. How does gratitude motivate learning?

4. If SDL is a blend of attitudes, values, and abilities that predispose learners' capacity for SDL, what influence does the development of gratitude have on one's readiness for SDL?

5. What influence, if any, does self-directed learning strategies have on the development of a practice of gratitude?

These research questions can be explored using both qualitative and quantitative research methods. For example, with a larger, more diverse sample, differences between groups, multiple regression, and pre-test, post-test designs can explore how gratitude and readiness for self-directed learning interact, and how the development of gratitude influences one's readiness for self-directed learning. Also, the current literature is limited in qualitative analyses on gratitude (Watkins, 2014) and how certain learning experiences influence one's level of gratitude. By using the participants own words, researchers can gain insights into how gratitude is defined and experienced. Finally, Watkins (2014) suggests that how people learn to be grateful or how gratitude interventions are implemented are important areas for future research, and it is here

where the learning principles of self-directed learning may strengthen the bond between the ways

in which one learns and how they develop a practice of gratitude.

Another recommendation would be to explore the relationships among gratitude, other

positive psychology character strengths, and self-directed learning. For example, Peterson and

Seligman (2004) state that "relatively little is known about how self-control is acquired and

strengthened, and this topic must be regarded as a high priority for further research" (p. 508).

With this in mind, it may be fortuitous to explore how a gratitude intervention influences a

student's sense of self-control. Also, what connection does gratitude have with the character

strength of citizenship, and how do these attributes influence the learning environment?

Currently, citizenship is defined as "a feeling of identification with a sense of obligation to a

common good that includes the self but stretches beyond one's own self-interest" (Peterson &

Seligman, 2004, p. 371). This exploration may help to expand the philosophical underpinnings of

gratitude by connecting citizenship with a sense of indebtedness after receiving an unmerited

gift. Stated another way, education itself is an unmerited gift, a debt that cannot be repaid, but it

may instill a sense of obligation to support a common good that stretches beyond personal

interest.

Conclusion

This study has provided evidence that there is a small but significant, positive

relationship between gratitude and readiness for self-directed learning. From these results, data

indicate that as one's level of gratitude increase, one's desire to learn, and one's level of self-

control also increases. The importance of this study is that it increases the awareness of how

certain positive emotions (e.g. gratitude) influences one's readiness for self-directed learning. It

suggests that gratitude can be an important personal and social resource for navigating through

the learning process, and for developing the essential skills for overcoming educational stressors or set-backs. Also, new research questions have emerged from this study, which can guide future research endeavors to explore gratitude's impact within an educational setting. Gratitude as a researchable topic can best be summarized using the following quote by Emmons (2004), who states "given that gratitude is a fundamental attribute of human beings and a potential key to human flourishing, we should endeavor to learn as much as we can about its origins, its forms of expression, and its consequences for individual and collective functioning" (p. 13). Therefore, as Emmons suggests, gratitude can provide researchers with the unique opportunity to explore not only how positive emotions influence the individual experience of learning, but also how gratitude influences the collective experience.

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Appendices

Appendix A.
PARTICIPANT INFORMATION SHEET
THE UNVIERSITY OF TENNESSEE-KNOXVILLE

PROJECT TITLE:
Examining the Relationships between Gratitude and Readiness for Self-Directed Learning
Factors in Undergraduate Nursing Students.

INVITATION:
You are being asked by, Kellee Vess RN, MSN, a doctoral student from the University of
Tennessee, to take part in a research study aimed at exploring the relationships between gratitude
and the factors of readiness for self-directed learning among nursing students enrolled in a four-
year baccalaureate nursing program in the Southeast United States.

The design of this study is a correlational design aimed at exploring potential relationships
between key variables, meaning that this design cannot determine cause and effect.

The objectives of this research study include (a) identifying gratitude as a possible resource for
self-directed learning, (b) determining if there is a significant relationship between gratitude and
readiness for self-directed learning, (c) determining if there is a significant relationship between
gratitude and readiness for self-directed learning by age and class rank, and finally, (d) the
information obtained from this study will be used to generate new hypotheses for future
experimental testing.

INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY
You are being asked to open a secured/ anonymous survey link. Once you open the secured link,
you will be asked to answer two demographic questions: your age and class rank (i.e., junior
nursing student or senior nursing student). Next, I will be asked 46-questions related to gratitude
and readiness for self-directed learning.

TIME COMMITMENT:
Time requirements for completing the online survey will be approximately 15-30 minutes.

PARTICIPANTS' RIGHTS
You may decide to stop being a part of the research study at any time without explanation. You
have the right to ask that any data you have supplied to that point be withdrawn/destroyed. You
will still be paid for your contribution (or as appropriate, e.g., "and without penalty").

BENEFITS
Possible benefits of my participation in this research include assisting the researcher by
providing specific information about gratitude and readiness for self-directed learning factors.
Providing this information allows the researcher to explore these variables across research
disciplines (i.e., nursing, positive psychology, adult education), increases the awareness of other
variables that may influence readiness for self-directed learning, and finally, this information will
aid the researcher in generating new hypotheses for future experimental testing.

RISKS:
There are minimal foreseeable risks associated with completing this survey. However, to control unforeseen risks, Intuitional Review Board [IRB] approval has been granted prior to data collection. Measures to maintain my confidentiality will include online survey security settings will prevent the recording of participants' IP address, email, and name. Finally, there will be no penalties for me choosing not to participate within this study.

COST, REIMBURSTMENT, AND COMPENSATION
Your participation in this study is voluntary and there will be no compensation for completing this online survey

CONFIDENTIALITY/ANONYMITY
Information in the study will be kept confidential. Online data will be password protected, and access to statistical data will be made available only to persons conducting the study. To clarify, an anonymous survey link will prevent the collection of any personal identifiers (e.g. email addresses, name, or IP address). Finally, no reference will be made in oral or written reports which could link participants or participants' institution to the study.

FOR FURTHER INFORMATION
If you have questions at any time about the study or the procedures, you may contact:

Kellee Vess [Primary Investigator]
9845 Cogdill Road
Knoxville, TN 37932
865-777-5109 (Work)
865-851-4209 (Cell)

Sonya Sullivan [Compliance Officer]
University of Tennessee, Office of Research & Engagement
1534 White Ave.
Knoxville, TN 37996
865-974-7697

Thank you for your consideration to participant in this research study.

Appendix B.
Demographic Questionnaire

1. What is your age? _____

2. Select the option below that best describes your class rank.

    a. Junior Nursing Student

    b. Senior Nursing Student

Appendix C.
The Gratitude Questionnaire-Six Item Form (GQ-6)

By Michael E. McCullough, Ph.D., Robert A. Emmons, Ph.D., Jo-Ann Tsang, Ph.D.

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1 = strongly disagree
2 = disagree
3 = slightly disagree
4 = neutral
5 = slightly agree
6 = agree
7 = strongly agree

_____1. I have so much in life to be thankful for.

_____2. If I had to list everything that I felt grateful for, it would be a very long list.

_____3. When I look at the world, I don't see much to be grateful for.*

_____4. I am grateful to a wide variety of people.

_____5. As I get older I find myself more able to appreciate the people, events, and situations

that have been part of my life history.

_____6. Long amounts of time can go by before I feel grateful to something or someone.*

Permission for Use

Appendix D.
Readiness for Self-directed learning in Nursing Education (SDLRS-NE)

By: Fisher, M., King, J., & Tague, G.

Self-directed learning readiness survey-nursing education.

	Never	Seldom	Sometimes	Often	Always
1. I manage my time well					
2. I am self disciplined					
3. I am organized					
4. I set strict time frames					
5. I have good management skills					
6. I am methodical					
7. I am systematic in my learning					
8. I set specific times for my study					
9. I solve problems using a plan					
10. I prioritize my work					
11. I can be trusted to pursue my own learning					
12. I prefer to plan my own learning					
13. I am confident in my ability to search out information					
14. I want to learn new information					
15. I enjoy learning new information					
16. I have a need to learn					
17. I enjoy a challenge					
18. I enjoy studying					
19. I critically evaluate new ideas					
20. I like to gather the facts before I make a decision					
21. I like to evaluate what I do					
22. I am open to new ideas					
23. I learn from my mistakes					
24. I need to know why					
25. When presented with a problem I cannot resolve, I will ask for assistance					
26. I prefer to set my own goals					
27. I like to make decisions for myself					
28. I am responsible for my own decisions/actions					
29. I am in control of my life					
30. I have high personal standards					
31. I prefer to set my own learning goals					
32. I evaluate my own performance					
33. I am logical					
34. I am responsible					
35. I have high personal expectations					
36. I am able to focus on a problem					
37. I am aware of my own limitations					
38. I can find out information for myself					
39. I have high beliefs in my abilities					
40. I prefer to set my own criteria on which to evaluate my performance					

Permission for Use

Self-directed Learning Readiness Scale for Nursing Education - Internet Explorer

https://outlook.office365.com/owa/#viewmodel=ReadMessageItem&ItemID=AAMkADgzZml0ZjJmLWFkMjEtNDIkYi1iYTFlLTM5M2ExN2Q1OWNmMQBGAAAAABe9aBl3VujQq6zqDeqbvTOBwBBxqXHRHLzQaltflq3mTdrAAAAwt%2ByAAA0udZ9xx9AT

Self-directed Learning Readiness Scale for Nursing Education

X DELETE   ← REPLY   ← REPLY ALL   → FORWARD   ···

mark as unread

Vess, Kellee Renee
Mon 19-May-14 8:34 AM

To: grace.tague@sydney.edu.au;

Ms. Tague,

I have just completed my comprehensive exams for a PhD in Educational Psychology with a concentration in adult learning from the University of Tennessee, Knoxville. I am in the process of completing my dissertation proposal and I am very interested in utilizing the self-directed learning readiness scale for nursing education (SDLRS-NE). My interest in this measurement tool is based on the fact that I am an Assistant Professor at a four-year BSN nursing program and this instrument measures the facets of SDL within the context of nursing education. My advisor is Dr. Ralph Brockett and we agreed that this instrument is well developed, supported by the nursing literature, and it would be a good fit for my proposed study.

As for my proposed dissertation study, I plan to use the SDLRS-NE in a quasi-experimental study measuring the effects of gratitude on nursing students' perceived level of readiness for SDL. In preparation for defending my proposal and preparing my IRB I am requesting permission to utilize your instrument.

Please let me know if I may have permission to use this instrument and if you have any questions. Thank you in advance for considering my request.

Thank you,

Kellee Vess, MSN, RN, PhD (c)
Assistant Professor- Nursing
Tennessee Wesleyan College
kvess@twcnet.edu

Doctoral Student
University of Tennessee, Knoxville
kvess@utk.edu

RE: Self-directed Learning Readiness Scale for Nursing Education - Internet Explorer

https://outlook.office365.com/owa/#viewmodel=ReadMessageItem&ItemID=AAMkADgzZml0ZjJmLWFkMjEtNDIkYi1iYTFlLTM5M2ExN2Q1OWNmMQBGAAAAABe9aBl3VujQq6zqDeqbvTOBwBBxqXHRHLzQaltflq3mTdrAAAQo41RAAA0udZ9xx9ATYG

RE: Self-directed Learning Readiness Scale for Nursing Education

X DELETE   ← REPLY   ← REPLY ALL   → FORWARD   ···

mark as unread

Grace Tague <grace.tague@sydney.edu.au>
Tue 20-May-14 10:41 PM

To: Vess, Kellee Renee;

● You replied on 21-May-14 10:46 AM.

Action Items   + Get more apps

Kelle,

Thank you for your email. I would be delighted to give you permission to use this scale.

On another matter, I now coordinate a fully online Masters in Pain Management program (multidisciplinary focus) through the Sydney Medical School, University of Sydney. In addition to the degree program, we also run the following:

- a two week face to face Workshop in Pain Management in February each year
- specialist 1-2 day symposia in various areas of pain management (e.g. Musculoskeletal Pain, Palliative Care) throughout the year
- Webinar series: Managing Patients with Chronic Pain: Learning Through Practice (a structured series of 6 interactive online conferences developing and practicing the skills of cognitive behavioural therapies in chronic pain patients)

For more information, please go to our website:

http://sydney.edu.au/medicine/pmri/

Please contact me if would like to discuss any of these educational opportunities.

Kind regards,

Grace

Appendix E.
Email Reminder

Subject: Reminder Requesting Research Participation

Dear Potential Research Participant,

I, Kellee Vess RN, MSN, a doctoral student from the University of Tennessee -Knoxville, am sending you this email reminder to request your participation in the following research study: *Examining the Relationships between Gratitude and Readiness for Self-Directed Learning Factors in Undergraduate Nursing Students.*

The purpose of this study is to explore the relationships between gratitude and readiness for self-directed learning among nursing students enrolled in a four-year baccalaureate nursing program. A better understanding of these relationships may uncover important resources for developing self-directed learning skills. This investigation benefits both nurse educators and students by gaining a greater awareness of the relationships between gratitude and readiness for self-directed learning. The significance of this study include (a) exploring the key variables across research disciplines (i.e., nursing education, positive psychology, and adult education), and (b) addressing an identified gap within the literature.

As a reminder your participation in this research is voluntary. If you agree to participate please click of the following link provided to access the online survey. If you have already completed this survey I greatly appreciate your assistance with this research study.

INSERT LINK TO SURVEY HERE

If you have any questions or concerns you may contact the following persons

Kellee Vess   Sonya Sullivan
9845 Cogdill Road   IRB Research Compliance Officer
Knoxville, TN 37932   Office of Research & Engagement
865-777-5109 (Work)   1534 White Ave
865-851-4209 (Cell)   Knoxville, TN 37996
                                                                   865-974-7697

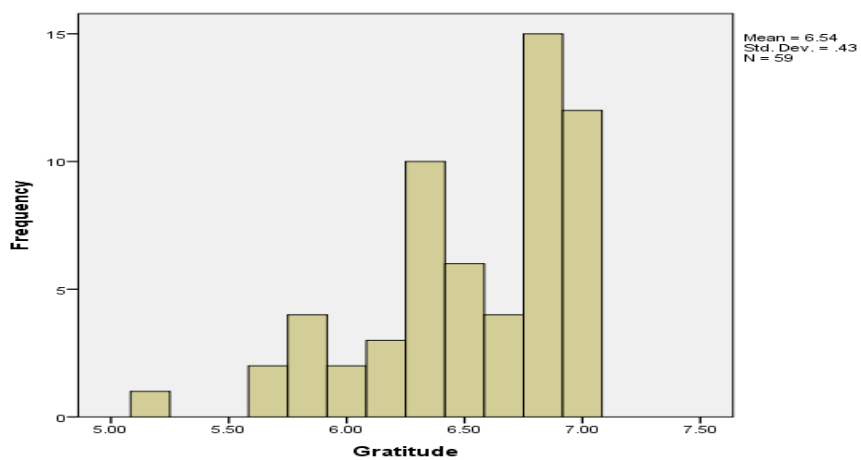**Appendix F**.
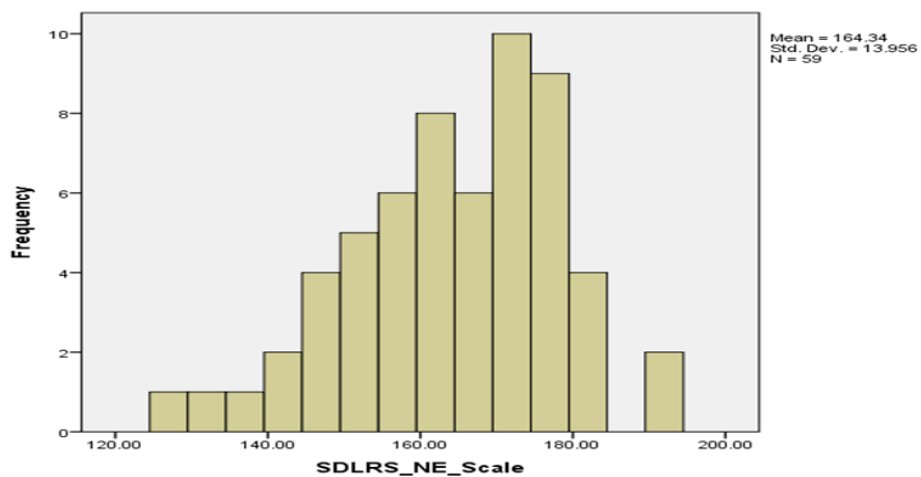Figures

Figure 4. 1

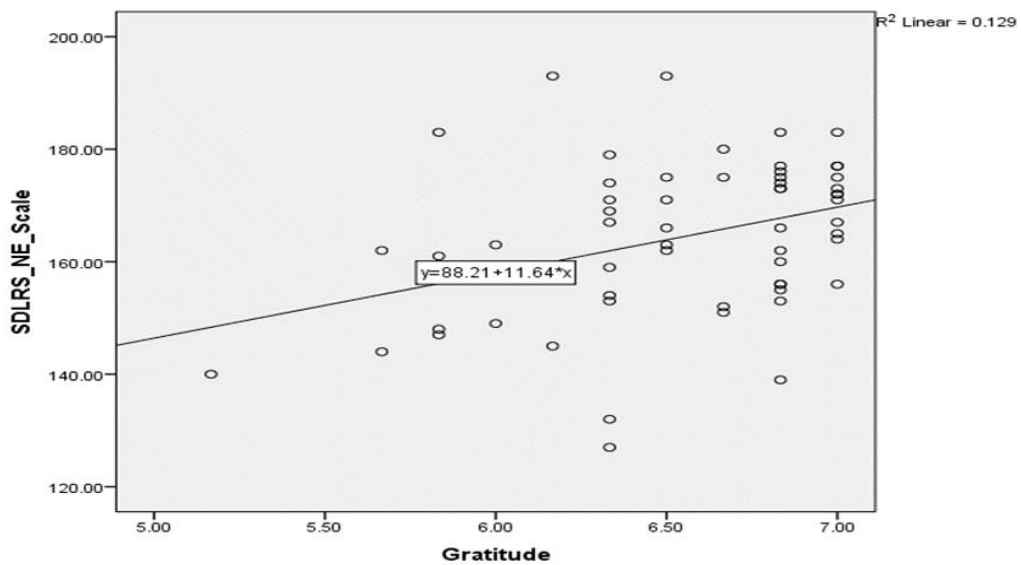*Histogram of GQ-6 Questionnaire*

Figure 4. 2

Histogram for SDLRS-NE Measurement Tool

Figure 4. 3

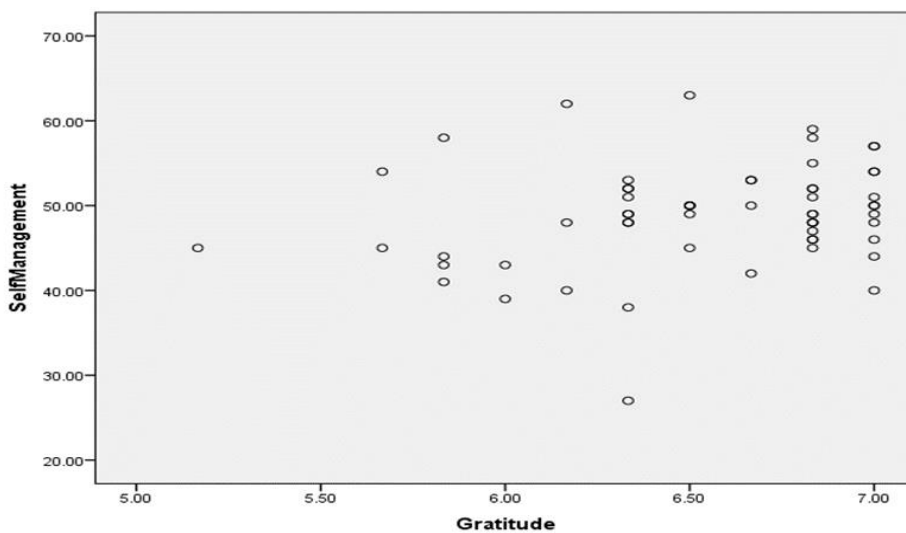*Scatterplot between GQ-6 and SDLRS-NE*

Figure 4. 4

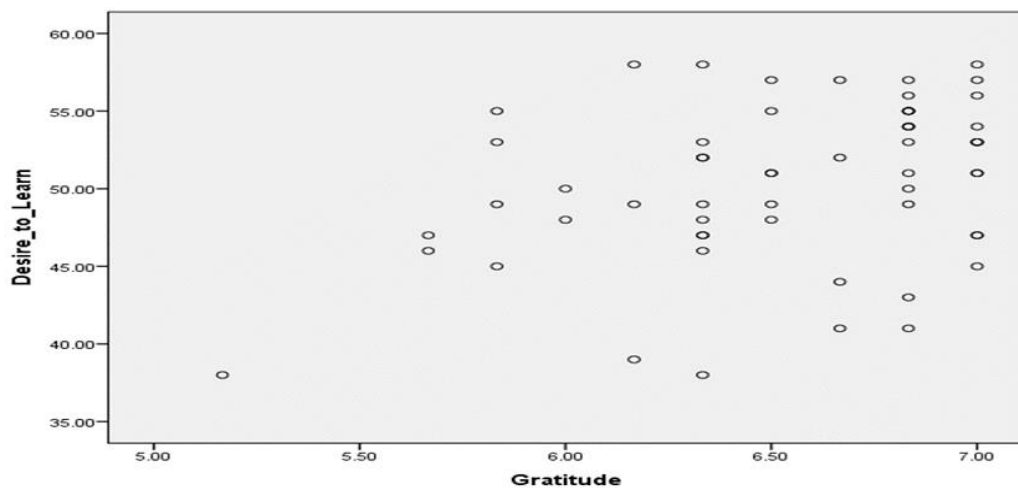*Scatterplot for GQ-6 and SDLRS-NE Subscale: <u>Self Management</u>*

Figure 4. 5

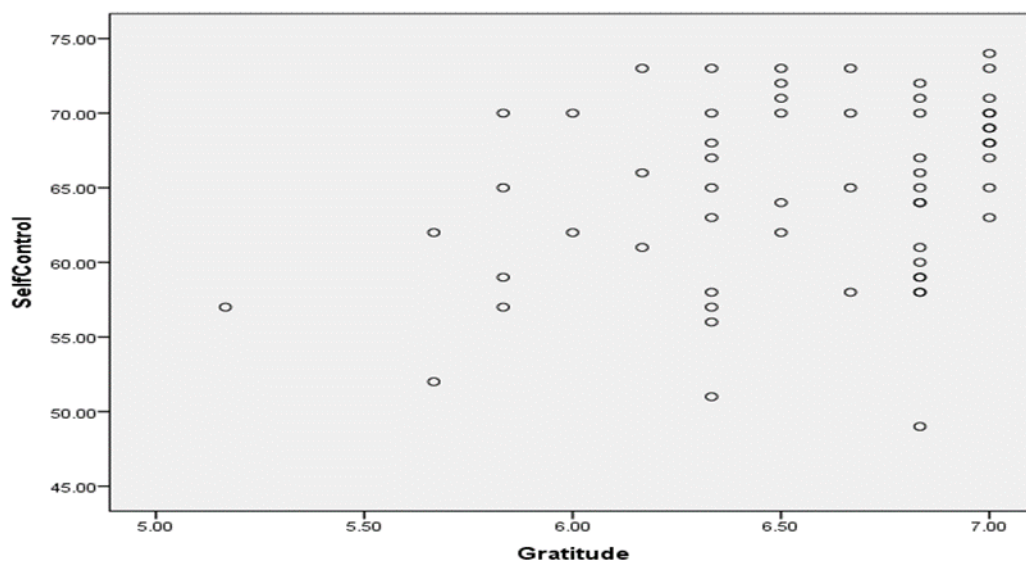*Scatterplot for GQ-6 and SDLRS-NE Subscale: <u>Desire-to-Learn</u>*

Figure 4. 6

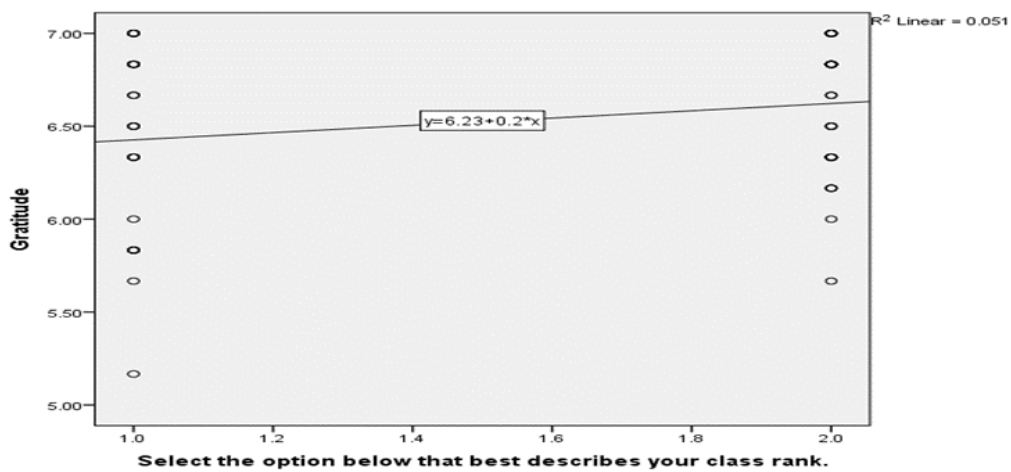*Scatterplot for GQ-6 and SDLRS-NE Subscale: <u>Self-Control</u>*

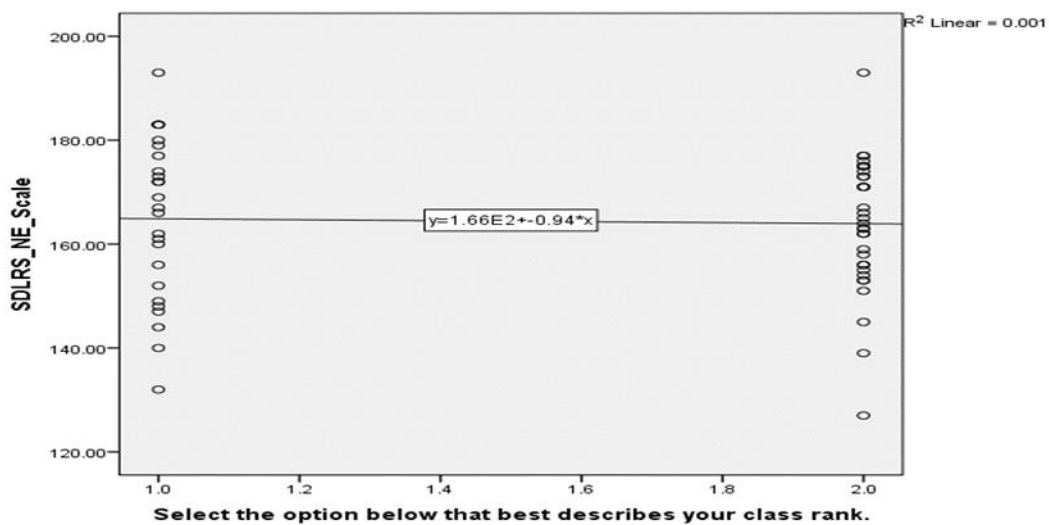Figure 4. 7

Scatterplot between GQ-6 and Class Rank

Figure 4. 8

Scatterplot between SDLRS-NE and Class Rank
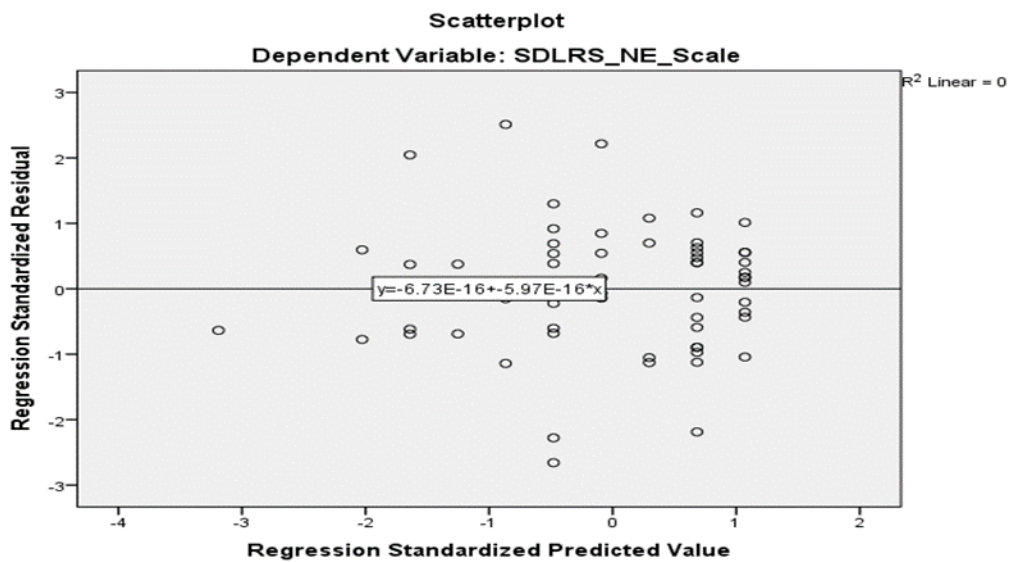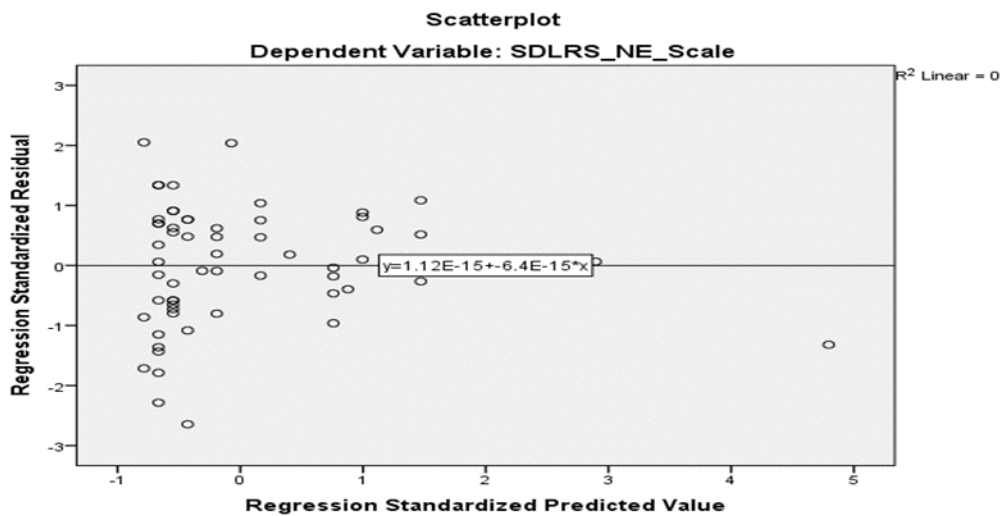
Figure 4. 9

Residual Plots for GQ-6 and SDLRS-NE

Figure 4. 10

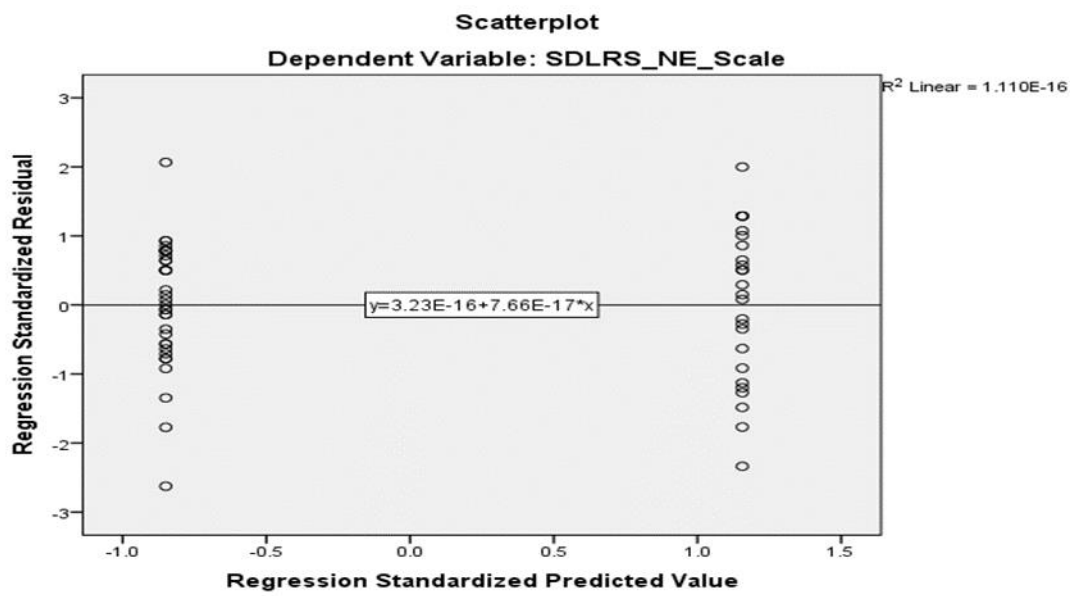*Residual Plots for Age and SDLRS-NE*

Figure 4. 11

Residual Plots for Class Rank and SDLRS-NE

Appendix G.
Summary of Measurement Tools

Table 2.1

Summary of Studies Utilizing the SDLRS Measurement Tool

Study	Method for Establishing reliability or Validity	Significant Findings
Wiley (1983)	Independent Cronbach alpha *a* = .91 total 58-item, no individual alpha reported for the 8 subscales.	(n= 104), results suggest that "persons who prefer low structure benefit from SDL teaching more than those how prefer high structure" (p. 181).
Crook (1985)	Predictive validity; Pearson's correlation coefficient testing Reliability- used Guglielmino's *a*= .87. No independent Cronbach alpha completed.	(n=70), SDLRS scores shows some significance in the relationship between SDLRS and 1st-yr nursing students end scores (.279, p=.01), but this only explained 8% of variance (p. 274).
Linares (1989)	Reliability- used Guglielmino's *a*= .87. No independent Cronbach alpha completed. Compared group means: Current study group means 230 and 233.9 compared to Wiley (1983) group mean of 225.2 and Guglielmino (1980) group mean of 214.4	(n=596), No significant group difference in SDLRS between RN students and Generic Students.
Linares (1999)	Cited Guglielmino's (1989) summary that "a recent analysis of 3,151 SDLRS test scores yielded a Person split-half reliability estimate of 0.94" (Linares, 1999, p. 410). No independent Cronbach alpha completed.	(n=629; 301 generic BSN students, 188 RN-BSN students, 110 allied health students, and 30 faculty). No significant difference in learning styles between faculty and students; faculty are more self-directed than students.

Table 2.1 Continued.

Study	Method for Establishing reliability or Validity	Significant Findings
Williams (2004)	Cited Guglielmino's (1989) summary that "a recent analysis of 3,151 SDLRS test scores yielded a Person split-half reliability estimate of 0.94" (Williams, 2004, p. 279). No independent Cronbach alpha completed.	(n= 148) "no increase in SDLRS scores between year one and year two; however, follow-up qualitative focus groups reveal examples of the characteristics of being a self-directed learner" (p. 277)
Klunklin, Viseskul, Sripusanapan, & Turale, (2010)	Stated Guglielmino's a= .87, and translated Thai version of the SDLRS with a= .93. No independent Cronbach alpha testing completed	(n=272) findings suggest that "overall SDL readiness among nursing students in year 4 was significantly higher than in lower years" (p. 180).
Kim & Park (2011) Korean-translated SDLRS	Stated Guglielmino's a= .87, current study reported a= .85 for total 16-item, 7 factors of readiness for self-directed learning.	(n=202) findings suggest a "hierarchical relationship among belongingness, self-esteem, and self-directed learning" (p. 48).

Table 2.2

Summary of Studies Utilizing the SDLRS-NE Measurement Tool

Study	Method for Establishing reliability or Validity	Significant Findings
Smedley (2007) Smedley (2007) cont...	"Item unidimensionality tested using item to sum correlations" (p. 376). Independent Cronbach alpha on each subscales: Self-management *a*= .810 Desire for learning *a*= .780 Self-control *a*= .844	(n=67) Findings: "comparable results to Fisher's et al (2001) validity and reliability results" (p.376), and self-direction increases with life experience or experience within the nursing program.
Kocaman, Dicle, & Ugur (2007) Adapted to Turkish	Maintained original 40-items for testing. Independent Cronbach *a*=.94(total items), *a*=.87 (self-management), *a*= .86 (desire for learning, and *a*=.88 (self-control)	(n=50), findings support that from T1 to T4 students levels of readiness for self-directed learning increased; supporting SDL as a maturational process.
Yuan, Williams, Fang, & Pang (2012) Adapted to Chinese	Maintained original 40-items for testing, "translation approved by Fisher" (p.428). Cited Fisher et al. (2001) internal consistency results. Independent Cronbach alpha testing completed on 40-item Chinese version: total item *a*= .925, SM *a*=.848, DL *a*=.825, and SC *a*= .863.	(n=485) "Findings likely reflects the maturational process of developing self-directedness" (p. 427). Recommendations for practice provided.
El-Gilany & Abusaad, (2013) SDLRS-NE tested in Saudi undergraduate students	Independent Cronbach alpha on total 40-item scale obtained *a*= .898 (p. 1041) Comparison of group mean between current study and two previous studies Yuan et al. (2012) and Fisher et al. (2001).	(n=275). Evaluated learning styles and SDLRS, findings reveal that "SDLR is not related to students' demographics and learning style. The opportunity to learn through self-direction already exists in undergraduate nursing students" (p. 1043).

Vita

Kellee Renee Vess (kvess@vols.utk.edu) is a Doctoral Candidate at the University of Tennessee, Knoxville in Educational Psychology, with a concentration in Adult Learning. She obtained her Master's Degree in Nursing from East Tennessee State University, Johnson City. She currently works at Tennessee Wesleyan College in Knoxville, Tennessee.